FOURTH ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT

FOR THE LOS ANGELES MEMORIAL COLISEUM RENOVATION PROJECT

State Clearinghouse No. 1990011065

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FOURTH ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT LOS ANGELES MEMORIAL COLISEUM RENOVATION PROJECT

I. Introduction/Background

This document is the Fourth Addendum to the Environmental Impact Report (EIR) prepared for the Los Angeles Memorial Coliseum Renovation Project (State Clearinghouse No. 1990011065), which was certified by the Los Angeles Memorial Coliseum Commission (LAMCC) in December 2003. This addendum specifically addresses modification to the area to the west of the Los Angeles Memorial Coliseum (Coliseum) and the Coliseum District Specific Plan to accommodate the Lucas Museum of Narrative Art proposed by the University of Southern California (USC) on behalf of The Lucas Museum Foundation.

The Draft EIR for the Los Angeles Memorial Coliseum Renovation Project evaluated the renovation of the Coliseum, which included primarily reducing the maximum seating capacity from 92,500 seats to 78,000 seats, the addition of 200 luxury suites, and the construction of two approximate 20,000-square-foot ancillary structures for retail or office use, a 19,000-square-foot press box, and approximately 35,000 square feet of new concession-related facilities. Following certification of the EIR, several modifications were proposed for the Los Angeles Memorial Coliseum Renovation Project. These modifications were addressed in three addenda to the Certified EIR that were approved by the LAMCC and relied upon by the City of Los Angeles (City). These addenda demonstrated that the modifications to the Project would not result in any new significant impacts compared to those evaluated and disclosed in the Certified EIR, or substantially increase the severity of previously identified significant impacts.

The First Addendum was approved by the LAMCC on May 2, 2006, and subsequently considered and approved by the City Planning Commission in conjunction with the approval of the modified Los Angeles Memorial Coliseum Renovation Project, Coliseum District Specific Plan Overlay, and Development Agreement between the City of Los Angeles and the LAMCC on May 16, 2006. The First Addendum evaluated changes to the architectural design, the establishment of a Coliseum District Specific Plan (CDSP) to govern the development and operation of the Coliseum under a proposed lease agreement between the Los Angeles Memorial Coliseum Commission and the National Football League, the adoption of a signage plan, and approval of the sale and service of alcoholic beverages for on-site consumption. The First Addendum also analyzed an increase in the

size of the press box from 19,000 square feet to 25,000 square feet and an additional 4,000 square feet of ancillary structures in addition to the two 20,000-square-foot ancillary structures for retail or office use. Subsequent to completion of the First Addendum, a Development Agreement between the City of Los Angeles and LAMCC was approved in August, 2006. In addition, following the adoption of an MND by the LAMCC in 2009, the City determined the MND was adequate and approved additional modifications to the Coliseum District Specific Plan, including a modification to signage regulations, and a reduction in the CDSP boundaries.

USC signed a long-term lease with the Los Angeles Memorial Coliseum Commission for use of the Coliseum in 2008 that was amended in 2013. The lease agreement, provides for renovations to the Coliseum and management of the Coliseum by USC. USC proposed the renovation of the Coliseum as previously contemplated in the Certified EIR with some modifications. Such modifications primarily included reducing the number of luxury suites, and reducing the size of the press box, concession-related facilities, and ancillary structures. The proposed modifications also included the addition of 24 outdoor loge boxes and 1,065 outdoor club seats. These modifications were addressed in a Second Addendum that was approved by the LAMCC on July 28, 2016.

In addition, a Third Addendum was prepared and approved by the LAMCC in December, 2016. The Third Addendum addressed the replacement of two video boards with two new video boards that would be better integrated into the seating bowl of the Coliseum as well as the replacement of the center Peristyle game clock with a modern smaller integrated game clock.

The Certified EIR, as referred to herein, comprises the Draft EIR, Final EIR, and the First, Second, and Third Addenda to the EIR. In addition, all references hereafter to the "Approved Project" reflect the Los Angeles Memorial Coliseum Renovation Project as evaluated in the EIR and as modified by the three addenda and other approvals.

In accordance with the California Environmental Quality Act (CEQA), this Fourth Addendum analyzes the proposed modifications to the Approved Project to determine whether such modifications would result in any new significant environmental impacts that were not identified in the Certified EIR or a substantial increase in the severity of impacts set forth in the Certified EIR or otherwise require preparation of a supplemental or subsequent EIR.

Provided below are an overview of the CEQA regulations regarding the preparation of an addendum, a description of the modifications to the Los Angeles Memorial Coliseum Renovation Project to accommodate the Lucas Museum of Narrative Art (LMNA) and

associated improvements (Modified Project), and a comparative analysis of the impacts of the Modified Project with those set forth in the Certified EIR.

II. CEQA Authority for an Addendum

CEQA establishes the type of environmental documentation required when changes to a project occur after an EIR is certified. Specifically, Section 15164(a) of the CEQA Guidelines states that:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

Section 15162 and 15163 of the CEQA Guidelines requires the preparation of a Subsequent or Supplemental EIR when an EIR has been certified or a negative declaration has been adopted for a project and one or more of the following circumstances exist:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant

effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Likewise, California Public Resources Code (PRC) Section 21166 states that unless one or more of the following events occur, no subsequent or supplemental EIR shall be required by the lead agency or by any responsible agency:

- Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
- Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
- New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

As demonstrated by the analysis herein (refer to Section IV, Comparative Analysis of Modified Project Impacts, below), while the Modified Project would introduce a new museum use to Exposition Park that would attract additional annual visitors, the Modified Project would not result in any new significant impacts, nor would it substantially increase the severity of previously identified significant impacts. Furthermore, no substantial changes have occurred with respect to the circumstances under which the project is undertaken, nor is there new information of substantial importance, that would result in a new or more severe significant impact. Therefore the modifications resulting from the Modified Project do not meet the standards for a Subsequent or Supplemental EIR pursuant to PRC Section 21166 and CEQA Guidelines Section 15162 and 15163.

III. Project Description

A. Project Location and Existing Conditions

As shown in the aerial photograph provided in Figure 1 on page 5, the LMNA and associated improvements would be located within the western portion of Exposition Park. Exposition Park is comprised of approximately 160 acres of land and is bounded by Exposition Boulevard to the north, Figueroa Street to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west. Exposition Park houses the

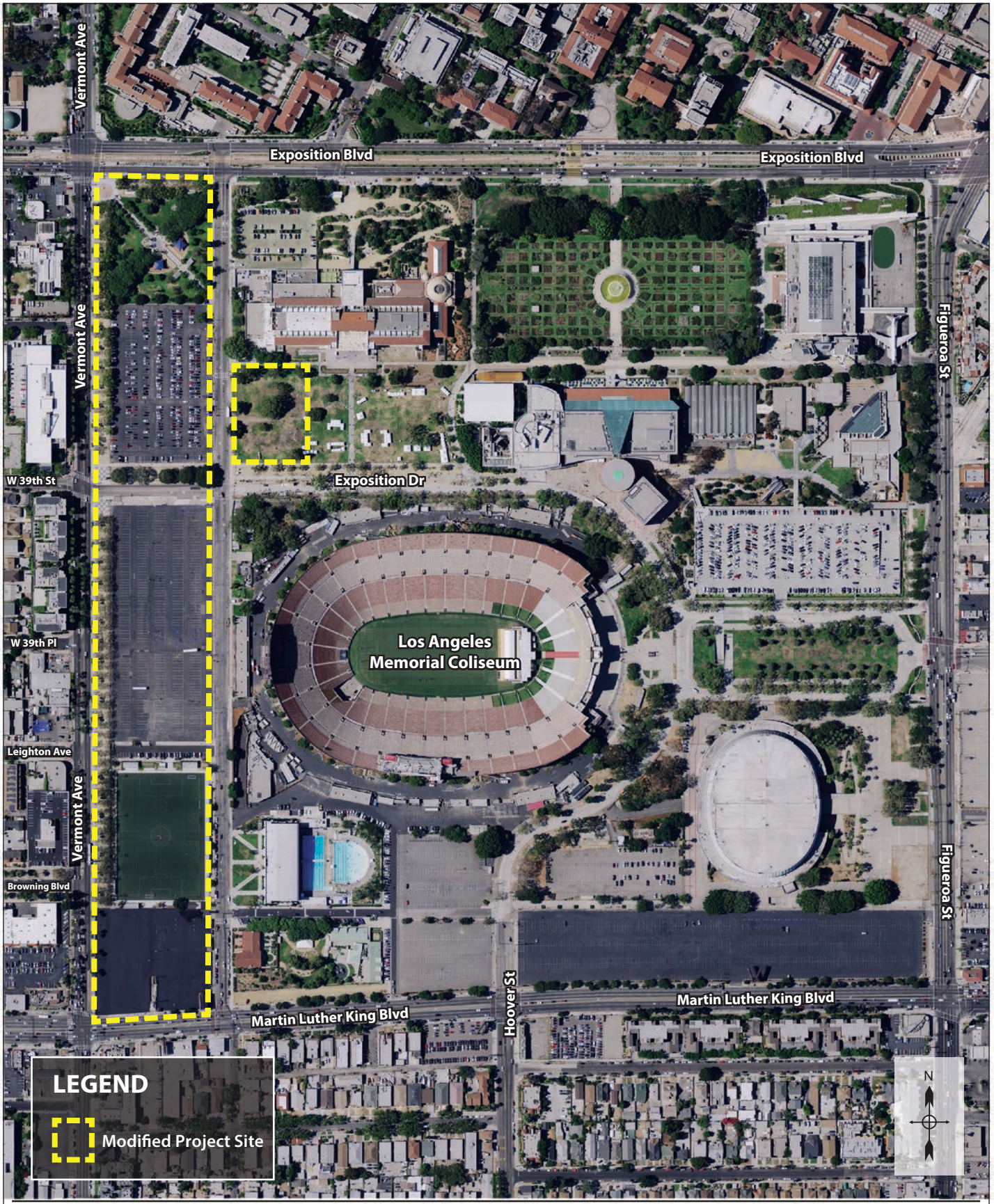


Figure 1
Aerial Photograph of Modified Project Site

Source: Apple Maps, 2017.

Los Angeles Memorial Coliseum, the California Science Center, the Dr. Theodore T. Alexander Jr. Science Center School, the California African American Museum, the Los Angeles County Natural History Museum, the Exposition Park Rose Garden, the Wallis Annenberg Building, the Expo Center, which includes a swim stadium, recreation center, senior citizen center, amphitheater, and pre-school, and the future Banc of California stadium. In addition, there are approximately 6,180 parking spaces within Exposition Park, of which approximately 4,060 spaces are provided within surface lots and 2,160 spaces are provided in the parking structure located west of Figueroa Street. USC's University Park Campus lies adjacent to the north of Exposition Park.

The Modified Project improvements are proposed to be located west of the Coliseum, within a site that is generally bounded by Exposition Boulevard to the north, Bill Robertson Lane to the east, Vermont Avenue to the west, and Martin Luther King Jr. Boulevard to the south.

As shown in the aerial photograph provided in Figure 1 on page 5, the Modified Project Site is developed with surface parking lots that include approximately 1,691 parking spaces, a City operated soccer field to the south, and Jesse Brewer Jr. Park to the north. Landscaping within the site is limited to the landscape improvements in Jesse Brewer Jr. Park and street trees along portions of the periphery of the surface parking areas and soccer field.

Regional access to the Modified Project Site is provided by the Harbor Freeway (Interstate 110), located approximately 0.5 mile to the east. Major arterials in the vicinity include Vernon Avenue, Martin Luther King Jr. Boulevard, and Exposition Boulevard in the east-west direction; and Vermont Avenue, Figueroa Street, Hoover Street, and Flower Street in the north-south direction. In addition, the Metro Expo Line is located just north of the site. The Metro Expo Line runs between downtown Santa Monica and downtown Los Angeles, connecting with the Metro Blue Line, Metro Purple Line and Metro Red Line in downtown Los Angeles. In addition, the site is well-served by 13 bus lines operated by Metro and the LADOT Downtown Area Shuttle.

B. Approved Project

The Approved Project provided for the renovation of the Coliseum and several outbuildings. Modifications included reducing the maximum seating capacity from 92,500 seats to 78,000 seats; the addition of luxury suites, outdoor loge boxes and outdoor club seats; the construction of ancillary structures outside of the Coliseum; a new press box; and new concession-related facilities. In addition, the Approved Project provided for new field amenities and offices, new elevators, improved seating, and improved ADA and service access.

Under the Approved Project, the interior of the Coliseum design would continue to feature the Peristyle as the dominant element the bowl. The Peristyle would be restored and repaired along with the adjacent Coliseum Commission offices. In addition, under the Approved Project, the existing scoreboards, advertising panels, and video boards that are mounted on the Peristyle would be removed. The Approved Project would also construct a single new seating tower that would be below the height of the existing press box. However, the existing shape of the playing field would be retained. In addition, the location of the existing stairs and tunnels would be retained. Thus, the historically significant fabric of the Coliseum would remain intact.

Vehicular access to the field from the exterior of the stadium would continue to be provided via the existing service drive and tunnel from Robertson Lane. Generally, the existing parking arrangement(s) at the Coliseum as part of the Approved Project would remain unchanged except at the southwest quadrant, east of the security building, which would be utilized for media truck and player parking and an ancillary support building. The Approved Project would provide approximately 21,980 parking spaces during Coliseum events via parking structures and lots located at the Coliseum, Exposition Park, and USC.

With completion of the Approved Project, the existing event schedule at the Coliseum would continue.

C. Modified Project

As summarized above, USC, on behalf of The Lucas Museum Foundation, proposes modifications to the Los Angeles Memorial Coliseum Renovation Project to accommodate the Lucas Museum of Narrative Art (LMNA) and associated improvements (the Modified Project) within the western portion of Exposition Park, west of the Coliseum. LMNA, a non-profit museum led by filmmaker George Lucas, would be a one-of-a-kind gathering place to experience art collections, films and exhibitions dedicated to visual storytelling and the evolution of art and moving images in a setting focused on narrative painting, illustration, photography, film, animation and digital art. LMNA would present original work by world renowned and emerging artists, cutting-edge digital technologies, and daily film screenings in state-of-the-art theaters, as well as educational opportunities for students of all ages. The collections would include original, artist-made creations, from sketches to storyboards to sets and costumes from movies. LMNA would also feature public lectures and classes for all ages, hands-on workshops, after-school programs and camps, and a wide variety of additional educational opportunities.

Special tours, talks, workshops and screenings would be tailored to serve the curriculum of students from grammar school to college age. Collection and education programming would include collection presentations, temporary exhibitions, daily film

screenings, film premieres, public lectures, hands-on workshops, school tours and programs, classes for all ages, and campus-wide festivals. LMNA would also include numerous amenities such as a sit-down restaurant, state-of-the-art cinematic theaters, museum store, casual café, lecture halls of various sizes, digital classrooms, video conferencing for guest lectures and workshops, a drop-in library, several spaces available for event rental, and production quality editing classrooms

A Conceptual Site Plan for the Modified Project is provided in Figure 2 on page 9. The LMNA building would comprise approximately 299,717 square feet of floor area. The new building would include five-levels above grade rising to a maximum height of 115 feet. A two-level parking structure, referred to as the Museum Parking Garage, would be located beneath the LMNA. A separate three-level subterranean parking structure, referred to as the Replacement Parking Garage, would be located the south of the LMNA. In total, approximately 2,425 parking spaces would be provided to serve the LMNA and replace the existing surface parking.

In addition, the Modified Project would provide improvements to Jesse Brewer Jr. Park to the north and a portion of Exposition Park to the east. Improvements to Jesse Brewer Jr. Park include an updated play area, improved, water efficient plantings and paving, as well as better integration and circulation between LMNA and the park. Improvements to Exposition Park to the east include improved pedestrian circulation between Exposition Park, the Natural History Museum, the Coliseum and LMNA, as well as incorporation of water- conserving plantings, gathering spaces and improved pedestrian pathways. In addition, to provide for the Modified Project, the existing soccer field would be relocated to the south at the corner of Vermont and Martin Luther King Jr. Boulevard.

As shown in the Conceptual Renderings provided in Figure 3 and Figure 4 on pages 10 and 11, the LMNA building would be elevated at the fourth and fifth levels and would arch over 39th Street with the intent of creating a floating canopy with public park space below. The Project proposes to vacate 39th Street but would continue to use the roadway to function as a limited vehicular throughway that would also provide museum drop zones, museum entrance plazas, and would permit periodic special events in the vacated area that require closure of the throughway. At the ground level, the museum building is split into two wings with two theatres and an entrance lobby located to the north of vacated 39th Street along with a café and museum shop. The ground floor of the south wing would include archive space, and offices with educational space and classrooms located on the second floor. The third level would include a library. The two wings connect at the fourth level that would contain the LMNA's main exhibition spaces. The fifth level would feature additional exhibition space and a sit-down restaurant surrounded by a continuous public roof garden along the museum's perimeter with trees, seating areas, and

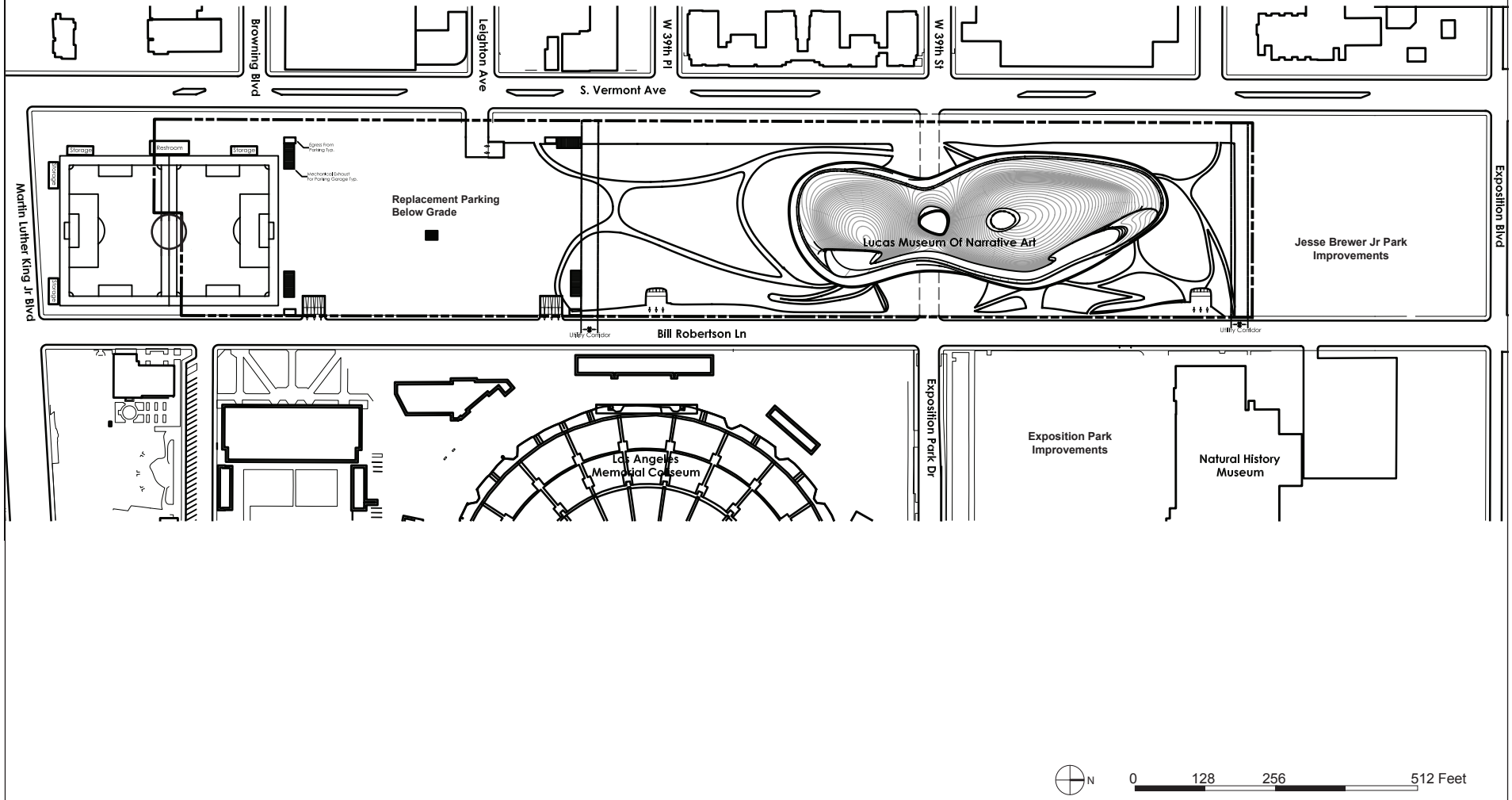


Figure 2
Conceptual Site Plan

Source: Stantec, 2017.



Figure 3
Conceptual Rendering
Bird's Eye View

Source: mad architects, 2017.



Figure 4
Conceptual Rendering View
From Exposition Park

Source: mad architects, 2017.

terraces. From the proposed public roof garden, visitors would experience panoramic views of the surrounding Exposition Park and USC campus, Downtown Los Angeles, and surrounding mountains.

The LMNA would be a focal point and civic gathering space for Exposition Park, providing public programs for the community and interactive landscape elements. The design proposes a network of proximal open spaces with public open space at the ground level comprised of contoured landscaped areas connected by a series of meandering pedestrian walkways that would share visual and functional connections with the Natural History Museum to the northeast, Exposition Park to the east, the Los Angeles Memorial Coliseum to the east, and Jesse Brewer Jr. park to the north.

It is anticipated that the LMNA will attract approximately 1.2 million annual visitors. In addition, the typical daily hours of operation of LMNA would be from 10 A.M. to 7 P.M. with additional special events in the evening from time to time. Special events would be conducted in accordance with a lease with the State of California that would include a requirement for limiting and scheduling LMNA special events to avoid conflicts with other uses in Exposition Park.

(1) LMNA Design Concept and Landscaping

As shown in the Conceptual Renderings provided in Figure 3 and Figure 4 on pages 10 and 11, the LMNA is proposed to undulate like a cloud; the design of the museum building is intended to float over a park landscape with a variety of public spaces facilitating natural social interaction, recreation, and public events. The exterior building surface would be smooth and organic, and intended to complement the surrounding neighborhoods and landscape.

Movement through the galleries is intended to be directed by a path that loops around the “floating cloud,” continuing through a variety of exhibition spaces. Within the gallery cloud, selected views to the surrounding park landscapes would become highlights. The roof landscape is designed as a topographical floating park, with paths and terraces meandering through the greenery and shading trees. The floating landscape blends into the urban scenery of Los Angeles and the views reach from the Hollywood Hills to the skyline of downtown.

As shown in the Conceptual Landscape Plan provided in Figure 5 on page 13, landscaping surrounding the LMNA is intended to provide a park setting that would be integrated with Jesse Brewer Jr. Park to the north and Exposition Park to the east.

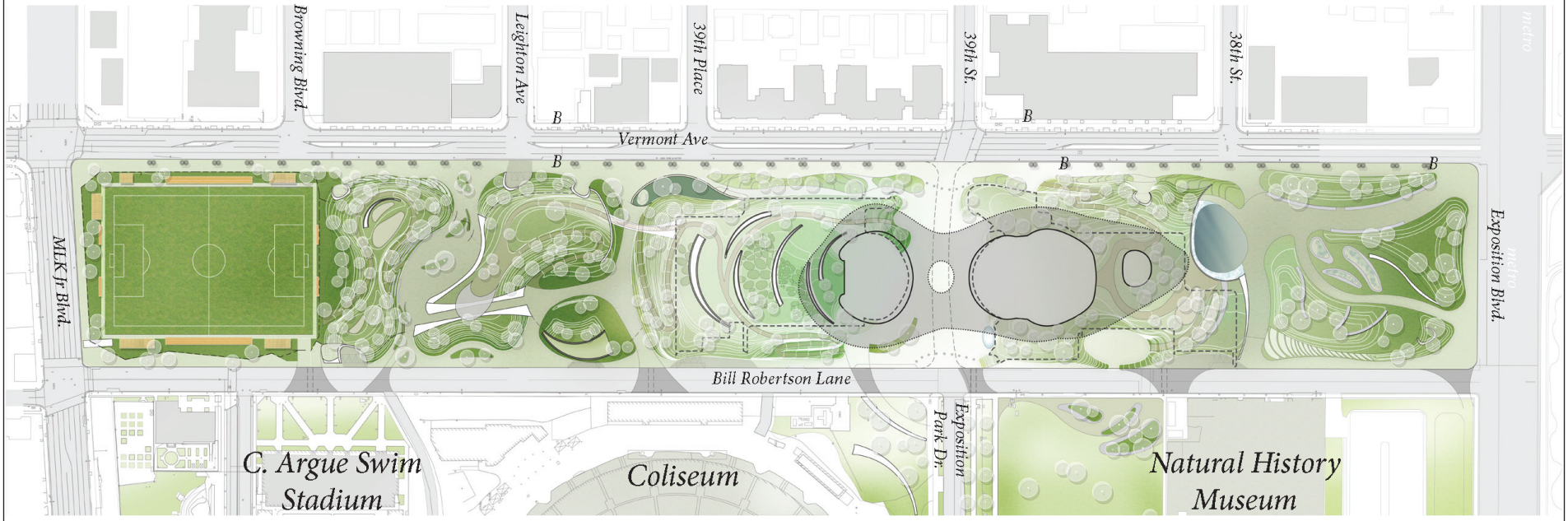


Figure 5
Conceptual Landscape Plan

Source: mad architects, 2017.

Landscaping would include undulating planted slopes that meld with the building and create a varied topography. Pathways and gathering spaces would be integrated into the landscape. Native and drought-tolerant landscaping and unique spaces would be integrated throughout.

(2) Parking and Access

The two-level Museum Parking Garage located beneath the LMNA would provide a total of up to approximately 1,025 parking spaces, including 600 spaces to satisfy LMNA's parking needs and the remainder for the use of the Natural History Museum located on the east side of Bill Robertson Lane. Two full-access driveways would be provided to Bill Robertson Lane—one north and one south of 39th Street. Service access would also be from Bill Robertson Lane. The three-level Replacement Parking Garage located to the south of the LMNA would provide a total of up to approximately 1,400 spaces. It also would provide two full-access driveways to Bill Robertson lane along with a full-access driveway to Vermont Avenue at Leighton Avenue. A new traffic signal would be installed at Leighton Avenue as part of the Modified Project. In total, the Modified Project would provide up to approximately 2,425 parking spaces, for a net increase of up to approximately 734 parking spaces when compared with the existing 1,691 spaces that are located within the Modified Project Site. The approximately up to 2,425 parking spaces would replace the existing parking spaces that would be displaced and would also provide parking for LMNA. In addition, while the net increase of 734 parking spaces would exceed the 599 code-required spaces for the LMNA by 135 spaces, the existing parking count of 1,691 does not account for the existing intermittent use of the soccer field for temporary parking that would be eliminated by the Modified Project. Under the Modified Project there would be no parking on the relocated soccer field as this would adversely impact its upgraded surface. Thus, the additional 135 permanent parking spaces would also serve to offset the loss of temporary parking spaces that would no longer be available within the soccer field.

As mentioned above, the Modified Project also includes the vacation and closure of 39th Street between Vermont Avenue and Bill Robertson Lane. Following vacation, 39th Street would continue to provide public access between Vermont Avenue and Bill Robertson Lane during major events at Exposition Park, but would generally be closed to public traffic.

(3) Lighting and Signage

Modified Project lighting would include architectural lighting for the LMNA building, and exterior lights adjacent to the building and along pathways for aesthetic, security and wayfinding purposes. Further, all exterior and interior lighting would meet high energy-

efficiency requirements utilizing light-emitting diode (LED) or efficient lighting technology. All light sources would be shielded and/or directed toward areas to be illuminated thereby minimizing spill-over onto nearby sensitive areas. In addition, new street and pedestrian lighting within the public right-of-way would comply with applicable City regulations and thus would maintain appropriate and safe lighting levels on both sidewalks and roadways while minimizing light and glare on adjacent properties.

Proposed signage would be consistent with the signage requirements of the Coliseum and Soccer Stadium Sign District, Ordinance No. 184290 (the Sign District). Proposed signage would be designed to be unobtrusive so as not to detract from the character of the new building. Proposed signage would include identification signage and pedestrian and vehicular way-finding and informational signage. Such signage would include lighted pole-mounted, building-mounted, and freestanding signs, as well as lighted kiosks with maps.

(4) Sustainability Features

The Modified Project will be designed and constructed to incorporate environmentally sustainable design features as required by California Green Building Code (CALGreen) and the Los Angeles Green Building Code (LAGBC). In addition, the Modified Project has been designed to implement features that are equivalent to the Leadership in Energy Efficiency and Design (LEED) Gold standards set forth by the U.S. Green Building Council (USGBC). Design features that are anticipated to be implemented by the Modified Project include:

Location and Transportation

- Close proximity to an abundance of public transit options; in particular, the Project would provide a direct and convenient pedestrian pathway within Jesse Brewer Jr. Park that would connect the Metro Station on Exposition Boulevard to the LMNA;
- Bicycle parking; and
- Electric vehicle charging station infrastructure provided in the parking garage in accordance with LAMC requirements.

Sustainable Sites

- Construction activity pollution prevention;
- Stormwater pollution prevention;

- Light pollution reduction in outdoor lighting; and
- New parkland replaces existing asphalt parking lots, reducing the heat island effect.

Water Efficiency

- Water-efficient landscaping for reduction in outdoor water usage;
- Weather or soil moisture-based automatic irrigation system controllers for landscaping;
- Water conserving plumbing fixtures and fittings that reduce indoor water use by at least 20 percent;
- Gray/Rainwater/Condensate recycled water that would be treated and harnessed; and
- Permanent water metering.

Building Design

- Minimum of 15 percent of roof area to have photovoltaic panels installed;
- Implementation of a landscape water feature to provide passive cooling; and
- Incorporation of a high-performance façade that will minimize heat gain/loss.

(5) Modified Project Construction

Construction of the LMNA is expected to occur over an approximate 42-month period of continuous construction activities, beginning in January 2018 with an anticipated completion date in 2021. It is estimated that the proposed improvements would require approximately 101,210 cubic yards of import and approximately 605,747 cubic yards of export. While a portion of this export would likely be utilized as fill material at other construction sites that are more proximate to the Modified Project Site, this Fourth Addendum conservatively assumes that all export would be transported to a more distant landfill. Proposed construction activities would occur in accordance with a Construction Management Plan. Construction on the replacement soccer field would start before construction of the Replacement Parking Garage, although there may be some overlap of construction.

(6) Discretionary Actions

The following discretionary actions are proposed to implement the Modified Project:

- A General Plan amendment to Mobility Plan 2035, an element of the General Plan, to change the street designation of the portion of 39th Street located between Vermont Avenue and Bill Robertson Lane within the Coliseum District Specific Plan as shown on the Citywide General Plan Circulation System Maps and the South Los Angeles Community Plan Circulation Map from a Collector Street to a Local Street;

- Specific Plan Amendment to the Coliseum District Specific Plan that would contain regulations for the development and operation of LMNA that include permitted uses, height, floor area, required parking, open space, and the sale and consumption of alcohol within the museum's restaurant and special event spaces;

- Possible Development Agreement;

- Project Permit Compliance Review for Project compliance with the Specific Plan; and

- Vesting Tentative Tract Map for the merger and resubdivision of the site to create two ground lots and for commercial condominium purposes and to vacate 39th Street between Vermont Avenue and Bill Robertson Lane and a 20-foot-wide public right-of-way, and Haul Route approval.

IV. Comparative Analysis of Modified Project Impacts

A. Aesthetics/Visual Resources

(1) Visual Character and Views

As discussed in the Certified EIR and addenda, the Approved Project would renovate the Coliseum interior and would maintain its same interior shape. In addition, the historically significant fabric of the Coliseum would remain intact. Furthermore, the primary visual alteration to the site visible from the surrounding areas would be the removal of the concession stands, restrooms and other facilities currently randomly lining the yard level of the site. As a result, improved lines of site to the historic Coliseum would be available. Overall, aesthetic and view impacts would be less than significant.

(a) Construction

Similar to the Approved Project, during construction activities for the Modified Project, the visual appearance of portions of the Modified Project Site would be altered due to the removal of surface parking areas, relocation of the soccer field, and development of the LMNA building. Related construction activities including site preparation and grading and the staging of construction equipment and materials would also alter the visual character of the site. However, the perimeter of the Modified Project Site would be screened, which would limit views of construction activities from off-site areas. Given the temporary nature of construction activities and the use of screening to limit views of construction activities, short-term construction activities would not substantially and adversely alter or degrade the existing visual character of the Project Site. Therefore, as with the Approved Project, construction of the Modified Project would not result in any significant impacts with respect to construction-related visual character and view impacts.

(b) Operation

As described above in Section III, Project Description, the Modified Project Site is developed with surface parking lots that include approximately 1,691 parking spaces, a City-operated soccer field to the south, and Jesse Brewer Jr. Park to the north. Aesthetic resources within the Modified Project Site are limited to Jesse Brewer Jr. Park and trees located within the site and along the adjacent streets. Aesthetic resources in the vicinity include the open space areas in Exposition Park and historic features and buildings including the Coliseum, the Natural History Museum, the Los Angeles Swimming Stadium and Exposition Clubhouse, the Exposition Park Rose Garden, North and South Coliseum Drives/Christmas lane and the California Aerospace Museum.

The Modified Project includes a new museum building, subterranean parking, a relocated soccer field, and improvements to Jesse Brewer Jr. Park and the open space area within Exposition Park located to the east of Bill Robertson Lane and south of the Natural History Museum. The LMNA building would comprise approximately 299,717 square feet of floor area and would include five-levels above grade rising to a maximum height of 115 feet. A two-level parking structure would be located beneath the LMNA and a separate three-level subterranean parking structure would be located to the south of the LMNA.

As shown in the Conceptual Renderings provided in Figure 3 and Figure 4 on pages 10 and 11, the LMNA building would be elevated at the fourth and fifth levels and would arch over 39th Street with the intent of creating a floating canopy with public park space below. At the ground level, the museum building would be split into two wings. The fifth level would feature a continuous public roof garden along the museum's perimeter with trees, seating areas, and terraces.

Proposed to undulate like a cloud, the design of the museum building is intended to float over a park landscape with a variety of public spaces facilitating natural social interaction, recreation, and public events. The exterior building surface would be smooth and organic, and intended to complement the surrounding neighborhoods and landscape. A proposed four-story escalator would ascend from the transparent glass museum lobby located on the ground floor beginning a path through the museum's sculptural space.

As shown in the Conceptual Renderings, while several existing trees would be removed to provide for the proposed improvements, the large surface parking areas would be replaced with an expansive park setting that would surround the LMNA and would be integrated with Jesse Brewer Jr. Park to the north and Exposition Park to the east. Landscaping would include undulating planted slopes that meld with the new building and create a varied topography. Pathways and gathering spaces would be integrated into the landscape. Native and drought-tolerant landscaping and unique spaces would be integrated throughout with extensive landscaped setbacks along all sides of the museum building. Thus, implementation of the proposed improvements would not result in significant impacts associated with removal of on-site aesthetic resources. Rather, the new building and extensive landscape improvements would result in an improvement of the aesthetic character of the site when compared with the existing setting that is dominated by surface parking.

The new museum building would be taller than the two to four-story structures located to the west of Vermont Avenue, north of Exposition Boulevard, and south of Martin Luther King Jr. Boulevard in the immediate vicinity. The LMNA building would also be taller than the existing structures to the east across Bill Robertson Lane, the closest of which are the two-story Natural History Museum and the Coliseum, which has an exterior wall that measures approximately 75 feet height (from ground level) and a press box that measures approximately 101 feet in height. However, as discussed above, the LMNA building would be setback from adjacent streets and integrated with a new topographically diverse and unique landscape setting. In addition, Jesse Brewer Jr. Park, the relocated soccer field, and the existing landscaped buffer along Vermont Avenue would separate and visually buffer the new building from other existing buildings along Exposition Boulevard, Marin Luther King Jr. Boulevard and Vermont Avenue. Furthermore, the landscape setting would connect with the Jesse Brewer Jr. Park to the north and Exposition Park to the west, thereby expanding the park setting within the vicinity. In addition, while the contemporary architecture of the LMNA building would vary from several other nearby buildings in the vicinity, the buildings in the vicinity already exhibit a wide range of architectural styles. Overall, the new building and landscape setting would be compatible with surrounding development. Thus, as with the Approved Project, the Modified Project would not result in significant impacts associated with aesthetic compatibility. Refer to Subsection IV.C,

Cultural Resources, below regarding the Modified Project's less than significant impacts associated with compatibility with historic resources.

Given the developed nature of the Project vicinity and the relatively flat topography, view resources are generally limited to elements in the vicinity and include landscaping and historic resources. As discussed above, the Modified Project would expand the park setting of Exposition Park and would also include improvements to Jesse Brewer Jr. Park and the open space area within Exposition Park to the west. Thus, while certain trees would be removed, views of landscape elements would be improved when compared with existing conditions. With regard to views of historic resources, views of the historical resources within Exposition Park are visible from Martin Luther King Boulevard, and Exposition Boulevard. Given the location and orientation of the LMNA building (see Figure 1 on page 5), views of the nearby historic buildings (e.g., the Coliseum, Swimming Stadium and Natural History Museum) would continue to be visible from Martin Luther King Jr. Boulevard and Exposition Boulevard. In addition, while the new LMNA building would be located between Vermont Boulevard and the Coliseum and Natural History Museum, views of these historic structures from Vermont Avenue are already partially blocked by the existing rows of trees that line Vermont Avenue. Furthermore, as discussed in detail in IV.C, Cultural Resources, below, the main entrance to the Coliseum faces Figueroa Street, and the approach to the building from the east is its primary view. In addition, the portion of the Natural History Museum that faces west, toward the LMNA, is utilitarian in function and contains no fenestration or architectural features. Finally, the LMNA building is far enough from the Los Angeles Swimming Stadium and Exposition Clubhouse buildings such that it would not obstruct their view from any angle. Thus, as with the Approved Project, the Modified Project would not result in significant impacts associated with views.

Overall, aesthetics and views impacts under the Modified Project would be less than significant and within the envelope of impacts set forth in Certified EIR.

(2) Light and Glare

With regard to light and glare, no changes were proposed under the Approved Project that would introduce substantial lighting within the area. In addition, all illuminated signs under the Approved Project would have internal or focused lighting and would be designed or located in order to address direct light on adjacent uses. Thus, potential light and glare impacts under the Approved Project were concluded to be less than significant.

(a) Construction

Construction lighting would be limited to short durations during the winter season and would be temporary. Further, construction-related illumination would be used for safety and security purposes only, in compliance with LAMC light intensity requirements. Additionally, the perimeter of the Project Site would be screened and would limit views of construction activities. Therefore, uses which are not adjacent to the Project Site would not be anticipated to be substantially affected by construction light or daytime glare. As such, like the Approved Project, construction of the Modified Project would not result in any new significant impacts with respect to construction-related lighting.

(b) Operation

Modified Project lighting would include architectural lighting for the LMNA building, and exterior lights adjacent to the building and along pathways for aesthetic, security and wayfinding purposes. All exterior and interior lighting would meet high energy-efficiency requirements utilizing light-emitting diode (LED) or efficient lighting technology. In addition, all light sources would be shielded and/or directed toward areas to be illuminated, thereby minimizing spill-over onto nearby sensitive areas. Furthermore, In accordance with Chapter 9, Article 3, Div. 1, Sec. 93.0117(b) of the LAMC, no exterior light would cause more than 2 foot-candles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units. In addition, new street and pedestrian lighting within the public right-of-way would comply with applicable City regulations and thus would maintain appropriate and safe lighting levels on both sidewalks and roadways while minimizing light and glare on adjacent properties. With regard to the relocated soccer field, the new lighting would be directed towards the field and would comply with more recent energy efficiency requirements set forth by Title 24 of the California Code of Regulations as well as the LAMC requirement described above that limits light levels and glare to no more than 2 foot-candles at sensitive residential uses.

Proposed signage would include identification signage and pedestrian and vehicular way-finding and informational signage. Such signage would include lighted pole-mounted, building-mounted, and freestanding signs, as well as lighted kiosks with maps. In accordance with Chapter 1, Article 4.4, Sec. 14.4.4 E of the LAMC, no sign would be arranged and illuminated in such a manner as to produce a light intensity greater than 3 foot-candles above ambient lighting, as measured at the property line of the nearest residentially-zoned property.

With regard to glare, glare is typically caused by direct light sources or direct reflections of light sources. Direct reflection is typically off of highly polished surfaces such as glass, mirror, bright silver paint and even water surfaces. The skin material of the LMNA building would be comprised of a honed or matte finish. Thus, even though the color proposed would be off white, the surface texture would produce a diffuse reflection. As such, the façade would not result in significant glare impacts.

Based on the above, light and glare impacts under the Modified Project would be less than significant and within the envelope of impacts set forth in Certified EIR.

(3) Shading

As discussed above, the LMNA building would extend to up to 115 feet in height. The closest off-site shadow-sensitive use to the Modified Project Site is the open space area within Exposition Park to the east. The maximum shadows that would be generated by the LMNA building would occur during the winter and would be oriented to the north. As shown in the shadow diagrams included in Appendix A, given the location of the shadow-sensitive uses to the east of the site, the Modified Project would not shade the Exposition Park open space area for more than three hours during the winter or four hours during any of the remaining seasons. As such, as with the Approved Project, the Modified Project's potential shading impacts would be less than significant.

B. Air Quality and Greenhouse Gas Emissions

(1) Air Quality

(a) Construction

As discussed in the Certified EIR and addenda, construction-related air emissions under the Approved Project would be generated through activities including demolition, grading, construction worker travel, delivery and hauling of materials, fuel combustion from on-site vehicles, and the application of architectural coating. Construction emissions were conducted assuming an approximately 30- to 36-month construction schedule. Approximately 600,000 cubic yards of earth and approximately 40,000 to 50,000 cubic yards of building material/debris were estimated to be excavated and removed from the site during construction. These construction activities under the Approved Project would exceed the SCAQMD's significance threshold criteria for NO_X, CO, and $PM_{10,}$ while significance thresholds for ROG (equivalent to VOC) and SO_X pollutants would not be exceeded. With the implementation of mitigation measures identified in the Certified EIR and addenda, construction-related emissions would remain significant and unavoidable for NO_X and CO emissions, and PM_{10} emissions would be reduced to less than significant levels. ROG and SO_2 emissions would remain less than significant.

As with the Approved Project, construction of the Modified Project would generate construction-related air emissions through activities such as demolition, grading, construction worker travel, delivery and hauling of materials, fuel combustion from on-site vehicles, and the application of architectural coating. Under the Modified Project, construction is expected to occur over 42-month duration. In addition, it is estimated that the proposed improvements would require approximately 101,210 cubic yards of import and approximately 605,747 cubic yards of export. As shown in Table 1 on page 24, the Modified Project would not exceed any of the current SCAQMD regional and localized construction significance thresholds with incorporation of the Mitigation Measure 9, which requires that off-road diesel-powered equipment used on-site for an aggregate of 40 or more hours during any portion of the construction activities shall meet Tier 4 standards.

This analysis conservatively assumed a round trip import/export haul distance of 38 miles to Puente Hills Landfill, located at 2800 Workman Mill Road, in Whittier, CA. This is equivalent to a total daily import/export haul vehicle miles travelled (VMT) of 9,120 miles. Closer locations may be determined feasible (e.g., other projects requiring fill material) as construction begins, which could reduce overall VMT and impacts, but were not relied upon for purposes of this analysis. As pollutant emissions from haul trucks are directly proportional to VMT, the Modified Project may be able to increase the daily number of truck trips if a closer location is determined feasible, thereby limiting the daily VMT to less than 9,120 miles.

In the event that construction activities associated with the Modified Project would overlap with construction activities analyzed in the Second Addendum, the combined emissions would exceed the SCAQMD regional NO_X significance threshold, as disclosed in the Certified EIR and Second Addendum. For all other pollutants combined construction air quality impacts would remain below regional SCAQMD significance thresholds (i.e., VOC, CO, PM_{10}, and $PM_{2.5}$) and localized SCAQMD significance thresholds (i.e., NO_X, CO, PM_{10}, and $PM_{2.5}$). Furthermore, the combined impacts of the Modified Project and the Coliseum improvements would be substantially less than the impacts disclosed in the Certified EIR. As shown in Table 1, regional NO_X emissions under the Modified Project and Coliseum improvements represent approximately a 66 percent reduction in emissions in comparison to emissions set forth in the Certified EIR. This reduction is primarily a function of cleaner equipment being introduced into the off-road equipment fleet mix that were not contemplated under the Certified EIR. In addition, the Modified Project would comply with Mitigation Measure 9, which requires that off-road diesel-powered equipment used on-site for an aggregate of 40 or more hours during any portion of the construction activities shall meet Tier 4 standards. Tier 4 standards result in an approximate 80 percent reduction in NO_X emissions in comparison to the CalEEMod default off-road equipment mix.

Table 1
Unmitigated Estimate of Regional Modified Project Construction Emissions[a]

Construction Year	Pollutant Emissions (pounds per day)					
	VOC[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Regional Emissions						
2018	10	99	158	<1	15	4
2019	5	39	84	<1	8	2
2020	18	37	80	<1	8	2
2021	7	62	78	<1	8	2
Maximum Construction Emissions	18	99	158	1	15	4
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(57)	(1)	(392)	(150)	(135)	(51)
Exceed Threshold?	No	No	No	No	No	No
Comparison of Combined Modified Project and Coliseum Improvements to the Approved Project in the Certified EIR						
Combined Emissions	29	207	228	<1	12	7
Approved Project Emissions	57	638	349	6	214	214
Percent Decrease	(66%)	(68%)	(35%)	(94%)	(88%)	(95%)
Localized Emissions						
2018	----	10	62	----	7	1
2019	----	13	3	----	<1	<1
2020	----	13	3	----	<1	<1
2021	----	13	2	----	<1	<1
Maximum Daily Localized Emissions	----	13	62	----	7	1
SCAQMD LST[c]	----	95	1,861	----	16	8
Over/(Under)	----	(82)	(1799)	----	(9)	(7)
Exceed Threshold?	----	No	No	----	No	No

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Attachment A (CalEEMod Output) of this document.*

[b] *Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

[c] *Maximum active construction activities would conservatively occur on approximately 5 acres at a distance of approximately 25 meters from sensitive land uses (the shortest distance available for LSTs). Potential localized construction impacts were evaluated using SCAQMD's LSTs for SRA 1.*

Source: Eyestone Environmental, 2017.

Overall, under the Modified Project the significant and unavoidable regional NO_X, CO and PM_{10} impact disclosed in the Certified EIR would be less than significant. In addition, the construction-related air quality mitigation measures set forth in the Certified EIR and addenda would continue to be implemented with the Modified Project. Similar to the Approved Project, construction-related impacts regarding toxic emissions and objectionable odors would be less than significant. Overall, construction impacts under the Modified Project would be less than those set forth in the Certified EIR and addenda.

(b) Operation

The severity of potential air quality impacts under the Approved Project were directly proportional to the level of attendance and resulting numbers of vehicles attracted to the Coliseum vicinity. Under the Approved Project, the maximum seating capacity of 92,500 seats was reduced to approximately 78,000 seats. However, the number of events within the Coliseum would increase. As discussed in the Certified EIR and First Addendum, when compared with a non-event day, regional air pollutant emissions during an event day with maximum seating capacity would exceed SCAQMD thresholds for ROG, NO_X, CO, and PM_{10} emissions while the threshold for SO_X emissions would not be exceeded. Thus, significant regional air quality impacts would occur. The Approved Project would result in less than significant localized CO impacts at potentially impacted intersections.

The Modified Project would not increase number of events at the Coliseum, and would not change the seating capacity or anticipated attendance levels from the Approved Project. However, the LMNA would generate additional trips within the vicinity.

Operational emissions were calculated for the Modified Project and are included in Table 2 on page 26. As shown therein, the Modified Project would result in regional operational emissions that are below SCAQMD regional operational daily significance thresholds.

As with the Approved Project, the Modified Project would also result in less than significant localized CO impacts at potentially impacted intersections. None of the intersections analyzed in the Traffic Study for the Modified Project meet the SCAQMD criteria for requiring a local CO hotspot analysis.[1] Overall, operational impacts would be within the envelope of impact set forth in Certified EIR and addenda.

[1] *The SCAQMD recommends an evaluation of potential localized CO impacts when a project causes the level of service (LOS) at a study intersection to worsen from C to D, or if the project increases the volume-to-capacity (V/C) ratio at any intersection rated D or worse by 2 percent or more.*

Table 2
Project Regional Operational Emissions—Buildout (2021)[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Regional Emissions						
Area	7	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile	3	13	32	<1	9	2
Total Proposed Uses Emissions	10	14	33	<1	9	2
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(45)	(41)	(327)	(149)	(141)	(53)
Exceed Threshold?	No	No	No	No	No	No
Localized Emissions						
Area	----	<1	<1	----	<1	<1
Energy (Natural Gas)	----	1	1	----	<1	<1
Maximum Daily Localized Emissions	----	1	1	----	<1	<1
SCAQMD LST[c]	----	95	1,861	----	16	8
Over/(Under)	----	(94)	(1,860)	----	(16)	(8)
Exceed Threshold?	----	No	No	----	No	No

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Attachment A (CalEEMod Output) of this document.*

[b] *Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

[c] *Maximum active operational activities would conservatively occur on approximately 5 acres at a distance of approximately 25 meters from sensitive land uses (the shortest distance available for LSTs). Potential localized operational impacts were evaluated using SCAQMD's LSTs for SRA 1.*

Source: Eyestone Environmental, 2017.

(c) Mitigation Measures

The mitigation measures that were included in the Certified EIR and addenda would continue to be implemented as part of the Modified Project. In addition, as shown in underline below, Mitigation Measure 9 has been added to the construction mitigation measures as shown in underline below.[2]

[2] *CEQA Guidelines Section 15164 allows for some necessary changes and/or additions to the Certified EIR as long as the conditions that require the preparation of a Subsequent EIR described in Section*

(Footnote continued on next page)

Construction Phase

1. Haul trucks shall be staged on-site in the vacant parking areas within Exposition Park. Haul truck staging plan shall be subject to review by the City of Los Angeles Department of Building and Safety and the Department of Transportation. Trucks shall be called to the site by radio dispatch.

2. Diesel-powered equipment shall be located as far away as possible from sensitive land uses and areas. Specifically, diesel compressors, pumps and other stationary machinery shall be located to the extent feasible on the south side of the Coliseum or within the interior of the Coliseum to avoid air pollution impacts on passive recreational spaces in Exposition Park (such as the area north of the Coliseum and south of the museum complex). **[Note that the second sentence of this Mitigation Measure is not applicable to the Modified Project]**

3. Grading activities shall be restricted on exceedingly windy days (winds in excess of 25 mph) when fugitive dust emissions are likely to be carried off-site. All truck loads of export debris shall be covered or shall provide at least 2 feet of freeboard.

4. Ground wetting shall be required in accordance with SCAQMD Rule 403 for dust control during grading and construction.

5. Contractors shall cover any stockpiles of soil, sand and similar materials.

6. Equipment engines shall be maintained in proper tune.

7. Construction equipment shall be shut off to reduce idling when not in direct use for extended periods of time.

8. Contractors shall discontinue construction activities during second-stage smog alerts.

9. Off-road diesel-powered equipment used on-site for an aggregate of 40 or more hours during any portion of the construction activities shall meet Tier 4 standards.

15162 and 15163 have not occurred. Changes to the mitigation measures included in the Certified EIR and addenda are permitted.

Operational Phase Mitigation

1. To reduce the traffic-related air quality impact on the affected intersections, the Proposed Project shall implement the required traffic management measures described in ~~Section IV.C.6 of the EIR (Traffic, Parking, and Access)~~ the Traffic Study.

2. The Proposed Project applicant shall comply with all requirements of the South Coast Air Quality Management District's Regulation 15, which attempts to reduce employee vehicle trips through the implementation of various transportation management strategies.

(2) Greenhouse Gas Emissions

Since the certification of the Certified EIR, numerous regulatory changes have occurred that are pertinent to the study of greenhouse gas (GHG) impacts under CEQA. In the context of these changes, the following analysis is provided.

(a) Significance Thresholds for the Modified Project

Subsequent to certification of the Certified EIR, the CEQA Guidelines were amended to add Section 15064.4, which is intended to assist lead agencies in determining the significance of the impacts of GHGs. This section recommends that lead agencies quantify GHG emissions of projects. In addition to quantification, this section recommends consideration of several other factors that may be used in the determination of significance (i.e., the extent to which the project may increase or reduce GHG emissions; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs). The amendments do not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions. A lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impact analysis.[3] (see CEQA Guidelines Section 15130(f)).

[3] *See generally, Section 15130(f); see also Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.*

Although GHG emissions can be quantified, CARB, SCAQMD and the City of Los Angeles, have yet to adopt project-level significance thresholds for GHG emissions that would be applicable to the Modified Project.[4]

The CEQA Guidelines were also amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact less than significant. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.[5] To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.[6] Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."[7] Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with adopted programs and/or other regulatory schemes to reduce GHG emissions.[8]

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[4] *The South Coast Air Quality Management District has formed a GHG Significance Threshold Working Group. More information on this Working Group is available at www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2, accessed December 20, 2016. While the Working Group proposed a draft GHG threshold, the SCAQMD never adopted it.*

[5] *14 CCR § 15064(h)(3).*

[6] *14 CCR § 15064(h)(3).*

[7] *14 CCR § 15064(h)(3).*

[8] *See, for example, San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance tor Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR—2030 (June 25, 2014), in which the SJVAPCD "determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…" Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it has produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO2e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project, SCH No. 2012041014 (October 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/ultramar_neg_dec.pdf?sfvrsn=2); SCAQMD, Final Negative Declaration tor Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf?sfvrsn=2); Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014) (www.aqmd.gov/docs/default-source/*

(Footnote continued on next page)

In the absence of any adopted numeric threshold, the significance of the Modified Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Modified Project complies with applicable regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. For this Project, as a land use development project, the most directly applicable adopted plan to reduce GHG emissions is the Southern California Associations of Governments' (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS), which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals. The 2016–2040 RTP/SCS is considered a "vision" plan, and even though it is not mandatory, by meeting or exceeding its standards, the Modified Project would not result in a significant environmental impact. This analysis also considers consistency with regulations or requirements adopted by the Assembly Bill (AB) 32 Climate Change Scoping Plan, and the City of Los Angeles Green Building Ordinance.

(b) Modified Project Impacts

(i) Project Emissions

As noted above, the AB 32 Climate Change Scoping Plan, SCAG's Sustainable Communities Strategy, and the City of Los Angeles Green Building Ordinance are all applicable to the Modified Project. These plans and policies are intended to reduce GHG emissions in order to meet the targets of AB 32. In order to demonstrate the efficacy of these measures required under these applicable GHG reduction plans and policies, and thereby demonstrating consistency with AB 32, this analysis compares the Modified Project's GHG emissions to the emissions that would be generated by the Modified Project in the absence of any GHG emission reduction measures. This methodology is used to analyze consistency with the applicable GHG reduction plans and policies and demonstrate the efficacy of the measures contained therein, but it is not a threshold of significance.

Similar to the Second Addendum, the Modified Project would not increase number of events at the Coliseum, and would not change the seating capacity or anticipated attendance levels from the Approved Project. While the LMNA would generate an increase in trips, the Modified Project would take advantage of current transit services now available

ceqa/documents/permit-projects/2014/exide-mnd_final.pdf?sfvrsn=2); and Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No. 2014121014 (April 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2015/deir-breitburn-chapters-1-3.pdf?sfvrsn=2).

at the Site (i.e., the Exposition Line Light Rail transit line was planned, but not yet operational, at the time the Certified EIR was prepared).

GHG emissions associated with the Modified Project were calculated using CalEEMod, the model recommended by the SCAQMD for calculating emissions from land use projects. Model results are provided in Appendix B of this Addendum.

As summarized and shown in Table 3 on page 32, the Modified Project would result in a total of approximately 4,406 metric tons of carbon dioxide equivalent ($MTCO_2e$), representing an approximate 54-percent reduction associated with implementation of Project Features. This demonstrates the efficacy of the GHG reduction programs and measures applicable to the Modified Project. This decrease is due to the increase in use of transit services available at the Site (e.g., Exposition Line Light Rail transit line), as well as compliance with CalGreen 2016, and LEED Gold equivalency.

(ii) Consistency with Applicable Plans and Policies for Reducing GHG Emissions

As described above, compliance with a GHG emissions reduction plan renders a less-than-significant impact. The following section describes the extent the Modified Project complies with or exceeds the performance-based standards included in the regulations outlined in the *Climate Change Scoping Plan*, the Regional Transportation Plan/Sustainable Communities Strategy, and the Los Angeles Green Building Ordinance. As shown herein, the Modified Project would be consistent with the applicable GHG reduction plans and policies.

AB 32 Climate Change Scoping Plan

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the Legislature as the 2006 Global Warming Solutions Act (Assembly Bill 32). In 2008, CARB approved a Climate Change Scoping Plan as required by AB 32.[9] The Climate Change Scoping Plan proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[10] The Climate Change Scoping Plan h[as a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such

[9] *Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.*

[10] *Climate Change Scoping Plan, CARB, December 2008.*

Table 3
Event Day GHG Emissions Summary
(metric tons of carbon dioxide equivalent)

Scope	Modified Project Prior to Implementation of Project Features	Modified Project with Implementation of Project Features[a]	Modified Project's Percent Reduction with Implementation of Project Features
Area	<1	<1	0%
Energy	2,886	2,296	-20%
Mobile	6,437	1,619	-75%
Waste	69	69	-0%
Water	122	97	-20%
Construction	324	324	0%
Total	**9,514**	**4,406**	**-54%**

Source: Eyestone Environmental, 2017. Calculation worksheets are included in Appendix B of this Addendum.

as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The following discussion demonstrates how the pertinent reduction actions relate to and reduce project-related GHG emissions.

As shown in Table 3, the Modified Project would result in 4,406 $MTCO_2e$ annually. The breakdown of emissions by source category shows approximately less than 1 percent from area sources; 52 percent from energy consumption; 37 percent from mobile sources; 2 percent from solid waste generation; 2 percent from water supply, treatment, and distribution; and 7 percent from construction activities. Provided in Table 4 on page 33 is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Modified Project's design features comply with or exceed the reduction actions/strategies outlined in the *Climate Change Scoping Plan*.

SCAG's Sustainable Communities Strategy

As described in Table 4, SB 375 requires the Metropolitan Planning Organizations to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. The 2016–2040 RTP/SCS is the region's transportation and sustainability investment strategy for protecting and enhancing the region's quality of life and economic prosperity through this period. The 2016–2040 RTP/SCS implementation is expected to result in regional benefits to mobility, economy, health and sustainability. The 2016–2040 RTP/SCS is also expected to help California reach its GHG reduction goals, with reductions in per

Table 4
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
Area (Less than 1 percent of Modified Project inventory)		
SCAQMD Rule 445 (Wood Burning Devices): Requires use of natural gas to power all cooking stoves and fireplaces.	SCAQMD	**Consistent.** The Modified Project would not include wood burning devices.
Energy (52 percent of Modified Project inventory)		
California Renewables Portfolio Standard (RPS) program: Senate Bill 2X modified California's RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. California Senate Bill 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of their energy supply from certified renewable resources by 2016.	Los Angeles Department of Water and Power (LADWP)	**Consistent.** LADWP's commitment to achieve 35 percent renewables by 2020 would exceed the requirement under the RPS program of 33 percent renewables by 2020. In 2016, LADWP indicated that 21 percent of its electricity came from renewable resources in Year 2015.[a] As LADWP would provide electricity service to the site, the Modified Project would use electricity that is produced consistent with this performance based standard. Electricity GHG emissions provided in Table 3 on page 32 assume that LADWP will receive at least 33 percent of their electricity from renewable sources by the year 2020. In addition, the Modified Project would include a minimum of 15 percent of roof area to have photovoltaic panels installed.
Senate Bill 350 (SB 350): The Clean Energy and Pollution Reduction Act of 2015 increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030 and also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[b]	State Energy Resources Conservation and Development Commission and LADWP	**Consistent.** LADWP would be required to generate electricity that would increase renewable energy resources to 50 percent by 2030. As LADWP would provide electricity service to the site, the Modified Project by 2030 would use electricity consistent with the requirements of SB 350. Project buildout would occur in Year 2021 and, therefore, the estimated GHG emissions from electricity usage provided above conservatively do not include implementation of SB 350 with a compliance date of 2030. Electricity GHG emissions presented in Table 3 on page 32 would be further reduced by 17 percent by Year 2030 as the electricity provided to the site would meet the requirements under SB 350. As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under the

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
		CCR, Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, heating ventilation and air-conditioning (HVAC) systems and insulation. The Modified Project would support this action/strategy because it includes compliance with specific requirements of the Los Angeles Green Code (consistency with this regulation is discussed below). In addition, the Modified Project would include a minimum of 15 percent of roof area to have photovoltaic panels installed.
Senate Bill 1368 (SB 1368): GHG Emissions Standard for Baseload Generation prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant.	State, CEC, and LADWP	**Not Applicable.** LADWP would meet the requirements of SB 1368. As LADWP would provide electricity service to the site, the Modified Project would use electricity that meets the requirements under SB 1368.
California Code of Regulations (CCR), Title 20: The 2012 Appliance Efficiency Regulations, adopted by the California Energy Commission (CEC), include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California.	State and CEC	**Consistent.** The Appliance Efficiency Regulations apply to new appliances and lighting that are sold or offered for sale in California. The Modified Project would include new appliances and lighting that comply with this energy efficiency standard.
CCR, Title 24, Building Standards Code: The 2013 Building Energy Efficiency Standards contained in Title 24, Part 6 (also known as the California Energy Code), requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Green Building Standards Code (Part 11, Title 24) established mandatory and voluntary standards on planning and design for sustainable site development,	State and CEC	**Consistent.** Consistent with regulatory requirements, the Modified Project shall comply with applicable provisions of the 2016 Los Angeles Green Code that in turn requires compliance with mandatory standards included in the California Green Building Standards. The 2016 Title 24 standards are 5 percent better for nonresidential construction in comparison to the 2013 standards.[c] The 2016 Title 24 standards are more efficient than the 2020 Projected Emissions under Business-as-Usual in the *Climate Action Scoping Plan*. The standards required builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Thus, the Modified Project

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
energy efficiency (extensive update of the California Energy Code), water conservation, material conservation, and internal air contaminants.		has incorporated energy efficiency standards that are more effective than the measures identified in the *Climate Action Scoping Plan* to reduce GHG emissions.
Energy Independence and Security Act of 2007 (EISA): EISA requires manufacturing for sale within the Untitled States to phase out incandescent light bulbs between 2012 and 2014 resulting in approximately 25 percent greater efficiency for light bulbs and requires approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020.	Federal/ Manufacturers	**Consistent.** EISA would serve to reduce the use of incandescent light bulbs for the Modified Project and, thus, reduce energy usage associated with lighting. Electricity GHG emissions provided in Table 3 on page 32 conservatively account for a 25-percent reduction in lighting electricity consumption with implementation of this regulation.
Assembly Bill 1109 (AB 1109): The Lighting Efficiency and Toxic Reduction Act prohibits a person from manufacturing for sale in the state requires the establishment of minimum energy efficiency standards for all general purpose lights. The standards are structured to reduce average statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018.[d]	State/ Manufacturers	**Consistent.** As with the EISA, discussed above, the Modified Project would meet the requirements under AB 1109 because it incorporates energy efficient lighting and electricity consumption that complies with local and state green building programs.
Cap-and-Trade Program: The program establishes an overall limit on GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, and cement production). Facilities subject to the cap are able to trade permits to emit GHGs within the overall limit.		**Consistent.** As required by AB 32 and the Climate Change Scoping Plan, the Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. Therefore, GHG emissions associated with the Modified Project's electricity usage per year presented in Table 3 on page 32 would be covered by the Cap-and-Trade Program and would be consistent with AB and the Climate Change Scoping Plan.

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
Mobile (37 percent of Modified Project inventory)		
Assembly Bill 1493 (AB 1493) "Pavley Standards": AB 1493 requires the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. In compliance with AB 1493, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles and light duty trucks of model year 2009 through 2016. Model years 2017 through 2025 are addressed by California's Advanced Clean Cars program (discussed below).	State, CARB	**Consistent.** The Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and are expected to reduce GHG emissions by about 30 percent in 2016, all while improving fuel efficiency. GHG emissions related to vehicular travel by the Modified Project would benefit from this regulation because vehicle trips associated with the Modified Project would be affected by AB 1493. Mobile source emissions generated by the Modified Project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions provided in Table 3 on page 32 were calculated using CalEEMod which includes implementation of AB 1493 into mobile source emission factors.
Executive Order S-01-07: The Low Carbon Fuel Standard (LCFS) requires a 10-percent or greater reduction by 2020 in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the LCFS as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23, 2009 (CARB 2009).[e,f]	State, CARB	**Consistent.** GHG emissions related to vehicular travel by the Modified Project would benefit from this regulation because fuel used by Modified Project-related vehicles would be compliant with LCFS. Mobile source GHG emissions provided in Table 3 on page 32 were calculated using CalEEMod, which includes implementation of the LCFS into mobile source emission factors.
Advanced Clean Cars Program: In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.	State, CARB	**Not applicable.** Although this is not applicable to the Modified Project since it is a statewide program, standards under the Advanced Clean Cars Program will apply to all passenger and light duty trucks used by visitors, employees, and deliveries to the Modified Project. GHG emissions related to vehicular travel by the Modified Project would benefit from this regulation and mobile source emissions generated by the Modified Project would be reduced with implementation of standards under the Advanced Clean Cars Program consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions provided in Table 3 on page 32, conservatively do not include this additional 34-percent reduction in

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
		mobile source emissions as the CalEEMod model does not yet account for this regulation. The Modified Project would further support this regulation since the project applicant will provide at least 20 percent of the total code-required parking spaces for the LMNA to be capable of supporting future electric vehicle supply equipment (EVSE) and will provide at least 5 percent of the total code-required parking spaces with EV charging stations.
Senate Bill (SB) 375: SB 375 requires integration of planning processes for transportation, land-use and housing. Under SB 375, each Metropolitan Planning Organization would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled and trips so that the region will meet a target, created by CARB, for reducing GHG emissions.	State, CARB Regional, SCAG	**Consistent.** SB 375 requires SCAG to direct the development of the SCS for the region, which is discussed further below. The Modified Project represents an infill development within an existing urbanized area that would concentrate new institutional uses within a HQTA. Therefore, the Modified Project would be consistent with SCAG's 2016–2040 RTP/SCS as it is located within a HQTA. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 18-percent decrease in per capita GHG emissions by 2035 and 21-percent decrease in per capita GHG emissions by 2040. As project-related transportation emissions are reduced by approximately 75 percent (see Table 3 on page 32), therefore the Modified Project would be consistent with SB 375 and the 2016–2040 RTP/SCS.
Solid Waste (Two percent of Modified Project inventory)		
California Integrated Waste Management Act of 1989 and Assembly Bill 341: The California Integrated Waste Management Act of 1989 requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; and (2) diversion of 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting facilities.[9]	State	**Consistent.** GHG emissions related to solid waste generation from the Modified Project would benefit from this regulation as it would decrease the overall amount of solid waste disposed of at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. Modified Project-related GHG emissions from solid waste generation provided in Table 3 on page 32 includes a 50-percent reduction in solid waste generation source emissions per goals of the City of Los Angeles. The project applicant shall only contract for waste disposal services with a company that recycles solid waste in compliance with AB 341. In addition, the Modified Project would provide recycling

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.[h]		bins at appropriate locations to promote recycling of paper, metal, glass and other recyclable material.
Water (Two percent of Modified Project inventory)		
CCR, Title 24, Building Standards Code: The California Green Building Standards Code (Part 11, Title 24) includes water efficiency requirements for new residential and non-residential uses, in which buildings shall demonstrate a 20-percent overall water use reduction.	State	**Consistent.** The Modified Project shall comply with applicable provisions of the 2016 Los Angeles Green Code, which in turn requires compliance with mandatory standards included in the California Green Building Standards (20-percent overall water use reduction).
Senate Bill X7-7: The Water Conservation Act of 2009 sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This in an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	State	**Consistent.** As discussed above under Title 24, the Modified Project would meet this performance based standard.
Construction (Seven percent of Modified Project inventory)		
CARB In-Use Off-Road Regulation: CARB's in-use off-road diesel vehicle regulation ("Off-Road Diesel Fleet Regulation") requires the owners of off-road diesel equipment fleets to meet fleet average emissions standards pursuant to an established compliance schedule.	CARB	**Consistent.** The project applicant would use construction contractors that would comply with this regulation, and all off-road diesel-powered equipment used on-site for an aggregate of 40 or more hours during any portion of the construction activities will meet Tier 4 standards
CARB In-Use On-Road Regulation: CARB's in-use on-road heavy-duty vehicle regulation ("Truck and Bus	CARB	**Consistent.** The project applicant would use construction contractors that would comply with this regulation.

Table 4 (Continued)
Consistency Analysis—Climate Change Scoping Plan

Actions and Strategies	Responsible Party(ies)	Modified Project Consistency Analysis
Regulation") applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.		

[a] *California Energy Commission, Utility Annual Power Content Labels for 2015, www.energy.ca.gov/pcl/labels/.*
[b] *Senate Bill 350 (2015–2016 Reg, Session) Stats 2015, Ch. 547.*
[c] *CEC, Adoption Hearing, 2016 Building Energy Efficiency Standards.*
[d] *2007b. Assembly Bill 1109 (2007–2008 Reg. Session) Stats. 2007, Ch. 534.*
[e] *CARB, Initial Statement of Reason for Proposed Regulation for The Management of High Global Warming Potential Refrigerant for Stationary Sources, October 23, 2009.*
[f] *Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the "lifecycle" of a transportation fuel.*
[g] *Cal. Pub. Res. Code § 41780(a).*
[h] *Cal. Pub. Res. Code § 41780.01(a).*
Source: Eyestone Environmental, 2017.

capita transportation emissions of 9 percent by 2020 and 16 percent by 2035.[11] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[12] The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions by 2035, and 21-percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

The 2016–2040 RTP/SCS establishes High-Quality Transit Areas, which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[13] Local jurisdictions are encouraged to focus housing and employment growth within High-Quality Transit Areas.[14] Specifically, the Site is located within a High-Quality Transit Area as designated by the 2016–2040 RTP/SCS.[15] The Site location provides convenient pedestrian access to several stops on the Exposition Line Light Rail Line, including the Expo Park/USC Station (0.2 mile from the Site) and the Expo/Vermont Station (0.09 mile from the Site), as well as the 37th Street/USC Silver Line Bus Rapid Transit (BRT) Station on the Harbor Transitway (located approximately 0.5 mile from the Site). The Site is also served by seven bus lines operated by Metro and the Los Angeles Department of Transportation (LADOT) within 0.25 mile of the Site. By focusing new development within a designated High-Quality Transit Area, the Modified Project would be consistent with regional growth strategies promoted in the 2016–2040 RTP/SCS, which represent widely recognized "smart growth" planning strategies that promote higher density, infill development with access to public transit in an effort to reduce urban sprawl and its associated environmental effects. As shown in Table 3 on page 32, the Modified

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[11] *CARB, Regional Greenhouse Gas Emission Reduction Targets Pursuant to SB 375, Resolution 10-31.*

[12] *SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.*

[13] *SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 114.*

[14] *In accordance with SB 743, the City of Los Angeles promotes housing and employment growth through Zoning Initiative 2542, which defines Transit Priority Areas and provides that aesthetic and parking impacts for certain project types on infill sites in such Transit Priority Areas will not be determined to be significant.*

[15] *SCAG, Final 2016–2040, RTP/SCS, April 2016, Exhibit 4.9: High-Quality Transit Areas (HQTA) SCAG Region, p. 136.*

Project results in a VMT and GHG reduction from mobile sources of approximately 75 percent in comparison to a standard project as estimated by CalEEMod, and would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS. This reduction is attributable to the Modified Project characteristics as being an infill project near transit that supports multi-modal transportation options. Overall, the Modified Project would be consistent with the 2016–2040 RTP/SCS, which is a relevant regional plan adopted for the purpose of reducing GHG emissions.

Los Angeles Green Building Ordinance

Consistent with regulatory requirements, the Modified Project shall comply with applicable provisions of the 2016 Los Angeles Green Code that in turn requires compliance with mandatory standards included in the California Green Building Standards. The 2016 Title 24 standards are 5 percent better for nonresidential construction in comparison to the 2013 standards.[16] The 2016 Title 24 standards are more efficient than the 2020 Projected Emissions under Business-as-Usual in the *Climate Action Scoping Plan*. The standards require builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Thus, the Modified Project has incorporated energy efficiency standards that comply with the Los Angeles Green Building Ordinance.

(iii) Conclusion

Given the Modified Project's consistency with State, regional, and local GHG emission reduction goals and objectives, the Modified Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, as was the case with the Approved Project. Furthermore, the Modified Project would comply with plans, programs, and regulations that reduce GHG emissions. Therefore, impacts with respect to GHG emissions under the Modified Project would be less than significant and not cumulatively considerable. No mitigation measures are required.

Based on the analysis above, the Modified Project would not result in any new significant impacts with respect to GHG emissions, and it would not substantially increase the severity of any significant impacts previously identified in the Certified EIR and addenda.

[16] *CEC, Adoption Hearing, 2016 Building Energy Efficiency Standards.*

C. Cultural Resources

(1) Historical Resources

As discussed in the Certified EIR and addenda, there are numerous historical resources within the vicinity, including the Los Angeles Memorial Coliseum, the Natural History Museum, and the Exposition Park Historic District. The Project as initially proposed in the Certified EIR included the removal of some of the existing Coliseum seating. Removal of the seating was determined to be a significant impact. However, as discussed in detail in the Second and Third Addenda, the design of the Project was subsequently modified to include a single new seating tower substantially smaller than the two towers originally proposed. In addition, the design was modified to retain the existing shape of the playing field and retain the two existing tunnels and stairs that were previously proposed to be closed off. Overall, most of the alterations of the Coliseum under the Approved Project would preserve and enhance the historic character-defining features of the Coliseum. Therefore, as set forth in the Second and Third Addenda, under the Approved Project, the Los Angeles Memorial Coliseum would retain sufficient physical integrity to convey its historic significance and retain its eligibility for listing as a National Historic Landmark. In addition, no other historic resources in the vicinity would be impacted directly or indirectly. Thus, potential impacts to historic resources would be less than significant under the Approved Project.

A detailed analysis of the Modified Project's potential impacts associated with historic resources was completed as part of the *Lucas Museum of Narrative Art Historical Resources Technical Report* (Historic Report), prepared by Architectural Resources Group (March 2017) and included as Appendix C of this document. A summary of the findings of the Historic Report is provided below.

(a) Background and Existing Conditions

The Modified Project site was historically developed with single-family dwellings, horse barns, multi-family residences, and commercial/industrial buildings. However, all of the buildings and structures once present at this location have been removed, and the site has served as surface parking for Exposition Park since the early 1950s. The most recent modifications within the site include the introduction of Jesse Brewer Jr. Park in 1998 and the introduction of a soccer field (Soboroff Field) in 2009. The Modified Project Site also includes numerous trees. However, none of the trees are historic or part of a historic district.

The Modified Project Site has never been formally part of Exposition Park, which historically had a western boundary of Menlo Avenue, today known as Bill Robertson Lane. Given the absence of historic buildings and structures and the lack of historical association

with Exposition Park, the Modified Project Site is not eligible for listing in the National Register, the California Register, or as a Los Angeles Historic-Cultural Monument.

Historic resources adjacent to the proposed LMNA include the Coliseum to the east across Bill Robertson Lane, and the Natural History Museum to the northeast, also across Bill Robertson Lane. The Coliseum is designated as a National Historic Landmark, as State Historical Landmark #960, and was listed in the National Register of Historic Places in 1984. In addition, the Natural History Museum is listed in the National Register. The LMNA is also adjacent to the Exposition Park Historic District, which is roughly bounded by Exposition Boulevard, Figueroa Street, Bill Robertson Lane, and Martin Luther King Jr. Boulevard. Other nearby historical resources in the Project vicinity include: North and South Coliseum Drives with Christmas Tree Lane (determined eligible for the National Register); the Exposition Park Rose Garden (listed in the National Register); the Exposition Clubhouse (determined eligible for the National Register and designated City of Los Angeles Historic-Cultural Monument No. 127); the Los Angeles Swimming Stadium (now the LA84 Foundation/John C. Argue Swim Stadium; determined eligible for the National Register and listed in the California Register); and the California Aerospace Museum (now the Air and Space Gallery; listed in the California Register).

(b) Modified Project Impacts

As discussed above, there are no historical resources within the area proposed for development of the LMNA and associated improvements. As such, the Historic Report concluded that the Modified Project would not directly impact any historical resources.

The Historic Report also provides a detailed analysis of the potential for the Modified Project to result in construction that reduces the integrity or significance of the important resources in the vicinity. A summary of the analysis is provided below:

- Los Angeles Memorial Coliseum—The southernmost portion of the LMNA building, which would be approximately 115 feet tall at its highest point, would be approximately 250 feet from the northwest corner of the Coliseum. The main entrance to the Coliseum faces Figueroa Street, and the approach to the building from the east is its primary view. The Coliseum's elaborate peristyle entrance continues to be its iconic public façade, and the allée formed by the trees along North and South Coliseum Drives (now Exposition Park Lane) and Christmas Tree Lane accentuate this view from the east. The Coliseum is also visible from Martin Luther King Jr. Blvd., to the south, and from Bill Robertson Lane, to the west, although these views are secondary to the view from Figueroa Street. The Coliseum is approximately 500 feet from Vermont Avenue at its closest point, and although it is intermittently visible from Vermont Avenue, the view is largely obscured by vegetation and fencing from most angles.

As the Modified Project Site originally contained single- and multi-family residential buildings (most of which were razed in the early 1950s to make way for surface parking), the Coliseum would not have been visible from Vermont Avenue during its historical period. Therefore, the view from the west was never a significant view of the Coliseum. Furthermore, the Coliseum has never had any significant association with the proposed site of the LMNA. Historically, the Coliseum was situated at the far western edge of Exposition Park, which culminated at Menlo Avenue (now Bill Robertson Lane), and the LMNA site remained residential in character until the 1950s. Thus, the land to the west of the Coliseum, including the site of the proposed LMNA, has never had any association with the Coliseum aside from providing surface parking for visitors in the present day. In addition, construction of the LMNA and associated improvements would not change the setting of the Coliseum in such a way that its overall integrity will be diminished. Although the Modified Project would introduce a large new building to the west of the Coliseum, the site elements with which the Coliseum has direct, historical association are to the east of the building, and these would remain unchanged. Therefore, the Modified Project would not have the potential to reduce the integrity or significance of the Coliseum.

- Natural History Museum—The Natural History Museum is located to the east of the proposed LMNA, across Bill Robertson Lane. The northern portion of the LMNA building, which would be approximately 115 feet tall at its highest point, would be approximately 250 feet from the southwest corner of the Natural History Museum. The National Register designation for the Natural History Museum focuses on the 1913 portion of the building, which has been expanded significantly with additions constructed in 1925, 1930, 1960, and 1974. The building has not been reevaluated for individual eligibility against local, state, or national criteria since the time of its designation. The portion of the building nearest to the proposed LMNA was constructed in 1960 and altered in 1974. The 1913 building is separated from the LMNA by these substantial additions. Even if the building as a whole were significant, including all of its additions dating to the 1970s, its significance and integrity would still not be reduced by the proposed LMNA. The Natural History Museum building has a long, axial footprint running east-west. The primary entrance is currently located on the south side of the building, facing an expansive lawn. Significant views of the building include the view north toward the main entrance from the south lawn, the view west toward the 1913 rotunda building from the Rose Garden, and the view south of the building from Exposition Boulevard. The portion of the building that faces west, toward the LMNA, is utilitarian in function and contains no fenestration or architectural features. There is no significant view of the Natural History Museum that would be blocked by the proposed LMNA; currently, the building is barely visible from Vermont Avenue.

  Furthermore, the Natural History Museum has never had any significant association with LMNA. Historically, the Natural History Museum was situated at

the far western edge of Exposition Park, which culminated at Menlo Avenue (today's Bill Robertson Lane), and the LMNA site remained residential in character until the 1950s. Any notable landscape features to the west of the 1913 Natural History Museum were removed with the construction of its additions in the 1920s, '30s, '60s and '70s. Construction of the LMNA would not change the setting of the Natural History Museum in such a way that its overall integrity is diminished; its integrity of setting has already been compromised. Therefore, the proposed LMNA does not have the potential to reduce the integrity or significance of the Natural History Museum.

- Exposition Park Historic District—The LMNA site has no historical association with the Exposition Park Historic District. The proposed LMNA would not reduce the integrity of any of the historic district's component parts, nor would it change any of the spatial relationships between them. The LMNA building would be located directly west of the historic district. At its highest point, the new building would be approximately 115 feet tall. The district's contributing buildings do not represent a single unified architectural style; rather, they exhibit a wide range of styles including Beaux Arts, Moderne, and Spanish Colonial Revival. There are several non-contributing buildings within the historic district boundary that are contemporary in style, including Frank Gehry's California Aerospace Museum (1982-1984). Therefore, Exposition Park is already a campus of both historic and contemporary institutional architecture without a common visual theme. The addition of a contemporary building outside of the district would not have an impact on the district in terms of the compatibility of and relationships between its component parts.

  With the exception of the Coliseum, which includes an exterior wall that measures approximately 75 feet height (from ground level) and a press box that measures approximately 101 feet in height, most of the contributing buildings in the historic district are two stories tall. The new LMNA building would exceed all of these buildings in height. However, as stated above, significant views of the historic district or its contributors would not be blocked by the LMNA building. Furthermore, the visual character of the proposed LMNA site has changed significantly since the period of significance of the adjacent historic district (identified as 1910-1932). Although the Modified Project introduce a new building adjacent to the Exposition Park Historic District, because the setting at this location has already changed and because there is no significant impact on the contributors to the historic district, there would be no further reduction in integrity or significance of the historic district.

- Los Angeles Swimming Stadium and Exposition Clubhouse—The northwestern edge of the Swimming Stadium would be approximately 900 feet from the southernmost edge of the LMNA. A new subterranean parking structure would be constructed directly to the west of the Swimming Stadium and northwest of the Clubhouse, across Bill Robertson Lane. The Los Angeles Swimming Stadium and Exposition Clubhouse are visible from Bill Robertson Lane and

Martin Luther King Jr. Blvd. The LMNA building is far enough from these two buildings such that it would not obstruct their view from any angle. Therefore, the proposed LMNA building does not have the potential to reduce the integrity or significance of the Los Angeles Swimming Stadium or Exposition Clubhouse.

- Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, and California Aerospace Museum—The Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, and California Aerospace Museum are all located in the eastern portion of Exposition Park. The closest of these to the LMNA improvements is the Rose Garden, which is approximately 930 feet from the northeastern-most edge of the LMNA. In all cases, there are large buildings and structures between these important resources and the LMNA improvements. Furthermore, there is no historical association between any of these buildings and the Modified Project site. Therefore, the Modified Project does not have the potential to reduce the integrity or significance of the Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, or California Aerospace Museum.

Based on the above, the Modified Project would not result in significant impacts to the Coliseum or any other historic resources located within the vicinity. Thus, potential impacts to historic resources would be less than significant under the Modified Project and within the envelope of impacts set forth in the Certified EIR and addenda.

(2) Archaeological and Paleontological Resources

Potential impacts to archaeological and paleontological resources were not assessed in detail in the Certified EIR. However, as set forth in the Addenda, potential impacts associated with paleontological resources would be less than significant with implementation of mitigation measures, and potential impacts associated with archaeological resources would be less than significant.

Significant impacts to archaeological resources could occur if a project were to cause a substantial adverse change in the significance of an archaeological resource. Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that “has yielded, or may be likely to yield, information important in prehistory or history.” Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community. Significant impacts to paleontological resources could occur if a project were to directly or indirectly destroy a unique paleontological resource. Paleontological resources are the fossilized remains of organisms that have lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil

record represents the primary source of information on ancient life forms, since the majority of prehistoric species are extinct.

The Project Site is located within an urbanized area of the City of Los Angeles and has been subject to disturbance and excavation in the past. Any archaeological and/or paleontological resources that may have existed near the surface of the Project Site are likely to have been disturbed and/or previously removed. However, excavation activities would be necessary under the Modified Project. As such, while unlikely, the potential exists for previously undiscovered archeological and/or paleontological resources to be encountered during construction of the Modified Project.

As is the case with the Approved Project, if an archaeological resource is discovered during Modified Project construction activities, work in the area would cease and deposits would be treated in accordance with applicable federal, State, and local guidelines, including those set forth in California Public Resources Code (PRC) Section 21083.2. Any discovery of human remains would be treated in accordance with Section 5097.98 of the PRC and Section 7050.5 of the Health and Safety Code. Therefore, through compliance with existing regulations, impacts with respect to archaeological resources would be less than significant under the Modified Project.

If a paleontological resource is discovered during construction of the Modified Project, Mitigation Measure 4, below, would be implemented to reflect best management practices to ensure that potential impacts would be less than significant.

Based on the above, the Modified Project would not result in any significant impacts with respect to archaeological and paleontological resources.

(3) Mitigation Measures

Mitigation Measures 1 through 4 below were included in the Certified EIR and addenda to reduce the Approved Project's impacts related to historic and paleontological resources. Mitigation Measures 1 through 3 will be implemented as part of the improvements to the Coliseum and are not applicable to the Modified Project. Mitigation Measure 4 would continue to be implemented during construction of the Modified Project.

1. Recordation. Demolition of any historic fabric shall be documented in a report consistent with Historic American Buildings Survey (HABS) standards. The report shall document the significance and physical condition of the historic resources proposed for demolition, both historic and current, photographs, written data, and text. The documentation shall include:

a. A brief written historic and descriptive report shall be completed in narrative format, including an architectural data form.

b. A site plan on 8" x 11" paper showing the location of the buildings should be included. This site plan shall include a photo-key.

c. A sketch floor plan on 8" x 11" paper shall accompany each architectural data form.

d. Large format (4" x 5" or larger negative size) photographs in accordance with HABS guidelines. Views shall include several contextual views, all exterior elevations, detailed views of significant exterior architectural features, and interior views of significant historical architectural features or spaces.

e. Field photographs (35 mm) based on HABS guidelines. Views as detailed in large format photographs.

f. The report shall include copies or prints of any available original plans and historic photographs.

g. Archivally stable reproductions of any available significant historic construction drawings and photographs.

h. Archival copies of the documentation shall be submitted to the Los Angeles Memorial Coliseum Commission. **[Mitigation Measure not applicable to the Modified Project.]**

2. In accordance with Standard 7 of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*, the surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning materials that will damage the historic building materials shall not be undertaken. **[Mitigation Measure not applicable to the Modified Project.]**

3. The Project shall be constructed in substantial conformance with the Conceptual Historic Fabric Retention Plan provided in Appendix C of the Second Addendum. **[Mitigation Measure not applicable to the Modified Project.]**

4. A qualified paleontologist shall be retained to perform periodic inspections of excavation and grading activities of the Project Site where excavations into any older Quaternary Alluvium may occur. The services of a qualified paleontologist shall be secured by contacting the Natural History Museum of Los Angeles County. The frequency of inspections shall be based on consultation with the consulting paleontologist and will depend on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered. Monitoring shall consist of visually inspecting fresh

exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains.

If a potential fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. At the paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected should be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. If fossils are found, following the completion of the above tasks, the paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the applicant to the lead agency, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

D. Geology/Seismic Hazards

The Certified EIR and addenda provided an analysis of impacts related to geology and seismic hazards such as fault rupture, ground shaking, landsliding, and liquefaction based on various geotechnical investigations. The analyses determined that the surface soils within the foundation area of the Approved Project were not expansive, collapsible, or compressible. Thus, impacts associated with geology and soil stability were determined to be less than significant. Due to the depth of the groundwater and relatively high density of the soils underlying the site, the potential for liquefaction was considered remote. In addition, the Project Site is not located near any known mapped active, potentially active or inactive faults and potential impacts from groundshaking would be addressed through compliance with regulatory requirements including Los Angeles Building Code. Overall, the analysis concluded that with compliance with regulatory requirements and proposed mitigation measures impacts associated with geology and seismic hazards would be less than significant.

The following summary of potential impacts under the Modified Project is based, in part, on the *Preliminary Geotechnical Assessment*, *Proposed Lucas Museum of Narrative Art*, dated October 27, 2016, the *Supplemental Liquefaction Hazard Information,* dated October 31, 2017, and the *Update of Preliminary Geotechnical Assessment, Proposed Lucas Museum of Narrative Art*, dated February 10, 2017. These reports, which

collectively are referred to hereafter as the Geotechnical Reports, have all been prepared by Geotechnologies, Inc. and are included in Appendix D of this Addendum.

The Modified Project would result in development within the same general vicinity as that of the Approved Project. Thus, due to the relatively flat nature of the site, no unique geologic formations would be modified and landsliding associated with significant slopes would not occur. The soils underlying the site generally consist of alluvial soils. Alluvial soils are typically medium dense to very dense, or stiff, and well consolidated, with expansion characteristics that range from very low to moderate. It is anticipated that some amount of existing fill materials overlies the native alluvium, and such fill materials are expected to be completely removed during excavation, exposing dense alluvial soils at the subgrade.

As was the case with the Approved Project, while there are known active or potentially active faults that underlie the site, the site is not located within an Alquist-Priolo Fault Zone. Thus, the potential for surface ground rupture is considered low. Groundwater was not encountered during exploration conducted to a maximum depth of 70 feet below ground surface. In addition, according to the Geotechnical Reports, the historic-high groundwater level for the site was 40 feet below ground surface. Therefore, as with the Approved Project, the liquefaction analysis for the Modified Project determined that the potential for liquefaction at the site is considered low. Similarly, the potential for subsidence on the site would continue to be low due to the depth of the groundwater table and since there are no withdrawals of oil resources or groundwater occurring on or in the vicinity of the site, as noted in the Certified EIR. Based on the Geotechnical Reports, it is anticipated that the soils underlying the site consist of alluvial soils that are comprised of a mixture of sands and silty sands with varying amounts of gravel and cobbles that are typically medium dense to very dense, or stiff. These soils have very low to moderate expansion characteristics. The existing fill materials would be removed to construct the subterranean parking structures, which would expose dense native alluvial soils. Thus, impacts resulting from soil stability and soil expansion would be less than significant. The Geotechnical Reports also concluded that the potential for dynamic settlement at the site continues to be negligible. With regard to seismic hazards, overall, the Geotechnical Reports concluded that compliance with current regulatory requirements would reduce potential impacts associated with ground shaking and associated seismic hazards to less than significant levels. The Modified Project would also continue to implement the mitigation measures regarding geology and seismic hazards that are set forth in the Certified EIR and included below. Thus, as with the Approved Project, with implementation of regulatory requirements and mitigation measures, impacts associated with geology and seismic hazards would be less than significant under the Modified Project.

(1) Mitigation Measures

Mitigation Measures 1 through 13, below, were included in the Certified EIR and addenda to reduce Approved Project impacts related to geology and seismic hazards. With the exception of Mitigation Measure 6, which is not applicable to the Modified Project, these mitigation measures would continue to be implemented under the Modified Project to ensure that potential impacts to geology and seismic hazards would be less than significant.

1. All structures to be constructed or renovated as part of the Proposed Project shall be designed as required by either the Uniform Building Code for structures within Seismic Zone 4, or other pertinent State and/or City building codes (such as Division 23, Section 91.2305 of the City of Los Angeles Building Code), to withstand the expected ground motions.

2. A comprehensive geotechnical investigation shall be prepared to the satisfaction of the responsible State and/or City reviewing agencies. The investigation shall verify the soil conditions under the proposed structures and derive the pile capacities.

3. All grading activities shall be in compliance with specific recommendations and requirements provided in the geotechnical report prepared for the Proposed Project, subject to review and approval by the appropriate State and/or City responsible agencies.

4. A copy of the foundation report and/or supplements and approval letter shall be attached to the State and/or City office and field sets of plans, with one copy of the foundation report and/or supplements submitted to the State and/or City plan checker prior to the issuance of the permit.

5. During construction, all grading shall be carefully observed, mapped, and tested by the project engineer. All grading shall be performed under the supervision of a certified engineering geologist and/or soils engineer in accordance with the applicable provisions of the State and/or City Building Codes to the satisfaction of the State and/or City building and safety authorities. The responsible engineer shall review and approve the foundation plan and/or the excavation/shoring plan prior to the issuance of any permits.

6. Artificial fills in the existing 35-foot earth berm shall not be considered suitable for the support of foundations unless excavated, recompacted, and tested to be

in compliance with the applicable State and/or City Grading Codes. **[Mitigation Measure is not applicable to Modified Project.]**[17]

7. The geologist or the soils engineer shall inspect and approve all fill and subdrain placement areas prior to placing fill.

8. Haul route approval for the transport of graded and excavated earth materials and removed building materials to receptor sites and/or local landfills shall be obtained from the City of Los Angeles Department of Building and Safety and/or other responsible City agencies. Haul routes for the transport of such materials shall be established, where possible, through nonresidential areas so as to minimize the effects of noise, and shall maximize, where possible, the distance traveled on major arterials.

9. Discarded building and/or earth materials containing any hazardous materials, primarily asbestos, shall be disposed of in accordance with all applicable local, state, and federal regulations.

10. To the maximum extent feasible, uncontaminated graded materials shall be transported off-site to a receptor site needing imported fill material. Landfills shall only be considered as a last resort disposal option for materials from the site.

11. Prior to the issuance of building permits, if the soils and/or perched groundwater beneath the site are found to be contaminated, the City of Los Angeles Fire Department shall be notified and provided with a summary of all local, state, county, and federally required remediation activities and submit evidence of compliance.

12. Where encountered on the site, perched groundwater or saturated soils should be removed to the extent feasible or necessary.

13. During the construction plan and haul route approval process, the project contractor shall consult with the LAUSD Transportation Branch to address potential impacts upon existing pedestrian and school bus routes. Contractors must guarantee that safe and convenient pedestrian routes to school are maintained. The project contractor shall install appropriate traffic controls (signs and signals) as needed to ensure pedestrian and vehicular safety. The project contractor shall fund crossing guards for safety of students, as needed, during construction activities at impacted crossings.

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[17] *The earth berm is not located on the Modified Project Site. As such, this mitigation measure is not applicable.*

E. Land Use

(1) Land Use Compatibility

As set forth in the Certified EIR and addenda, the Approved Project would modify various aspects of the Coliseum, but would maintain the site's existing character and use as an outdoor sports and multi-purpose stadium. Thus, the use of the Coliseum under the Approved Project would be compatible with the surrounding environment, including the uses within Exposition Park and impacts associated with land use compatibility would be less than significant.

The Modified Project would not alter the Coliseum's existing use as an outdoor sports and multi-purpose stadium. Rather, the Modified Project would develop a new building with approximately 299,717 square feet of new floor area for museum and ancillary uses, including restaurant, theater, retail, classroom, and event spaces. The types of land uses proposed are consistent and compatible with the Approved Project and with other land uses within and around Exposition Park. Specifically, land uses within Exposition Park include museums, event centers, educational facilities and associated office/administration, conference, and concession spaces. The Modified Project Site has been used for a variety of uses, the most recent of which includes surface parking for uses within Exposition Park, a soccer field, and a community park. As discussed above, the soccer field would be relocated within the site and the park would be improved. In addition, new parking would be provided to serve the LMNA and replacement parking spaces would be provided to serve existing uses. In particular, when accounting for the code parking required for the LMNA and the replacement parking, a net increase of up to 135 permanent parking spaces would be available. Thus, as with the Approved Project, the Modified Project would be compatible with surrounding uses, including uses within Exposition Park, and potential impacts would be less than significant.

(2) Consistency with Land Use Plans and Zoning

As discussed in the Certified EIR and addenda, the continued use of the Coliseum as an outdoor sport and multi-purpose stadium would be consistent with the Open Space land use designation of the site set forth by the City of Los Angeles General Plan. In addition, as set forth in the Certified EIR and addenda, the Approved Project would support the land use objectives of the California Museum of Science and Industry Exposition Park Master Plan (Exposition Park Master Plan), the South Los Angeles Community Plan (Community Plan), the City of Los Angeles General Plan Framework (Framework Element), and the Hoover Redevelopment Plan. In particular, the Approved Project would support policies supporting revitalization of Exposition Park and preserving cultural monuments. In addition, the Approved Project would be consistent with the Coliseum District Specific Plan (Specific Plan) and LAMC. Therefore, as discussed in the Certified EIR and First

Addendum, impacts associated with consistency with relevant land use plans would be less than significant.

The Modified Project is also subject to the Exposition Park Master Plan, the Framework Element, the Community Plan, the LAMC, the Specific Plan, as well as the Southern California Association of Governments' (SCAG) recently adopted 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS); SCAG's Compass Growth Vision, adopted in 2004, and SCAG's 2008 Regional Comprehensive Plan (RCP) and Specific Plan.[18] The Modified Project's consistency with these plans and regulations is addressed below.

The Exposition Park Master Plan was prepared in 1992 to guide land use planning for State-owned property and uses within Exposition Park. The Master Plan includes goals and objectives oriented around developing, preserving, and restoring the following areas within Exposition Park: (1) the California Museum of Science and Industry; (2) the Science Museum School; (3) the Science Educational Resource Center; (4) the California African-American Museum; (5) park landscaping and open space areas; (6) parking and circulation facilities; and (7) ancillary infrastructure improvement areas. As detailed in the Section III, Project Description, the Modified Project would develop a new museum building within Exposition Park. Similar to the Approved Project, the Modified Project would support Objective 1 of the Master Plan to reinforce the dual role of Exposition Park as a regional and community resource by developing a one-of-a-kind gathering place to experience art collections, films, and exhibitions. In addition, the Modified Project would include more enhanced landscape and pedestrian improvements as compared to the Approved Project by creating a park landscape around the new building, developing a variety of public spaces, and installing improvements to the Jesse Brewer Jr. Park and Exposition Park, which would support Objective 2 of the Master Plan to enhance the character and landscape features in Exposition Park by increasing the area available for passive and active recreational uses and Objective 3 to provide pedestrian transit linkages. Development of the new LMNA building would also support Objective 3 of the Master Plan to create new employment, recreational, educational, and cultural opportunities. In addition, the Modified Project would not diminish the historical legacy of Exposition Park.

[18] *Most of the Modified Project is located on a site owned by the Sixth District Agricultural Association (State of California) orl the Coliseum Commission. Accordingly, most of the Modified Project, including the museum and its associated parking, is not subject to the requirements of the Exposition/University Park Redevelopment Plan (formerly Hoover Redevelopment Plan).. However, the City owns the now vacated portion of Leighton Drive running through the Modified Project Site. This portion will be developed with a portion of the Replacement Parking Structure, which will be consistent with the Redevelopment Plan's Public Use designation for this City-owned property. Moreover, that portion of the Modified Project will obtain any necessary approvals or clearances from the CRA successor agency prior to building permit issuance.*

Rather, the addition of the new museum would attract more visitors to the area to appreciate the significance of Exposition Park; thereby supporting Objective 4. Finally, the Modified Project would support Objective 5, to establish consistent and compatible design standards for Exposition Park by relocating the parking spaces removed by the Modified Project within two subterranean parking structures and creating additional landscaping and open spaces on-site. Therefore, consistent with the conclusions in the Certified EIR for the Approved Project, the Modified Project would be consistent with the relevant objectives of the Master Plan.

The Land Use Chapter of the Framework Element provides primary objectives to support the viability of the City's residential neighborhoods and commercial and industrial districts and to encourage sustainable growth in appropriate locations. The Land Use Chapter establishes land use categories which are broadly described by ranges of intensity/density, heights, and lists of typical uses. These land use categories do not connote land use entitlements or affect existing zoning for properties in the City and are intended to serve as a guideline for the Community Plans. The Land Use Chapter indicates portions of Martin Luther King Jr. Boulevard and Vermont Avenue near the Modified Project Site are designated as a Mixed Use Boulevard. Mixed Use Boulevards are described as connections between the City's neighborhood districts and community, regional, and Downtown centers. Mixed-use development is encouraged along these boulevards, with the scale, density and height of development compatible with the surrounding areas. The Modified Project would implement the intent of the Framework Element by maintaining and enhancing pedestrian connections, reinvigorating the community experience within Exposition Park by providing a new cultural facility and improvements to Jesse Brewer Jr. Park, and providing uses that would be compatible in scale with the Coliseum and other nearby uses. In addition, as discussed in Section IV.A, Aesthetics, above, the scale, mass, and height of the proposed LMNA building would be compatible with surrounding uses within and adjacent to Exposition Park. Therefore, the Modified Project would be consistent with the intent of the Framework Element.

The South Los Angeles Community Plan functions as the Land Use Element of the City's General Plan that is applicable to the Modified Project Site. With the exception of the southernmost portion of the Modified Project Site that is designated for Community Commercial and High Medium Residential uses, the Community Plan designates the majority of Modified Project Site and all of Exposition Park as Open Space (OS), and also identifies Exposition Park as a "major opportunity site." The OS designation permits parks, community centers and public serving facilities under the ownership or operation of a public agency. The portions of the Modified Project Site that are designated as Open Space are owned by the Sixth District Agricultural Association, a state agency (also referred to as Expo Park), or the City of Los Angeles. Moreover, the corresponding zones for Community Commercial and High Medium Residential allow the uses under the Modified Project

proposed in those land use designations. The proposed uses under the Modified Project would be consistent with the Open Space, Community Commercial, and High Medium Residential land use designations of the Project Site. The Modified Project would also support the relevant land use objectives and policies of the Community Plan. Specifically, the development of LMNA would provide new employment opportunities and strengthen the economic base of the area consistent with Objective 2-3. The proposed design of the Modified Project would improve the appearance of the Modified Project Site, provide additional landscaping, and preserve the character, scale, and architectural diversity of Exposition Park and the surrounding area consistent with Policies 2-5.1 and 2-5.2. Implementation of the Modified Project would also preserve and enhance existing recreational facilities, park space, and pedestrian connections within Exposition Park, consistent with Policies 4-1.1 and 4-1.2. In addition, the design of the new LMNA building would provide a variety of public spaces consistent with Policy 5-1.2. As with the Approved Project, the Modified Project would preserve the historic character of the Coliseum and the construction of the museum would be complimentary to the Coliseum consistent with Community Plan Objective 1-4 and Policies 1-4.1, and 19-2.1. The LMNA would be located just south of the Metro Expo Line Expo/Vermont Station and is served by numerous bus lines operated by Metro consistent with Policy 13-1.1. Furthermore, the Modified Project would provide a new amenity within Exposition Park consistent with Objective 20-1 and Policies 20-1.1 and 20-1.2.

The Modified Project Site is zoned OS-1XL (Open Space, Extra Limited Height District 1), RD1.5-1 (Restricted Density Multiple Dwelling Zone, and C2-1L (Commercial, Height District IL) under LAMC. In addition, the Modified Project is also located within the boundaries of the Coliseum District Specific Plan. The Specific Plan provides additional land use regulations applicable development of property within the Specific Plan area. As explained in Section 3.B of the Specific Plan, "[w]henever this Specific Plan contains provisions that establish regulations... which are different from, more restrictive or more permissive than what would be allowed pursuant to the provisions contained in the LAMC [Los Angeles Municipal Code], this Specific Plan shall prevail and supersede the applicable provisions of the LAMC and those relevant ordinances." Therefore, the land use regulations of the Specific Plan supersede those of the LAMC.

The Specific Plan currently permits a variety of uses in the Specific Plan area, including the operation of sports, entertainment and public gathering facilities; the sale of concessions and alcoholic beverages for consumption on-site; the sale of merchandise and other retail uses; offices; restaurants; bars; cafes; outdoor eating areas; museums; special events; telecommunication facilities; facilities for motion picture and television broadcasting; and parking facilities. In accordance with existing Specific Plan requirements, front, side, or rear yards or building setbacks are not be required. The Specific Plan also requires that 850 parking spaces be retained within the Specific Plan

area. In addition, the Coliseum and Soccer Stadium Sign District (Sign District) has been established that regulates signage within the Specific Plan area. The Modified Project proposes an amendment to the Specific Plan to provide applicable development parameters for the Modified Project Site. Specifically, the Specific Plan Amendment would contain regulations for the development and operation of LMNA, including permitted uses, height, floor area, required parking, and the sale and consumption of alcohol within the museum's restaurant and special event spaces. Although the Modified Project is proposing a Specific Plan Amendment, the Modified Project is compatible with the Specific Plan's generally permitted uses. In addition, at least 850 parking spaces would continue to be provided within the Specific Plan Area. In addition, with regard to signage, the Modified Project is not seeking to amend the Sign District. Therefore, all signage would comply with the applicable LAMC requirements.

SCAG's 2016 RTP/SCS, adopted on April 7, 2016, presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. The mission of the 2016 RTP/SCS is to provide "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians." The 2016 RTP/SCS establishes High-Quality Transit Areas, which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Local jurisdictions are encouraged to focus housing and employment growth within High-Quality Transit Areas. The Project Site is located within a High-Quality Transit Area as designated by the 2016 RTP/SCS. Like the Approved Project, the Modified Project is located in proximity to public transit opportunities (e.g., Expo Light Rail, Harbor Transitway BRT station), thereby minimizing vehicle trips, vehicle miles traveled (VMT), and resulting air pollution. By focusing new development within a designated High-Quality Transit Area, the Modified Project would be consistent with regional growth strategies promoted in the 2016 RTP/SCS. In addition, the Modified Project would include energy conservation, water conservation, and waste reduction features that would exceed the requirements and commitments applicable to the Approved Project. Therefore, the Modified Project would be consistent with the applicable goals and principles set forth in the 2016 RTP/SCS.

As discussed in the Certified EIR, SCAG's Compass Growth Vision, adopted in 2004, encourages better relationships between housing, transportation, and employment. The Compass Growth Vision is driven by four key principles: (1) Mobility—Getting where we want to go; (2) Livability—Creating positive communities; (3) Prosperity—Long-term health for the region; and (4) Sustainability—Preserving natural surroundings. SCAG's 2004 Growth Vision Report identified 2% Strategy Opportunity Areas, which represented areas of the region that were targeted for growth, where projects, plans, and policies consistent with the key principles would best serve the goals of the Compass Growth Vision to improve mobility for all residents, foster livability in all communities, enable

prosperity for all people, and promote sustainability for future generations. Since certification of the Certified EIR, the 2% Strategy Opportunity Areas have been effectively replaced with the High-Quality Transit Areas established in the 2016 RTP/SCS, as discussed above. The Modified Project is located in an area with an abundance of transit opportunities. In addition, the Modified Project would include water and energy conservation features and would also preserve and enhance the surrounding area within Exposition Park. Thus, the Modified Project would also be consistent with the principles set forth in the Compass Growth Vision.

As discussed above, the Modified Project also includes the vacation and closure of 39th Street between Vermont Avenue and Bill Robertson Lane. Following vacation, 39th Street would continue to provide public access between Vermont Avenue and Bill Robertson Lane during major events at Exposition Park, but would generally be closed to public traffic. In order to vacate 39th Street, a general plan amendment to change the street designation of 39th Street between Vermont and Bill Robertson Lane from a Collector Street to a Local Street is required. Also required to implement the Modified Project are Project Permit Compliance Review for Project compliance with the Specific Plan as well as a Vesting Tentative Tract Map for the merger and resubdivision of the site.

Based on the above, the Project would comply with applicable land use plans. In addition, with approval of the Specific Plan Amendment, Project Permit Compliance Review, Vesting Tentative Tract Map, and General Plan Amendment for the vacation of 39th Street, the Modified Project would comply with relevant planning and zoning regulations. Thus, land use impacts under the Modified Project would continue to be less than significant and would be within the envelope of impact set forth for the Approved Project in the Certified EIR and addenda.

F. Noise

(1) Noise and Vibration Background

The Modified Project Site is located in a highly urbanized environment. Primary noise sources in the vicinity include events at the Coliseum, traffic on the adjacent streets (i.e., Vermont Avenue, Exposition Boulevard, Martin Luther King Jr. Boulevard, and the Exposition Metro Light Rail (along Exposition Boulevard). The passive recreational open spaces and outdoor soccer field are also sources of noise.

Noise-sensitive receptors within the vicinity of the Modified Project Site include residential uses located west of Vermont Avenue and south of Martin Luther King Jr. Boulevard. Noise-sensitive uses within Exposition Park also include passive recreational areas, museums, and educational facilities. To establish baseline noise conditions within

the vicinity of the Modified Project Site, existing daytime and nighttime ambient noise levels were measured at seven locations as shown in Figure 6 on page 60. Table 5 on page 61 provides the measured ambient noise levels at the receptor locations. As indicated therein, the daytime ambient noise levels within the Project Site vicinity range from 53.7 dBA L_{eq} at the Theodore T. Alexander Jr. Science Center School (Receptor Location R4) to 75.0 dBA L_{eq} at the residential uses along Martin Luther King Jr. Boulevard (Receptor Location R7). In addition, the nighttime ambient noise levels range from 50.9 dBA L_{eq} at Receptor Location R4 to 74.1 dBA at Receptor Location R7.

With regard to existing groundborne vibration, the typical sources of groundborne vibration in the vicinity of the Project Site include roadway truck traffic and buses. These vehicles typically generate groundborne vibration velocity levels of approximately 63 vibration decibels (VdB), with levels reaching 72 VdB where the vehicles pass over bumps in the road. In addition, the Exposition Metro Light Rail also generates groundborne vibration of approximately 75 VdB at 48 feet from the track centerline.[19]

(2) Construction-Related Noise

As set forth in the Certified EIR and addenda, construction of the Approved Project would result in a relatively short-term and temporary noise impact for nearby sensitive receptors. Sensitive receptors are located within Exposition Park and within 100 feet of the proposed active construction areas. Under the Approved Project, without mitigation, sensitive receptors would experience significant noise levels above 75 dBA that would occur during improvements outside of the Coliseum and during renovations of the stadium. In addition, off-site construction noise would likely result from the ingress and egress of haul trucks used to transport excavated materials. However, with implementation of mitigation measures provided below and compliance with the City of Los Angeles Noise Ordinance, construction-related noise impacts under the Approved Project would be reduced to less than significant levels.

Under the Modified Project, construction activities would be associated with building the new parking structures, the LMNA building, relocation of the soccer field, and landscape and access improvements within Jesse Brewer Jr. Park to the north and the western portion of Exposition Park south of the Natural History Museum. Construction of the LMNA and associated improvements would include the following six phases: (1) demolition; (2) grading; (3) grading/foundation overlap; (4) foundation/building construction overlap; (5) building construction; and (6) site finishing (paving/landscaping). It is anticipated that the types of construction equipment that would be used for

[19] *Los Angeles County Metro, Mid-City/Westside Transit Draft EIS/EIR, April 2001, Table 3.9-14.*

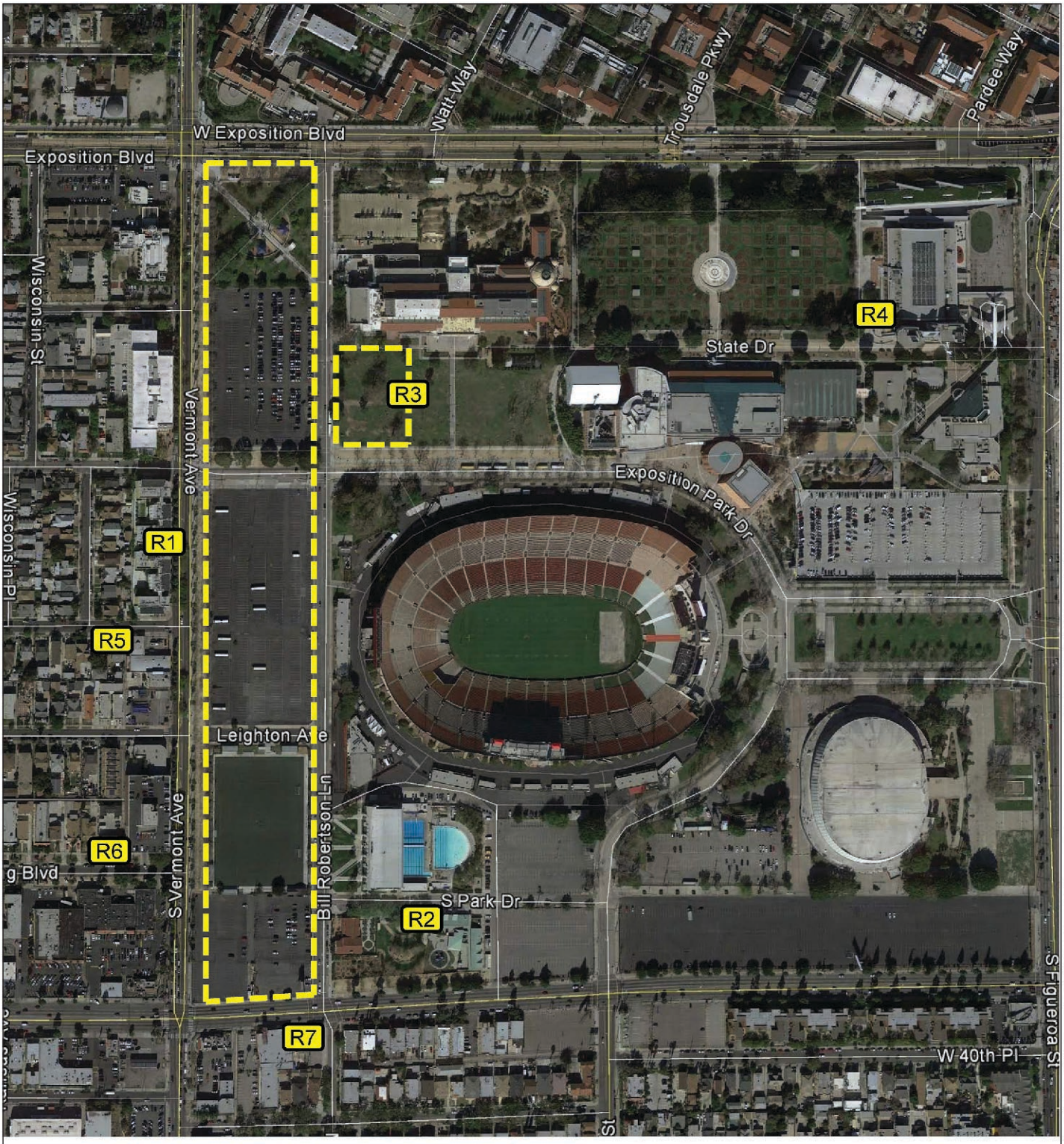


Figure 6
Noise Monitoring Locations

Source: Eyestone Environmental, 2017.

Table 5
Existing Ambient Noise Levels

Receptor Location	Description of Receptor	Measured Ambient Noise Levels, dBA L_{eq}	
		Daytime	Nighttime
R1	Vermont Senior Housing on the west side of Vermont Avenue, west of the Project Site	68.6	65.6
R2	Ralph M. Parsons Preschool located within the Expo Center, southeast of the Project Site	58.1	51.8
R3	Exposition Park Natural History Museum open space, east of the Project Site	56.0	55.2
R4	Theodore T. Alexander Jr. Science Center School	53.7	50.9
R5	Residential use on 39th Place west of Vermont Avenue, west of the Project Site	62.6	55.3
R6	Residential use on Browning Boulevard west of Vermont Avenue, west of the Project Site	58.3	57.4
R7	Residential use Martin Luther King Jr. Boulevard, south of the Project Site	75.0	74.1

Source: AES, 2017.

construction of the proposed improvements would be similar to those used for the Approved Project. A detailed construction noise model was created and included in Appendix E of this Addendum to calculate the construction-period noise levels at the off-site sensitive receptors, using the construction equipment reference noise levels provided by the Federal Highway Administration (FHWA).[20] The average (hourly L_{eq}) noise level associated with each construction phase is calculated based on the anticipated quantity and type of equipment that would be used during each construction phase. Table 6 on page 62 provides the estimated construction noise levels for various construction phases at the Project Site's off-site noise-sensitive receptors. To represent the maximum construction noise levels at the off-site sensitive receptors, all construction equipment was assumed to operate simultaneously and was assumed to be located at the construction area nearest to the affected receptors. As indicated in Table 6, the estimated construction-related noise would exceed the significance threshold (existing ambient plus 5 dBA) at all off-site noise-sensitive uses, with the exception of Receptor Location R4. However, with implementation of Mitigation Measures MM 1 through MM 5 below, such impacts would be reduced to less than significant levels.

[20] *FHWA Roadway Construction Noise Model User's Guide, 2006.*

Table 6
Estimated Construction Noise Levels

Receptor Location	Approximate Distance to Project Construction Area (feet)	Estimated Construction Noise Levels by Phases, dBA L_{eq}						Significance Threshold[a] dBA L_{eq}
		Demolition	Grading	Grading/ Foundation Overlap	Foundation/ Building Construction Overlap	Building Construction	Site Finishes	
R1	125	80.0	77.8	77.8	78.6	80.2	80.5	73.6
R2	375	73.3	60.3	60.3	60.0	53.0	73.9	63.1
R3	250	73.3	71.2	71.2	70.9	73.2	73.9	61.0
R4	1,785	51.9	49.8	49.8	49.5	51.9	52.5	58.7
R5	260	71.4	69.3	69.3	69.0	62.2	72.1	67.6
R6	260	71.4	64.3	64.3	64.0	54.9	72.1	63.3
R7	100	81.1	68.1	68.1	67.9	61.1	70.9	80.0

[a] *Significance threshold is equal to the measured ambient noise levels plus 5 dBA.*

Source: AES, 2017.

With regard to potential construction-related impacts associated with off-site traffic noise, based on the Project's Traffic Study, the maximum number of construction-related truck trips would occur during the grading phase, where there would be a maximum of 550 daily truck trips (275 incoming and 275 leaving).[21] Based on an 8-hour haul day and even distribution of haul trucks, there would be approximately 68 haul truck trips (34 incoming and 34 leaving) per hour. It is anticipated that the haul trucks would travel to and from I-110 via Bill Robertson Lane and Exposition Boulevard. There would also be approximately 40 workers onsite during the grading phase. However, the workers would typically arrive on-site prior to the start of the construction and leave following construction finished. The estimated noise level from construction-related trucks would be approximately 58.9 dBA L_{eq} at Receptor Location R3 facing Bill Robertson Lane, which would be 2.9 dBA above the existing ambient noise level of 56.0 dBA (measured Receptor Location 1). The construction-related truck noise generate noise level of approximately 64.7 dBA L_{eq} along Exposition Boulevard would be consistent with the existing ambient noise level of approximately 68.6 dBA L_{eq} (based on measured ambient noise level at Receptor Location R1).[22] Thus, the estimated noise levels from the construction-related traffic along the anticipated haul routes (Bill Robertson Land and Exposition Boulevard)

[21] *Gibson Transportation Consulting, Inc., "Traffic Impact Study for the Lucas Museum of Narrative Art," March 2017.*

[22] *Ambient noise level along Exposition Boulevard is estimated based on the measured ambient noise level along Vermont Avenue, which has similar traffic volume.*

would be below the significance threshold of 5 dBA L_{eq} above ambient.[23] Therefore, similar to the Approved Project, noise impacts associated with off-site construction under the Modified Project would be less than significant. No mitigation measures are required.

With regard to vibration during construction, under the Modified Project, the closest receptor to on-site construction activities would be Receptor Location R7 south of the Project Site. Based on an approximate distance of 100 feet, the construction-related vibration level at this location would be approximately 69 VdB. This vibration level is less than the FTA's vibration impact threshold of 72 VdB, applicable to residential uses.[24] In addition, the construction trucks would generate a vibration level of up to 70 VdB at the sensitive receptors along the haul route (i.e., the USC residence building on the north side of Exposition Boulevard and the residential building at the northeast corner of Figueroa Street and Exposition Boulevard). Therefore, ground-borne vibration impacts associated with construction would also be less than significant. No mitigation measures are required.

(3) Operational Noise

As discussed in the Certified EIR, the Approved Project would involve the renovation of an existing recreational facility that already creates significant noise impacts, and would not increase the intensity of crowds. Thus, event-related noise impacts associated with the Approved Project would be less than significant. In addition, as set forth in the Certified EIR and addenda, the Approved Project, which includes a reduction in Coliseum attendees on an event day, would not result in new significant traffic event noise impacts.

Provided below is an analysis of potential impacts of the Modified Project associated with use of outdoor open spaces, special events, parking facilities, loading dock areas, mechanical equipment, and the relocated soccer field. As demonstrated by these analyses, like the Approved Project, impacts associated with operation of the Modified Project would be less than significant.

(a) Use of Outdoor Spaces

The Modified Project would include additional landscaped open space areas at the lower outdoor levels below the LMNA building as wells as an expansive roof garden within the upper level of the LMNA building. Noise sources associated with outdoor uses typically include noise from people gathering and conversing. For this analysis, reference noise levels of 65 dBA for a male and 62 dBA for a female speaking in a raised voice were used

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[23] *City of Los Angeles, "L.A. CEQA Thresholds Guide," 2006, Chapter I.1 Construction Noise.*

[24] *FTA, "Transit Noise and Vibration Impact Assessment," May 2006.*

to analyze potential noise impacts from people gathering at the outdoor spaces.[25] In order to analyze a typical noise scenario, it was assumed that up to 50 percent of the people (half of which would be male and the other half female) would be talking at the same time. For the noise analysis, it was assumed that up to approximately 6,320 people would gather at within the open space areas to the south of the LMNA building and up to approximately 1,270 people would gather within the upper rooftop level. Another potential noise source associated the upper rooftop level of the LMNA would be the use of an outdoor amplified sound system. It was assumed that the amplified program sound system would have a maximum noise level of 80 dBA L_{eq} at a distance of 25 feet from the speaker locations. Table 7 on page 65 presents the estimated noise levels from the Project outdoor spaces. As indicated in Table 7, the estimated noise levels at all off-site receptors would be below the significance threshold of 5 dBA L_{eq} above ambient noise levels. As such, noise impacts from use of the outdoor spaces would be less than significant. Mitigation Measure 6 has been included below to ensure that the noise levels at the speaker would not exceed 80 dBA L_{eq} at a distance of 25 feet from the speaker locations.

(b) Special Events

The Project proposes to vacate the portion of 39th Street between Vermont Avenue and Bill Robertson Lane, which would allow for periodic special events within the vacated area. For the noise analysis, it was assumed that up to approximately 2,000 people would gather within this area and that an amplified sound system may be used. It was assumed that the amplified program sound system would have a maximum noise level of 88 dBA L_{eq} at a distance of 25 feet from the speaker locations. As indicated in Table 8 on page 66, the estimated noise levels at all off-site receptors would be below the significance threshold of 5 dBA L_{eq} above ambient noise levels. As such, noise impacts associated with the special events at this location would be less than significant. Mitigation Measure 6 has been included below to ensure that the noise levels at the speaker would not exceed 88 dBA L_{eq} at a distance of 25 feet from the speaker locations.

(c) Parking Facility

The Modified Project would include a two-level parking structure, located beneath the LMNA building along with a separate three-level subterranean parking structure located to the south of the LMNA building. Since the parking structure would be fully enclosed, noise associated with the parking structure would be shielded from the off-site sensitive receptors. In addition, any mechanical equipment within the structure would be shielded and would comply with the noise limitation requirements set forth in Section 112.02 of the

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[25] *Harris, Cyril M., Handbook of Acoustical Measurements and Noise Control, Third Edition, 1991, Table 16.1.*

Table 7
Noise Levels from Use of Outdoor Spaces

Receptor Location	Existing Ambient Noise Levels, dBA L_{eq}	Estimated Noise Levels from the Outdoor Uses, dBA L_{eq}	Ambient Plus Outdoor Uses Noise Levels, dBA L_{eq}	Significance Threshold,[a] dBA L_{eq}
R1	68.6	53.0	68.7	73.6
R2	58.1	36.7	58.1	63.1
R3	56.0	53.3	57.9	61.0
R4	53.7	36.7	53.8	58.7
R5	62.6	48.7	62.8	67.6
R6	58.3	28.9	58.3	63.3
R7	75.0	42.6	75.0	80.0

[a] *Significance threshold is equal to the measured ambient noise levels plus 5 dBA.*
Source: AES, 2017.

LAMC. Thus, noise associated with the new parking structure would be less than the noise levels associated with the existing above grade surface parking lot. Therefore, noise impacts associated with the parking facility would be less than significant.

(d) Loading Dock Activities

The Modified Project would include two loading docks and two trash collections areas, located with the northeast and southeast corners of LMNA building. The two loading docks would be located within the ground level of the LMNA building and would be shielded from the off-site residential uses. Based on measured noise levels from typical loading dock facilities and trash compactors, delivery/trash collection trucks and trash compactors could generate noise levels of approximately 71 dBA L_{eq} and 66 dBA L_{eq}, respectively, at a distance of 50 feet.[26] Table 9 on page 67 presents the estimated noise levels at the off-site receptor locations from operation of the loading dock and trash compactor. As indicated in Table 9, the estimated noise levels from the loading dock and trash compactor at all off-site receptor locations would be below the significance threshold of 5 dBA L_{eq}. Therefore, noise impacts associated with loading dock and trash compactor operations under the Modified Project would be less than significant and no mitigation measures would be required.

[26] *RK Engineering Group, Inc., Wal-Mart/Sam's Club Reference Noise Level Study, 2003.*

Table 8
Noise Levels from Special Events

Receptor Location	Existing Ambient Noise Levels, dBA L_{eq}	Estimated Noise Levels from the Outdoor Uses, dBA L_{eq}	Ambient Plus Outdoor Uses Noise Levels, dBA L_{eq}	Significance Threshold, [a] dBA L_{eq}
R1	68.6	63.3	69.7	73.6
R2	58.1	43.7	58.3	63.1
R3	56.0	58.6	60.5	61.0
R4	53.7	39.3	53.9	58.7
R5	62.6	40.7	62.6	67.6
R6	58.3	28.5	58.3	63.3
R7	75.0	44.0	75.0	80.0

[a] *Significance threshold is equal to the measured ambient noise levels plus 5 dBA.*
Source: AES, 2017.

(e) Mechanical Equipment

The operation of mechanical equipment such as air conditioners, fans, and related equipment may generate audible noise levels. However, all mechanical equipment would be designed with appropriate noise control devices, such as sound screen/parapet walls, to comply with the noise limitation requirements set forth in Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping and filtering equipment from exceeding the noise level on the premises of other occupied properties by more than 5 dBA. Therefore, operation of new mechanical equipment would not exceed the thresholds of significance identified above. Impacts would be less than significant, and no mitigation measures are required.

(f) Relocated Soccer Field

The proposed Project would relocate the existing soccer field to the southern portion of the site, at the corner of Vermont Avenue and Martin Luther King Jr. Boulevard. Noise levels from the existing soccer field was measured on January 17, 2017, and used to model the noise associated with the new location. Table 10 on page 68 presents the estimated noise levels from the soccer field with the field at the existing and at the future relocated locations. As indicated therein, the estimated noise levels from the soccer field at the future relocated location would be lower than existing noise levels at Receptor Locations R1, R3, R4 and R5. The estimated soccer field noise levels at Receptor Locations R2, R6 and R7 would be somewhat higher with the relocated soccer. However, the estimated noise levels at these receptor locations would be consistent with the existing

Table 9
Noise Levels from Loading Docks and Trash Compactors

Receptor Location	Existing Ambient Noise Levels, dBA L_{eq}	Estimated Noise Levels from the Loading Dock/Trash Compactor, dBA L_{eq}	Ambient Plus Loading Dock/Trash Compactor Noise Levels, dBA L_{eq}	Significance Threshold,[a] dBA L_{eq}
R1	68.6	30.1	68.6	73.6
R2	58.1	21.6	58.1	63.1
R3	56.0	52.7	57.7	61.0
R4	53.7	34.9	53.8	58.7
R5	62.6	26.3	62.6	67.6
R6	58.3	18.2	58.3	63.3
R7	75.0	13.3	75.0	80.0

[a] *Significance threshold is equal to the measured ambient noise levels plus 5 dBA.*
Source: AES, 2017.

ambient and well below the significance threshold of 5 dBA Leq above ambient noise levels. Therefore, noise associated with the relocation of the soccer field would be less than significant. No mitigation measures are required.

(g) Off-Site Traffic

Twenty one (21) roadway segments were selected to evaluate potential traffic noise impacts associated with the Modified Project. These segments were selected based on proximity to noise-sensitive uses along the roadway segments and potential increases in traffic volumes from the proposed Project. Traffic noise levels were calculated using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) and traffic volume data from the Project's Transportation Report. The TNM traffic noise prediction model calculates the hourly L_{eq} noise levels based on specific information including the hourly traffic volume, vehicle type mix, vehicle speed, and lateral distance between the noise receptor and the roadway. To calculate the 24-hour CNEL levels, the hourly L_{eq} levels were calculated during daytime hours (7:00 A.M. to 7:00 P.M.), evening hours (7:00 P.M. to 10:00 P.M.), and nighttime hours (10:00 P.M. to 7:00 A.M.). The Modified Project is expected to be operational in 2021. Thus, to determine the Project-related noise impacts, the roadway noise levels under "Future (2021) Without Project" conditions were calculated and compared to noise levels that would occur with implementation of "Future (2021) Plus Project" conditions set forth in the Project's Transportation Report.

Table 10
Noise Levels from Soccer Field

Receptor Location	Existing Ambient Noise Levels, dBA L_{eq}	Estimated Noise Levels from the Soccer Field, dBA L_{eq}		Significance Threshold,[a] dBA L_{eq}
		With Field at Existing Location	With Field at Future Location	
R1	68.6	57.0	53.8	73.6
R2	58.1	54.6	62.3	63.1
R3	56.0	51.5	48.8	61.0
R4	53.7	37.5	34.5	58.7
R5	62.6	50.4	44.8	67.6
R6	58.3	55.3	61.3	63.3
R7	75.0	59.3	66.7	80.0

[a] *Significance threshold is equal to the measured ambient noise levels plus 5 dBA.*
Source: AES, 2017.

The calculated off-site roadway noise levels in the vicinity of the site for the Future (2021) Without Project and Future (2021) Plus Project conditions are provided in the noise calculation worksheets (see Appendix E of this Addendum). The calculated CNEL levels are applicable to receptors with a direct line-of-sight to the roadways and do not account for the presence of any physical sound barriers or intervening structures. Traffic volumes from the Modified Project would result in a maximum noise increase of up to 0.2 dBA (CNEL) for a typical weekday, and up to 0.5 dBA (CNEL) for a typical weekend, along Exposition Boulevard. The noise increase along other analyzed roadway segments would be lower. The increase in traffic noise levels is considered negligible and would be well below the 3-dBA significance threshold (applicable when noise level falls within the normally unacceptable category (70 CNEL or greater at noise-sensitive uses). Therefore, off-site traffic noise impacts associated with the proposed Project would be less than significant. Thus, similar to the Approved Project, noise impacts associated with off-site roadways under the proposed Project would be less than significant. No mitigation measures are required.

(4) Mitigation Measures

The Certified EIR included mitigation measures 1 through 5 below to ensure that potential construction-related impacts would be less than significant. The Modified Project would continue to implement these mitigation measures with changes shown as ~~strikethrough~~ or underline. In addition, Mitigation Measure 6 has been added to ensure

that potential impacts associated with future amplified sound systems would be less than significant.

1. The Applicant shall comply with the construction hours as specified by the City LAMC Noise Ordinance, Chapter IV, Section 41.40, which prohibits construction before 7:00 A.M. or after ~~6:00~~ 9:00 P.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday or any national holiday, and at anytime on Sunday.

2. The Applicant shall prepare a construction-related traffic plan detailing proposed haul routes and staging areas for the transportation of materials and equipment, with consideration for sensitive uses in the neighborhood. A traffic and parking plan for the construction phase will be submitted for approval by LADOT and the Department of Building and Safety prior to the issuance of any permits. Haul trucks shall not be permitted to travel along local residential streets.

3. Adjacent museums and residents shall be given regular notification of major construction activities and their durations. A visible and readable sign (at a distance of 50 feet) shall be posted on the construction site identifying a telephone number where residents can inquire about the construction process and register complaints.

4. During construction, the Project contractors shall muffle and shield intakes and exhaust, shroud and shield impact tools, and use electric-powered rather than diesel-powered construction equipment, as feasible.

5. The perimeter of the Project Site (including the ancillary outbuildings proposed to be demolished) shall be enclosed with a temporary barrier wall for security and noise protection purposes. This barrier wall shall consist of a solid, heavy vinyl material or 0.75-inch plywood positioned to block direct line of sight from the active construction. The noise barrier shall provide a minimum 5 dBA reduction at Receptor Locations R5 and R7, a minimum 8-dBA reduction at Receptor Location R1, a minimum 9-dBA reduction at Receptor Location R6, a minimum 11-dBA reduction at Receptor R2, and a minimum 13-dBA reduction at Receptor Location R3.[27]

6. The outdoor amplified sound systems shall be designed so as not to exceed a maximum noise level of 80 dBA $L_{eq\text{-}1hr}$ at a distance of 25 feet

[27] *Generally, an 8-foot-tall barrier would provide a noise reduction of approximately 5 dBA; a 10-foot-tall barrier would provide a noise reduction of approximately 8 to 9 dBA; a 12-foot-tall barrier would provide a noise reduction of approximately 11 dBA; and a 14-foot-tall barrier would provide a noise reduction of approximately 13 dBA.*

from the amplified sound systems within the fifth level outdoor space and 88 dBA $L_{eq\text{-}1hr}$ at a distance of 25 feet for the amplified sound system associated with special events at the ground level.

As with the Approved Project, implementation of the mitigation measures would ensure that potential noise impacts under the Modified Project would be less than significant.

G. Public Services

(1) Fire Protection

As evaluated in the Certified EIR and Addenda, the Approved Project would not alter the existing administrative fire protection procedures in place at the Coliseum and in the immediate surrounding area. In addition, the Approved Project would not require changes to the existing fire flow conditions as the Coliseum is an existing use and fire flow is maintained at an acceptable level. Furthermore, development of the Approved Project would not exacerbate existing adverse conditions with respect to traffic congestion during Coliseum events. Thus, Approved Project impacts associated with fire protection services would be less than significant and no mitigation measures were required.

As stated in the Certified EIR, three fire stations provide initial response to the Project vicinity: Fire Station No. 15, Fire Station No. 46, and Fire Station No. 14. Fire Station No. 15, which was located at 915 W. Jefferson Boulevard at the time the Certified EIR was prepared, has been moved to 3000 Hoover Street, approximately 1 mile from the Modified Project. Fire Station No. 46, located at 4370 S. Hoover Street, is approximately 1.1 miles from the Modified Project, and Fire Station No. 14, located at 3401 S. Central Avenue, is approximately 2.3 miles from the Modified Project. These three stations would continue to serve the site. At the time the Certified EIR was prepared, Fire Station No. 15 had a staff of 14 and was a task force station with a truck and engine company, a paramedic ambulance, an EMT ambulance. Fire Station No. 46 had a staff of eight and was a single engine company with a paramedic ambulance. Fire Station No. 14 had a staff of 14 and was a task force station with a truck and engine company, a paramedic ambulance, and an EMT ambulance. Based on current data from the City of Los Angeles Fire Department (LAFD), Fire Station No. 15 is equipped with two engines, two ambulances, and a truck, and has a staff of 14; Fire Station No. 46 is equipped with one engine and three ambulances, and has a staff of 10; and Fire Station No. 14 is equipped with one engine, two ambulances, and has a staff of 24.[28] Therefore, current equipment

[28] *Based on telephone conversations with Captain Marshall Rodgers (Fire Station No. 46), Captain Nicholas Avila (Fire Station No. 15), and Captain Mario Trujillo (Fire Station No. 14) on September 23, 2016.*

and staffing levels at the fire stations serving the Modified Project Site are commensurate with the levels that were assessed in the Certified EIR.

Construction activities have the potential to result in accidental on-site fires from such sources as the operation of mechanical equipment and the use of flammable construction materials. However, in compliance with Occupational Safety and Health Administration (OSHA) and Fire and Building Code requirements, Modified Project construction managers and personnel would be trained in emergency response and fire safety operations, which include the monitoring and management of life safety systems and facilities. Additionally, fire suppression equipment (e.g., fire extinguishers) specific to construction would be maintained on-site during Modified Project construction. Furthermore, construction of the Modified Project would occur in compliance with all applicable federal, state, and local requirements concerning the handling, disposal, use, storage, and management of hazardous waste. Thus, compliance with applicable regulatory requirements would effectively reduce the potential for construction activities under the Modified Project to expose people to the risk of fire or explosion related to hazardous materials. Therefore, as with the Approved Project, impacts related to fire protection services during construction would be less than significant under the Modified Project.

With regard to fire flow requirements, the Modified Project would fall within the Commercial category, which has a required fire flow of 6,000 gallons per minute (gpm) from hydrants flowing simultaneously with a residual pressure of 20 pounds per square inch (psi) as set forth in Section 57.507.3 of the LAMC. This demand translates to a required flow of 2,000 gpm each from three hydrants. An Information of Fire Flow Availability Request (IFFAR) was submitted to the City of Los Angeles Department of Water and Power (LADWP) regarding available fire hydrant flow to demonstrate compliance with the requirements of LAMC. As shown by the IFFAR, the three existing hydrants near the Modified Project flowing simultaneously can deliver combined flows of 6,000 gpm with a minimal residual pressure of 71 psi. In addition, the Modified Project would incorporate a fire sprinkler suppression system to reduce or eliminate public hydrant demands. Therefore, similar to the Approved Project, there is adequate fire flow available and the Modified Project would comply with the requirements of Section 57.507.3 of the LAMC. Furthermore, Section 57.507.3.3 of the LAMC provides that the maximum response distance from fire stations with an engine company is 1 mile and the maximum response distance from fire stations with a truck company is 1.5 miles for land uses in the Commercial category. Thus, as with the Approved Project, the Modified Project would fall within the maximum response distances from fire stations.

As with the Approved Project, the Modified Project would not alter the existing administrative fire protection procedures in place at the Coliseum. In addition, all

improvements would be constructed in compliance with the design and emergency access requirements set forth by the LAFD. In particular, as with other existing parking subterranean parking structures in the vicinity and throughout the City, the proposed subterranean parking structures would comply with LAFD's design and access requirements. Furthermore, an emergency response plan would be implemented as part of operation of the LMNA. Thus, based on the response distance standards set forth by the LAFD, and compliance with LAFD's requirements related to design, access, and fire flows, the Modified Project would not be anticipated to impact existing fire services and facilities necessitating the addition of a new fire station or an increase in equipment or personnel. Thus, the Modified Project would not create any new fire impacts and impacts would continue to be less than significant. Impacts would therefore be within the envelope of impact set forth in Certified EIR.

(2) Police Protection

As evaluated in the Certified EIR and Addenda, the Los Angeles Police Department (LAPD) would provide police protection services for the Approved Project. The Certified EIR determined that the Approved Project would not place an increased burden on police services in the Southwest Area and would not have any adverse impact on the ability of officers to respond to calls at the Coliseum. In addition, the Approved Project would not change the existing police protection personnel arrangement in place at the Coliseum, and off-duty police officers and private civilian security personnel would continue to be used during events. Furthermore, under the Certified EIR and First Addendum, mitigation was included that required a Security Plan and other security measures to be developed and implemented by the Project Applicant to minimize the potential for on-site crime and the need for LAPD services. Thus, with the implementation of the mitigation measures listed below, the Approved Project was determined to result in a less-than-significant impact on police protection services.

As discussed in the Certified EIR, the Project vicinity is served by the Southwest Community Police Station located at 1546 W. Martin Luther King Jr. Boulevard, approximately 1.2 miles west of the Project Site. At the time the Certified EIR was prepared, staff at the Southwest Area Police Station included 327 sworn officers and 26 civilian support staff. The staff at this police station currently consists of 352 sworn personnel and 32 civilian personnel serving a population of approximately 165,000 (or approximately 1 officer per 469 residents).[29] Thus, the staffing levels at the Southwest Community Police Station have increased since the preparation of the Certified EIR.

[29] *Los Angeles Police Department, About Southwest, www.lapdonline.org/southwest_community_police_station/content_basic_view/1639, accessed March 17, 2017.*

Additionally, at the time the Certified EIR was prepared, the average response time for emergency calls in the Southwest Area was 11.1 minutes. Based on current data provided by LAPD, in 2015, the average response time for emergency calls in the Southwest Area was 4.0 minutes.[30] Thus, average response time for the Southwest Area have significantly decreased since the preparation of the Certified EIR.

On-site construction activities associated with the development of the Modified Project could result in an increased demand for police protection services due to the potential for theft and vandalism. The Certified EIR for the Approved Project included a mitigation measure which requires security features such as guards, fencing, and locked entrances on the construction site. The Modified Project would also continue to implement this mitigation measure to reduce the demand for police protection services during construction. Therefore, consistent with the conclusions in the Certified EIR for the Approved Project, impacts with respect to police protection services during construction would be less than significant under the Modified Project with implementation of the mitigation identified in the Certified EIR. No additional mitigation measures are required.

The Modified Project would develop approximately 299,717 square feet of museum floor area on the Modified Project Site, which could increase the demand for police protection services on-site. However, the Modified Project would implement the same mitigation measures provided in the Certified EIR that include consultation with LAPD and implementation a wide range of security measures through a comprehensive Security Plan. The museum would include specific security measures, such as the use of security personnel, implementation of a surveillance system, security and parking lot lighting and installation of locks and alarms. In addition, the mitigation measures also require the implementation of an Emergency Procedures Plan outlining guidelines and procedures in the event of civil disturbance, evacuation or other types of emergencies. Thus, the Modified Project would not result in significant impacts associated with police protection services. Overall, under the Modified Project, impacts related to police protection services would continue to be less than significant with incorporation of mitigation measures and such impacts would be within the envelope of impacts set forth in the Certified EIR.

(a) Mitigation Measures

The following mitigation measures were included in the Certified EIR and addenda to ensure that impacts related to fire safety and police protection would be less than

[30] *Written correspondence from Ruby Flores, Captain, Commanding Officer, Community Relationship Division, Los Angeles Police Department, October 28, 2016.*

significant. These mitigation measures would continue to be implemented as part of the Modified Project.

1. Plot plans for the proposed renovation shall be submitted to the Los Angeles Police Department's Crime Prevention Section for review and comment. Security features subsequently recommended by the LAPD shall be implemented to the extent feasible.

2. Building plans shall be filed with the LAPD Southwest Area Commanding Officer. Plans shall include access routes, floor plans, evacuation routes, and any additional information that might facilitate prompt and efficient police response.

3. Security features shall be provided on the construction site(s), such as guards, fencing, and locked entrances.

4. Landscaping shall not be planted in a way that could provide cover for persons tampering with doors or windows of commercial facilities, or for persons lying in wait for pedestrians or parking lot users.

5. Additional lighting shall be installed where appropriate as determined in consultation with the LAPD.

6. Safety features shall be incorporated into Proposed Project to assure pedestrian safety, assist in controlling pedestrian traffic flows, and avoid pedestrian/ vehicular conflicts on-site. Safety measures may include provision of security and traffic control personnel; clearly designated, well-lighted pedestrian walkways on-site; special street and pedestrian-level lighting; physical barriers (e.g., low walls, landscaping), particularly around the perimeter of the Coliseum, to direct pedestrians to specific exit locations that correspond to designated crosswalk locations on adjacent streets.

7. A Security Plan shall be developed and implemented by the Applicant, in consultation with the LAPD, outlining the security services and features to be provided in conjunction with the Proposed Project. Security features may include but are not limited to the provision of a private on-site security force, implementation of a surveillance system, installation of locks and alarms on entryways where appropriate, security and parking lot lighting, "spotters" to survey parking lots, and maximum accessibility for emergency service personnel. The plan shall be reviewed by the LAPD, and any provisions pertaining to access shall be subject to review by the LADOT. A copy of the Plan shall be provided to the LAPD Southwest Area Commanding Officer.

8. An Emergency Procedures Plan shall be established and implemented by the Applicant outlining guidelines and procedures in the event of civil disturbance, evacuation, and other types of emergencies. The plan shall be subject to review by the LAPD, and any provisions pertaining to access shall be subject to review

by the LADOT. A copy of the Plan shall be provided to the LAPD Southwest Area Commanding Officer.

9. Traffic control personnel may be provided on adjacent roadways and in parking areas during Coliseum events and immediately preceding and following events to help prevent vehicles and pedestrians from obstructing emergency access.

H. Public Utilities

The following analysis is based, in part, on the *Lucas Museum of Narrative Art Utility Infrastructure Technical Report: Water, Wastewater, and Energy* (Utility Technical Report) prepared for the Project by KPFF Consulting Engineers, on March 28, 2017. This report is included as Appendix F of this Addendum.

(1) Energy

The Certified EIR stated that the LADWP's regional infrastructure would deliver the peak electrical requirement to the site and would not be expected to be severely affected by implementation of the Approved Project. However, additional power facilities would possibly be required in order to serve the load growth associated with the Approved Project. The Certified EIR and addenda also stated that such improvements could be made with minimal impact upon the surrounding land uses. In addition, a mitigation measure was included in the Certified EIR that required consultation with LADWP with regard to energy efficiency measures to be implemented. Thus, impacts to electricity infrastructure and supply were determined to be less than significant

With regard to natural gas, the Certified EIR confirmed that the Southern California Gas Company (SoCal Gas) would have the capacity to meet the natural gas demand of the Approved Project and the regional infrastructure would not be expected to be severely affected. Thus, impacts to natural gas services were determined to be less than significant.

Under the Modified Project, electricity would be consumed to construct the proposed building and facilities. Typical uses of electricity include temporary power for lighting, equipment, construction trailers, etc. The demand would be supplied from existing electrical services or a new temporary service and would not affect services to surrounding areas. Overall, demolition and construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. No use of natural gas infrastructure is expected to occur during construction. Therefore, impacts on electricity and natural gas supply associated with short-term construction activities of the Modified Project would be less than significant.

The development of approximately 299,717 square feet of new floor area under the Modified Project would increase the demand for electricity and natural gas resources. As with the Approved Project, energy and natural gas demand associated with the Modified Project would be met by the LADWP and SoCal Gas.[31,32] The Modified Project's estimated net electrical consumption of 5.1 megawatts (MW) would account for approximately 0.09 percent of LADWP's available capacity for the buildout year. The Modified Project's estimated new daily natural gas consumption of 0.1 million cubic feet per day would account for approximately 0.002 percent of SoCal Gas's available capacity for the buildout year. In addition, the proposed LMNA building would be required to comply with the 2016 Building Energy Efficiency Standards, which took effect January 1, 2017. These new regulations would result in additional energy savings when compared to the regulations that were in place when the Approved Project was proposed. Furthermore, the Modified Project would include solar panels and has been designed to implement features that are equivalent to the Leadership in Energy Efficiency and Design (LEED) Gold standards set forth by the U.S. Green Building Council. The Modified Project would also implement the same mitigation measure recommended by the LADWP for the Approved Project to further reduce impacts. Overall, in accordance with Appendix F of the CEQA Guidelines, the Project would not result in inefficient, wasteful, or unnecessary consumption of energy. Thus, the impacts to energy supply would continue to be less than significant and such impacts would be within the envelope of impacts set forth in the Certified EIR.

(a) Mitigation Measure

The following mitigation measure was recommended by LADWP to be incorporated into the final design as feasible, to reduce the Project's demands for energy resources and was included in the Certified EIR and addenda. This mitigation measure would continue to be implemented as part of the Modified Project.

1. During the design process, the Applicant should consult with the Los Angeles Department of Water and Power, Efficiency Solutions Business Group, regarding possible energy efficiency measures. The Applicant shall incorporate measures to meet or, if possible, exceed minimum efficiency standards for Title XXIV of the California Code of Regulations.

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[31] *Will-Serve Letter from LADWP, dated October 26, 2016. See Exhibit 4 of the Utility Technical Report included as Appendix F to this Addendum.*

[32] *Will-Serve Letter from SoCal Gas, dated March 17, 2017. See Exhibit 5 of the Utility Technical Report included as Appendix F to this Addendum.*

(2) Water

As evaluated in the Certified EIR, the Approved Project would require approximately 468,000 gallons per event with the development of the Approved Project, assuming maximum levels of attendance at all events, and 7,200 gallons of water per day on non-event days. This would result in a total of approximately 24 million gallons of water consumed by the Approved Project per year, based on 46 events per year and daily use of the ancillary structures. Water service for the Coliseum would continue to be provided by LADWP from the existing infrastructure. In addition, several mitigation measures were included in the Certified EIR that require consultation with LAFD and LADWP as well as incorporation of numerous water conservation features. Consequently, impacts to water service were considered to be less than significant.

Water would be used during the construction of the Modified Project for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Based on a review of construction projects of similar size and duration, a conservative estimate of construction water use ranges from 1,000 to 2,000 gallons per day (gpd). As discussed below, the LADWP would have sufficient capacity to service the Modified Project during operation. Thus, it is reasonable to assume that the existing water infrastructure would be able to meet the more limited and temporary water demand associated with construction of the Modified Project. Construction of the Modified Project would include new on-site water distribution lines to serve the new building, as well as potential relocation of existing lines. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the lines below surface. Installation of new water infrastructure would be limited to on-site water distribution, and minor off-site work associated with connections to the public main. No upgrades to public water mains are anticipated. Prior to ground disturbance, contractors would coordinate with LADWP to identify the locations and depth of all lines. Furthermore, LADWP would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. Therefore, Project impacts on water supply and infrastructure during construction would be less than significant.

The Modified Project would not increase the number of events or maximum attendance at the Coliseum when compared with the Approved Project. However, the Modified Project would result in the development of approximately 299,717 square feet of new floor area, which would increase the on-site domestic and fire flow water demand. The Modified Project improvements would connect to the existing 12-inch water main located in Vermont Avenue with a lateral that would be adequately sized to accommodate the expected water demand. As shown in Table 11 on page 78, the expected water demand for the Modified Project is approximately 21,255 gpd. In addition, as previously discussed, the Modified Project has a required fire flow of 6,000 gallons per minute from

Table 11
Proposed Water Demand

Use	Size/Unit	Generation Factor[a]	Average Daily Water Demand
Museum/Education/Operation/Public Spaces/Archive[b]	193,615 sf	36 gpd/1,000 sf	6,970 gpd
Shop[c]	2,973 sf	30 gpd/1,000 sf	89 gpd
Theater	600 seats	3.6 gpd/seat	2,160 gpd
Restaurant/Café	184 seats	36 gpd/seat	6,624 gpd
Event Space[d]	9,433 sf	420 gpd/1,000 sf	3,692 gpd
Office[e]	11,946 sf	144 gpd/1,000 sf	1,720 gpd
Total Proposed Water Demand			**21,255 gpd**

gpd = gallons per day
sf = square feet
[a] *Based on 120 percent of the sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (BOS, 2012).*
[b] *The standard BOS facility description of "Museum" was used to best represent the proposed Museum/Education/Operation/Public Spaces/Archive uses.*
[c] *The standard BOS facility description of "Retail" was used to best represent the proposed Shop use.*
[d] *The standard BOS facility description of "Banquet" was used to best represent the proposed Event Space use.*
[e] *The standard BOS facility description of "Museum: Office" was used to best represent the proposed Office use.*
Source: KPFF, Lucas Museum of Narrative Art, Utility Infrastructure Technical Report: Water, Wastewater, and Energy, March 17, 2017.

hydrants flowing simultaneously with a residual pressure of 20 pounds per square inch. LADWP has concluded that the municipal water system has sufficient capacity and infrastructure to service the Modified Project Site. A Service Advisory Request (SAR) Report was completed for the Modified Project, which demonstrated that a flow of up to 5,000 gallons per minute (gpm) can be delivered to the Project Site with a residual pressure of 59 psi to meet the Modified Project's domestic and fire flow water demand.[33] An Information of Fire Flow Availability Request (IFFAR) was also submitted to LADWP, which confirmed that the three existing public hydrants near the Modified Project flowing simultaneously can deliver combined flows of 6,000 gpm with a minimal residual pressure of 71 psi.[34] Furthermore, the Modified Project would incorporate a fire sprinkler

[33] *LADWP—Water System, SAR Number 56324, dated November 8, 2016. See Exhibit 2 of the Utility Technical Report included as Appendix F to this Addendum.*

[34] *LADWP—Water System, Information of Fire Flow Availability, revised December 21, 2016. See Exhibit 1 of the Utility Technical Report included as Appendix F to this Addendum.*

suppression system to reduce or eliminate public hydrant demands. Therefore, the SAR and the IFFAR confirm that LADWP has sufficient water infrastructure capacity to accommodate the Modified Project.

Compared to the Approved Project, the Modified Project would implement more stringent water conservation measures set forth by recent water regulations to reduce water consumption. Additionally, the Modified Project would implement the same mitigation measures as the Approved Project to address water conservation. As such, impacts to water supply and infrastructure capacity would continue to be less than significant under the Modified Project and such impacts would be within the envelope of impact set forth in Certified EIR.

(a) Mitigation Measures

The following mitigation measures were included in the Certified EIR and addenda to ensure impacts related to water supply and demand would be reduced to a less than significant level. These mitigation measures would continue to be implemented as part of the Modified Project.

1. The Project Applicant shall be required to comply with any improvements necessary to meet Los Angeles Fire Department fire-flow requirements for the Proposed Project.

2. The Proposed Project shall incorporate water saving techniques as required by the City of Los Angeles' mandatory water conservation program (Ordinance Nos. 166,080 and 163,532). Water conservation measures described in the ordinance include, but are not limited to, the following:

    a. As necessary, the Project Site shall be landscaped with drought-tolerant/ indigenous species (xeriscape).

    b. Low flow flush valves and shower head water-conservation devices shall be installed in all restroom and/or locker room facilities.

In addition, the City of Los Angeles Department of Water and Power recommends the following water conservation measures:

3. Automatic sprinkler systems should be set to irrigate landscaping during early morning hours or during the evening to reduce water losses from evaporation. However, care must be taken to reset sprinklers to water less often in cooler months and during the rainfall season so that water is not wasted by excessive landscape irrigation.

4. Reclaimed water should be investigated as a source to irrigate large landscaped areas, including the grass playing field.

5. On-site recycling of drainage from water used for playing field irrigation should be investigated.

6. Recirculating hot water systems which can reduce water waste in long piping systems where water must be run for considerable periods before hot water is received at the outlet should be investigated.

7. Plumbing fixtures should be selected which reduce potential water loss from leakage due to excessive wear of washers.

(3) Sanitary Sewers

As set forth in the Certified EIR and addenda, the Approved Project would generate approximately 390,000 gallons of sewage per event. Ancillary uses would generate approximately 6,000 gallons of wastewater per day. As described in the Certified EIR and addenda, existing infrastructure, including the Hyperion Treatment Plant, would have adequate capacity to accommodate the waste water flows. Thus, impacts related to sanitary sewers under the Approved Project would be less than significant, and no mitigation measures were required.

Construction activities for the Modified Project would result in a temporary increase in wastewater generation as a result of construction workers on-site. However, the wastewater generated during construction would be temporary and nominal when compared to the amount of wastewater generated during operation of the Modified Project. In addition, construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the City's wastewater system. As discussed below, the existing public sewer system would have capacity to accommodate the estimated wastewater flows from the Modified Project during operation. Thus, it is reasonable to assume that the existing public sewer system would be able to meet the limited and temporary flows associated with construction of the Modified Project. Construction of the Modified Project would include new on-site infrastructure to serve the new building, relocation of existing infrastructure, and potential upgrade and relocation of existing infrastructure. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to public infrastructure. Installation of wastewater infrastructure would be limited to on-site wastewater distribution, and minor off-site work associated with connections to the public main. Overall, construction impacts would be short-term and would cease to occur once the installation of the required infrastructure is complete. Therefore, as with the Approved Project, impacts to wastewater capacity and infrastructure during construction would be less than significant.

The Modified Project would not include an increase in the number of seats or the number of events at the Coliseum when compared with the Approved Project. However, the Modified Project would result in the development of approximately 299,717 square feet of new floor area of museum space, including galleries, restaurant, theater, educational, and office uses, which would increase the wastewater generation on-site. According to the Utility Technical Report, there is an existing eight-inch sewer line in Vermont Avenue and an 8-inch sewer line in Bill Robertson Lane, each with a capacity of approximately 0.709 cubic feet per second, or 458,149 gpd. As shown in Table 12 on page 82, the Modified Project would generate approximately 17,938 gpd of wastewater. A Sewer Capacity Availability Report (SCAR) was submitted and approved for the Modified Project, which confirmed that the existing public sewer system would have capacity to accommodate the estimated wastewater flows from the Modified Project.[35] The 17,938 gpd of wastewater flow from the Modified Project would represent less than five percent of the capacity of the existing sewer lines in Vermont Avenue and Bill Robertson Lane. Furthermore, the wastewater flow generated by the Modified Project represents less than one percent of the Hyperion Treatment Plant's capacity, which is approximately 550 million gallons per day. Thus, potential impacts associated with wastewater would continue to be less than significant and such impacts would be within the envelope of impact set forth in the Certified EIR.

(4) Solid Waste and Disposal

As set forth in the Certified EIR and addenda, the Approved Project would generate a net increase of approximately 1,023,600 pounds (or approximately 512 tons) of solid waste per event. As the Approved Project would represent a relatively low increase in annual solid waste generation at the Project Site compared to existing conditions, the regional landfill capacity was determined to have adequate capacity for solid waste generated by the Approved Project. Impacts would be less than significant and no mitigation measures were required.

Construction of the Modified Project would involve demolition and building construction activities. These activities would generate construction and demolition wastes (e.g., wood, concrete, asphalt, cardboard, brick, glass, plastic, and metal) that would be recycled or collected by private waste haulers contracted by the Applicant and taken to a City-certified waste processing facility for sorting and final distribution, including disposal at the County's unclassified landfill. Since construction and demolition waste would be hauled by a private construction contractor permitted by the City, the Project would not result in the

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[35] *Sewer Capacity Availability Request (SCAR) and approval letter, March 6, 2017. See Exhibit 3 of the Utility Technical Report included as Appendix F to this Addendum.*

Table 12
Proposed Wastewater Generation

Use	Size/Unit	Generation Factor[a]	Average Daily Water Demand
Museum/Education/Operation/Public Spaces/Archive[b]	193,615 sf	30 gpd/1,000 sf	5,808 gpd
Shop[c]	2,973 sf	25 gpd/1,000 sf	74 gpd
Theater	600 seats	3 gpd/seat	1,800 gpd
Restaurant/Café	184 seats	30 gpd/seat	5,520 gpd
Event Space[d]	9,433 sf	350 gpd/1,000 sf	3,302 gpd
Office[e]	11,946 sf	120 gpd/1,000 sf	1,434 gpd
Total Proposed Wastewater Generation			**17,938 gpd**

gpd = gallons per day
sf = square feet
[a] *Based on the sewage generation rates provided by BOS (2012).*
[b] *The standard BOS facility description of "Museum" was used to best represent the proposed Museum/Education/Operation/Public Spaces/Archive uses.*
[c] *The standard BOS facility description of "Retail" was used to best represent the proposed Shop use.*
[d] *The standard BOS facility description of "Banquet" was used to best represent the proposed Event Space use.*
[e] *The standard BOS facility description of "Museum: Office" was used to best represent the proposed Office use.*
Source: KPFF, Lucas Museum of Narrative Art, Utility Infrastructure Technical Report: Water, Wastewater, and Energy, March 17, 2017.

need for an additional solid waste collection route. Pursuant to Sections 66.32–66.32.5 of the Los Angeles Municipal Code (Ordinance No. 181,519), the Modified Project's construction contractor would be required to deliver construction and demolition waste generated by the Project to a Certified Construction and Demolition Waste Processing Facility for processing and recycling. Thus, the amount of demolition and construction waste generated by the Modified Project that would be disposed at the Azusa Land Reclamation Landfill, the County's only permitted inert waste landfill, would be significantly reduced. The total amount of construction and demolition waste generated by the Modified Project is anticipated to be only a fraction of the Azusa Land Reclamation Landfill's existing remaining disposal capacity of 57.56 million tons.[36] Therefore, construction impacts to solid waste facilities would be less than significant.

[36] *County of Los Angeles Department of Public Works, Countywide Integrated Waste Management Plan, 2015 Annual Report, December 2016.*

The Modified Project would comply with applicable regulations related to solid waste, including those pertaining to waste reduction and recycling. The Modified Project would not result in an increase in events, maximum seating or ancillary uses at the Coliseum. However, the Modified Project would develop a new museum use with approximately 299,717 square feet of floor area, which would increase the amount of solid waste generated on-site. The *L.A. CEQA Thresholds Guide* provides a solid waste generation factor of 10.53 pounds per employee per day to evaluate solid waste impacts. The number of employees per 1,000 square feet of proposed use is calculated based on employment generation factors provided by the Los Angeles Unified School District in Table 12 of the *2012 Developer Fee Justification Study* (February 9, 2012). Since museum uses are not included as a category in the *2012 Developer Fee Justification Study*, this analysis conservatively assumes a generation factor of 4.79 employees per 1,000 square feet for "Standard Commercial Office." Based on this conservative factor, the proposed 299,717 square feet of museum uses would result in approximately 1,436 employees, which equates to approximately 15,121 pounds (or approximately 7.6 tons) of solid waste per day that would be potentially generated by the Modified Project. Solid waste generated by the Modified Project would be recycled or collected by private waste haulers contracted by the Applicant and permitted by the City, and taken for disposal at one of the County's Class III landfills open to the City of Los Angeles.[37] According to the *Countywide Integrated Waste Management Plan 2015 Annual Report*, the estimated remaining capacity for the County's Class III landfills that are open to the Modified Project is approximately 101.53 million tons.[38] The approximately 7.6 tons of solid waste generated by the operation of LMNA would be a fraction of the remaining disposal capacity of these Class III landfills. Thus, potential impacts associated with solid waste would continue to be less than significant and such impacts would be within the envelope of impact set forth in the Certified EIR.

I. Traffic and Circulation

The analysis of the Modified Project's potential impacts associated with transportation and circulation is based on *Transportation Impact Study for the Lucas Museum of Narrative Art, Los Angeles, California* (Traffic Study), prepared by Gibson

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[37] *Private solid waste haulers hold individual contracts with landfill operators for the disposal of waste. Thus, it is unknown at this time which landfills would ultimately receive Project-generated waste. However, it is assumed that Project-generated waste would generally be disposed of at a Class III landfill open to the City of Los Angeles.*

[38] *Total excludes Class III landfills not open to the City of Los Angeles for disposal (i.e., Scholl Canyon, Burbank, Pebbly Beach, and San Clemente). Total excludes the Calabasas Landfill, as its wasteshed does not include the Project Site. See Appendix E-1 and Appendix E—2, Table 1 of the Countywide Integrated Waste Management Plan 2015 Annual Report.*

Transportation (March 2017) and included as Appendix G of this document. On March 30, 2017, the Department of Transportation issued a memorandum stating that the transportation study prepared by Gibson Transportation adequately evaluated the proposed project's traffic impacts on the surrounding community and that none of the study intersections would be significantly impacted by project-related traffic. The Traffic Study evaluates the potential for impacts caused by the Modified Project on the street system surrounding the Modified Project Site. Consistent with Transportation Impact Study Guidelines (LADOT, December 2016), the following traffic conditions were developed and analyzed within the Traffic Study:

- Existing Conditions (Year 2016)—The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Conditions (Year 2016) analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts were collected in January and September 2015, July 2016 (Saturday counts only), and September 2016 and represent existing conditions. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was collected in September 2016.

- Existing With Project Conditions (Year 2016)—This analysis condition projects the potential intersection operating conditions that could be expected if the Modified Project were completed and operational under existing conditions. This analysis evaluates the potential Modified Project-related traffic impacts as compared to Existing Conditions (Year 2016).

- Future Without Project Conditions (Year 2021)—This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by year 2021. The Future Without Project (Year 2021) traffic conditions are projected by adding ambient traffic growth and traffic from related projects to Existing Conditions (Year 2016). This analysis provides the conditions by which the Modified Project impacts are evaluated in the future at full buildout.

- Future with Project Conditions (Year 2021)—This analysis projects the potential intersection operating conditions that could be expected if the Modified Project were completed and operational in the projected buildout year. This analysis identifies the potential incremental impacts of the Modified Project at full buildout on projected future traffic operating conditions by adding the Modified Project-generated traffic to the Future Without Project (Year 2021) traffic forecasts.

(1) Traffic

(a) Construction

The Certified EIR did not include a construction traffic impact analysis. However, Second Addendum provided a construction traffic impact analysis for the Approved Project and determined that construction-related traffic impacts would be less than significant with implementation of a Construction Management Plan.

The following provides a summary of the construction traffic impacts for the Modified Project that is provided in the Traffic Study. The Modified Project is anticipated to be constructed over an approximately 42-month period between years 2017 and 2021. Typical construction activity would occur between 7:00 A.M. and 3:00 P.M. on weekdays and Saturdays. Under the Modified Project, peak haul truck activity would occur during excavation and peak worker activity would occur during building construction, though most days there would be far fewer workers than on the peak day. Thus, both these phases were evaluated.

(i) Excavation and Grading Phase

The peak period of truck activity during construction would occur during excavation of the Modified Project Site, which is anticipated to last approximately six months. Based on projections compiled for the Modified Project, a maximum of 275 haul truck trips would leave the site each day. Haul trucks would travel from to and from I-110 via Bill Robertson Lane and Exposition Boulevard, which is the most direct route to the freeway.

Haul activity would occur uniformly over an 8-hour haul day, resulting in approximately 34 hourly haul truck departures from the Modified Project Site. Similarly, there would be 34 hourly haul truck arrivals. Because construction trucks (such as earth-hauling trucks and cement trucks) are larger and slower than the passenger vehicles that make up the majority of the vehicles on the roads, they have an effect on traffic that is greater than a passenger vehicle's effect. The Transportation Research Circular No. 212 defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Assuming a PCE factor of 2.0, there would be a total of approximately 68 hourly arriving and 68 hourly departing PCE trips attributable to haul trucks between the hours of 7:00 A.M. to 3:00 P.M. Monday through Saturday. Haul truck trips would not affect the evening commuter peak hour but would occur during the weekday morning commuter peak hour and the Saturday midday peak hour.

During the excavation and grading phase, up to 40 workers would be on-site. Using an average vehicle occupancy (AVO) of 1.135 persons per vehicle as provided in *CEQA*

Air Quality Handbook (South Coast Air Quality Management District, 1993), 40 workers would result in a total of 35 vehicles that would arrive and depart from the Modified Project Site each day. As the hours of construction are expected to be from 7:00 A.M. to 3:00 P.M., workers would typically arrive on-site prior to the weekday morning commuter peak period and leave prior to the evening commuter peak period. On Saturdays, the workers would leave following the Saturday midday peak period. Therefore, construction worker trips would not affect peak-hour traffic conditions.

In total, peak haul activity would result in 68 hourly arriving and departing PCE trips traveling along the haul route identified above and affecting only the streets along the haul route. The number of trips generated by the Modified Project's haul activity would be substantially lower than the 163 inbound and 245 outbound trips identified for the Saturday midday peak hour during operation. In addition, each of the study intersections along the haul route identified above currently operates at LOS A during the Saturday midday peak hour. Based on a review of other recent traffic studies and available traffic data, each of those intersections operates at LOS C or better during the morning peak hour, and the addition of the Modified Project's haul trips would not trigger any of the City's significance thresholds for intersections. Therefore, no temporary significant traffic impact would occur during the excavation and grading phase as a result of haul truck and worker trips.

(ii) Building Construction Phase

According to construction projections prepared for the Modified Project, a maximum of approximately 400 workers could be on the construction site at one time during building construction. On most days during the 32-month building construction phase, far fewer workers would be on-site. Daily construction schedule would be from 7:00 A.M. to 3:00 P.M. Thus, construction workers would typically arrive before the weekday morning peak period and depart before the weekday evening peak period, and would not affect traffic conditions during the weekday commuter peaks. Similarly, construction workers would not affect the Saturday midday peak hour, which ends prior to 3:00 P.M. Therefore, construction worker traffic would not result in significant traffic impacts.

During building construction, there would be a maximum of approximately 170 delivery trucks (including concrete trucks) to and from the Modified Project Site per day. These trucks would typically arrive regularly throughout the day, resulting in approximately 21 trips in and out during each hour of the 8-hour workday, which is equivalent to 42 PCE trips each direction based on a PCE of 2.0 for concrete or delivery trucks. This is fewer truck trips than estimated during the peak haul truck activity, which as determined above, would not to result in temporary significant impacts. Therefore, peak worker activity also would not result in temporary significant impacts.

(iii) Potential Construction-Related Impacts Associated with Access, Transit and Parking

Most construction activities would be primarily contained within the Modified Project Site boundaries. However, it is expected that construction fences would encroach into the public right-of-way (e.g., sidewalk and roadways) adjacent to the Modified Project Site on Bill Robertson Lane in order to accommodate deliveries, haul trucks, concrete trucks, and other equipment.

Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction Management Plan. Bill Robertson Lane does not allow on-street parking, and is wide enough to accommodate construction encroachment without restricting traffic in the travel lanes. Therefore, travel lanes would be maintained in each direction throughout the construction period, and emergency access would not be impeded. The use of the public right-of-way on Bill Robertson Lane would require temporary rerouting of pedestrian traffic to the east side of the street, as the sidewalks fronting the Modified Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian safety along the affected sidewalks and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering). There is no public transit on Bill Robertson Lane and, therefore, transit operations would not be affected by construction activities.

During construction, Exposition Park would provide adequate parking to accommodate construction workers (likely in Lots 4 and/or 5, which are located directly south of the Coliseum) in addition to regular daily parking demand for museums, athletic facilities, etc. Parking structure construction would be scheduled so as to make the new parking available for major events as quickly as possible, prior to completion of building construction. In addition, the proposed parking structures could also accommodate construction workers once a Certificate of Occupancy has been issued. Nonetheless, to the extent that major events (e.g., football games at the Coliseum) occur prior to completion of replacement parking, the Parking Management Plan to be developed as a component of the Construction Management Plan would reduce the effects of the loss in parking.

Modified Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) would be incorporated into the Construction Management Plan. The construction-related impacts associated with access and transit are anticipated to be less than significant, and the implementation of the

Construction Management Plan set forth in Mitigation Measure 8, below, would further reduce those impacts.

(b) Operation

(i) Intersections

The Certified EIR and addenda evaluated a total of 26 intersections under weekend pre-event conditions, weekend post-event conditions, and week-day pre-event conditions. Impacts were identified using City of Los Angeles Department of Transportation's (LADOT) significant impact criteria based on the difference between non-event conditions and event conditions, as if Coliseum events were new to the area. This resulted in a very conservative analysis, since Coliseum events were already occurring and, with the Approved Project, the maximum capacity of those events would be reduced due to the seating reduction. The weekend analysis was based entirely on traffic counts conducted on Saturday, November 30, 2002 during a USC football game with 87,944 fans in attendance. The "without Project" condition was identified based on the lowest hourly total volume between 2:00 P.M. and 5:00 P.M. at each intersection. The "pre-event peak hour" was identified based on the highest hourly total volume between 2:00 P.M. and 5:00 P.M. and the "post-event" peak hour was the hour between 8:30 P.M. and 9:30 P.M. Impacts were identified based on the difference between the "without Project" condition and the pre-event and post-event peak-hour conditions.

The weekday analysis was conducted based on projected traffic volumes for the pre-event peak hour assuming a 78,000-person stadium event. These event traffic projections were added to weekday traffic counts conducted in April 2003. The 2003 EIR identified the following significant intersection impacts for the three event conditions:

- 8 intersection impacts during the weekend pre-event peak hour
- 6 intersection impacts during the weekend post-event peak hour
- 23 intersection impacts during the weekday pre-event peak hour

The Certified EIR included seven mitigation measures to address traffic impacts, which are listed further below. As these measures were already in place, the Certified EIR concluded that traffic impacts would be significant and unavoidable.

The LMNA (the only trip generating component of the Modified Project) would be ancillary to Coliseum facilities, and although it would host events from time to time, the patronage of these events would be a fraction the size of events hosted at the Coliseum. On a typical day without a major event in Exposition Park, the LMNA would generate traffic

commensurate with a typical museum, as documented in Chapter 6 of the Traffic Study. It is anticipated that the LMNA would experience a decrease in exclusive patronage (that is, visitors solely attending the LMNA) on days when major events occur in Exposition Park, since traffic congestion during those events can deter local visitors who have the option to come at any time.

The Traffic Study for the Modified Project is ancillary to the analysis conducted for the Approved Project, as the Modified Project does not substantively modify the major event conditions analyzed for the Approved Project. Thus, the Traffic Study includes a fully updated analysis of existing and future baseline traffic conditions for the Study Area developed for the Modified Project, which is defined in the Traffic Study as a geographic area approximately 1.0 mile (north-south) by approximately 1.2 miles (east-west) that is generally bounded by Jefferson Boulevard to the north, I-110 to the east, Martin Luther King Jr. Boulevard to the south, and Normandie Avenue to the west. The Study Area includes the 20 signalized intersections listed in Table 1 and shown in Figure 2 of the Traffic Study. The potential Modified Project-generated trips are added to the existing and future baseline traffic conditions to evaluate potential intersection impacts under existing conditions and projected future conditions in year 2021 (buildout year) as a result of the Modified Project. Potential intersection impacts were evaluated for typical weekday evening (3:00 P.M. to 6:00 P.M.) and Saturday midday (11:00 A.M. to 3:00 P.M.) peak periods. The typical weekday morning (7:00 A.M. to 10:00 A.M.) peak period was not evaluated since LMNA would not be open prior to 10:00 A.M.

Existing Conditions (Year 2016)

Intersection turning movement counts were conducted at the 20 study intersections during the weekday evening (3:00 P.M. to 6:00 P.M.) and Saturday midday (11:00 A.M. to 3:00 P.M.) peak periods. As shown in Table 5 of the Traffic Study, under Existing Conditions (Year 2016), all 20 study intersections operate at LOS D or better during both the weekday evening and Saturday midday peak hours.

Future Without Project Conditions (Year 2021)

As discussed in detail in the Traffic Study, the existing traffic volumes were factored by an annual ambient growth rate to approximate regional growth and development. In addition to the ambient growth, for purposes of providing a conservative analysis of potential cumulative traffic impacts, the traffic generated by proposed, approved, and under construction projects in and around the Study Area was also added to estimate the Future Without Project (Year 2021) traffic conditions. The future conditions analysis includes proposed modification of Figueroa Street within the Study Area identified in the MyFigueroa Streetscape Project, and the narrowing of Jefferson Boulevard proposed in the Jefferson Boulevard Streetscape Plan. Since the proposed infrastructure improvements contained in

Mobility Plan 2035 and the 2010 Bicycle Plan would not be implemented by year 2021, these improvements were not assumed in the future conditions analysis.

As summarized in Table 7 of the Traffic Study, 19 of the 20 study intersections are projected to operate at LOS D or better during both the weekday evening and Saturday midday peak hours under Future Without Project Conditions (Year 2021). Intersection No. 14, Figueroa Street & Martin Luther King Jr. Boulevard, is projected to operate at LOS F during the weekday evening peak hour.

Existing With Project Conditions (2016)

Trip generation estimates for the Modified Project are based on the expected attendance level during a Design Day, which represents a 90th percentile attendance day. According to the Traffic Study, it is estimated that LMNA will attract approximately 1.2 million visitors per year. The 90th percentile attendance day is estimated to be approximately 0.53 percent of the annual attendance. Thus, the Design Day attendance for LMNA is approximately 6,400 visitors, which is applicable to both weekdays and Saturdays. Based on an assumption of 6,400 daily visitors, as well as the travel mode splits and hourly arrival and departure pattern assumptions detailed in Chapter 6 of the Traffic Study, the Modified Project is expected to generate a net total of 245 new weekday evening peak-hour trips (82 inbound, 163 outbound) and 408 new Saturday midday peak-hour trips (163 inbound, 245 outbound). The 245 new weekday evening peak-hour trips and 408 new Saturday midday peak-hour trips generated by the Modified Project, as well as the redistributed trips from 39th Street, were added to the existing weekday evening and Saturday midday peak-hour traffic volumes to determine the potential intersection impacts as a result of the Modified Project. As shown in Table 11 of the Traffic Study, all study intersections would continue to operate at LOS D or better during the weekday evening and Saturday midday peak hours with the addition of traffic volumes generated by the Modified Project. In addition, none of the study intersections would be significantly impacted by the Modified Project under the Existing With Project Conditions (Year 2016), and therefore no mitigation measures are required.

Future With Project Conditions (Year 2021)

The weekday evening and Saturday midday peak-hour traffic volumes generated by the Modified Project were added to the Future Without Project (Year 2021) peak-hour traffic volumes. The 39th Street redistribution volumes, were also added in after increasing them by 5.10 percent to account for ambient traffic growth. The resulting volumes represent Future With Project Conditions (Year 2021) after development of the Modified Project. Table 12 of the Traffic Study summarizes the results of the Future with Project Conditions during the weekday evening and Saturday midday peak hours for the 20 study intersections. As shown, 19 of the 20 study intersections would continue to operate at LOS

D or better during the weekday evening and Saturday midday peak hours under Future With Project Conditions (Year 2021). The addition of traffic generated by the Modified Project to these intersections would not result in a change to the volume-to-capacity (V/C) ratio that would exceed the significance thresholds. Intersection No. 14, Figueroa Street & Martin Luther King Jr. Boulevard, is forecast to operate at LOS F during the weekday evening peak hour; however, as previously discussed, Intersection No. 14 is projected to operate at LOS F during the weekday evening peak hour under Future Without Project Conditions (Year 2021). The addition of traffic generated by the Modified Project to Intersection No. 14 under Future With Project Conditions (Year 2021) would not result in a change to the V/C ratio that would exceed the significance thresholds. Thus, none of the study intersections would be significantly impacted by Modified Project under the Future With Project Conditions and no mitigation measures are required.

(ii) Caltrans Facilities

An analysis of Caltrans facilities was included in the Traffic Study because the Modified Project met one or more of the screening thresholds identified in the *Agreement Between City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures* (Amended December 2015). Caltrans facilities, including three freeway mainline segments and the express lanes on I-110, six Caltrans intersections, five freeway off-ramps, and five freeway on-ramps were analyzed based on the methodology described in detail in Chapter 9 of the Traffic Study. The analysis considered the following three scenarios with and without the addition of the traffic generated by the Modified Project: Existing Conditions (Year 2016); Future Conditions (Year 2021); and Long Range Conditions (Year 2035).

As concluded in the Traffic Study, the Modified Project would not cause the LOS to worsen at any of the freeway mainline segments analyzed, and would have negligible effects on traffic density at each segment under all three scenarios. The Modified Project also would not cause the LOS to worsen at any intersection analyzed, and would have negligible effects on delay at each location under all three scenarios. The Modified Project's effect on queue lengths at off-ramps under all three scenarios would be negligible. Furthermore, the Modified Project would not substantially increase the on-ramp volumes at any location under any scenario analyzed. Therefore, the Modified Project would not result in a significant impact to Caltrans facilities and no mitigation measures are required.

(iii) Congestion Management Program

The Congestion Management Plan (CMP) does not identify any arterial monitoring intersections within the Study Area. The nearest arterial monitoring intersection is at Alameda Street and Washington Boulevard, nearly 3 miles east of the Modified Project. Thus traffic generated by the Modified Project would have a negligible effect on the

intersection. Therefore, because the Modified Project would not add 50 or more peak-hour trips to any arterial monitoring intersection, no further analysis was conducted in the Traffic Study.

According to the Certified EIR, the Approved Project would significantly impact two regional CMP freeways near the Project Site: the I-10 freeway at Budlong Avenue; and the I-110 freeway at Slauson Avenue. However, the Modified Project would add a maximum of 73 trips to I-110 in the northbound direction, including at the CMP freeway mainline monitoring location at Slauson Avenue, and would generate far fewer trips on the I-10 at Budlong Avenue freeway mainline monitoring location. Therefore, as the Modified Project would not add 150 trips to any segment in a single direction during a peak hour, no further analysis was conducted in the Traffic Study.

As discussed in Chapter 2 of the Traffic Study, the Study Area is served by numerous established transit routes. Based on Metro ridership data from March 2015 for the bus system and October 2016 for the rail system, there is capacity within the system to accommodate an additional 7,500 riders during the weekday evening peak hour and 3,363 riders during the Saturday midday peak hour. According to the Traffic Study, a total of 1,472 daily visitors to LMNA are expected to use public transit, which equates to approximately 221 transit riders during the weekday evening peak hour and approximately 368 transit riders during the Saturday midday peak hour. Even with potential growth in transit ridership by year 2021, the Modified Project's peak-hour transit ridership would be easily accommodated within the available capacity of the transit system. Therefore, the Modified Project is not anticipated to result in regional transit impacts.

(iv) Site Access

Vehicular access to LMNA would be provided via two full-access driveways on Bill Robertson Lane, one north and one south of 39th Street. Each of these driveways would lead to the Museum Parking Garage. The Replacement Parking Garage, which serves to replace the surface parking displaced by the Modified Project, would have three access points: two full-access driveways to Bill Robertson Lane and one driveway to Vermont Avenue at Leighton Avenue. The access point at Leighton Avenue would have a new traffic signal to safely permit left- and right-turns into and out of this driveway during events. Service access would also be provided on Bill Robertson Lane.

The Modified Project would include the vacation and regular closure of 39th Street between Vermont Avenue and Bill Robertson Lane, which is currently used for access to Exposition Park. With the closure, traffic would be redirected to Exposition Boulevard or Martin Luther King Jr. Boulevard to reach Bill Robertson Lane. However, 39th Street would be available for access to Exposition Park during major events at the Coliseum.

Pedestrian access to the Modified Project Site would be provided via existing sidewalks and proposed pedestrian plazas on the Modified Project Site. There is also a wide pedestrian parkway (approximately 60 feet in width) along the east edge of Vermont Avenue, between Vermont Avenue and the Modified Project. The open design on the ground level of LMNA would offer direct pedestrian access to and from this pedestrian parkway as well as to and from the rest of Exposition Park to the east.

Bicycle access to the Modified Project Site would be provided by a network of existing and proposed bicycle facilities on many of the streets within the Study Area, including those directly adjacent to the Modified Project. Bill Robertson Lane is designated for bicycle friendly street treatments, and bicycle lanes are proposed on Vermont Avenue, Exposition Boulevard, and Martin Luther King Jr. Boulevard.

Based on the *L.A. CEQA Thresholds Guide* procedures the analysis of impacts to access and circulation considers the operating conditions of the intersections nearest the primary access points. As previously discussed, 19 of the 20 study intersections are projected to operate at LOS D or better during both analyzed peak hours, under Future Without Project Conditions (Year 2021) and would continue to operate at LOS D or better during both analyzed peak hours under Future With Project Conditions (Year 2021). Intersection No. 14, Figueroa Street & Martin Luther King Jr. Boulevard, is forecast to operate at LOS F during the weekday evening peak hour without and with the addition of traffic generated by the Modified Project. However, this intersection is not adjacent to any of the access points identified above. In addition, all access points would be required to conform to City standards and would be designed to provide adequate sight distance, sidewalks, and/or pedestrian movement controls that would meet the City's requirements to protect pedestrian safety. Therefore, the Modified Project would not result in a significant access and circulation impact in the Study Area.

(v) Parking

As set forth in the Certified EIR, the Approved Project would not include major changes to the existing parking facilities at the Coliseum, Exposition Park, or the USC Campus. A total of 27 parking lots in the vicinity of the Project Site that were in regular use for Coliseum events at that time were identified. These included 10 parking lots within Exposition Park, a lot operated by the County of Los Angeles, a number of private parking lots, the Department of Motor Vehicles lot on the east side of the I-110 Freeway, and 8 lots and structures north of Exposition Park, including on USC's campus. Together, these lots provided a total of 19,820 parking spaces. Further, the Certified EIR anticipated the imminent construction of the structure immediately east of the Coliseum, which provides 2,210 parking spaces (of which 2,160 are available for Coliseum use). Thus, with the increase in parking and the reduction in stadium seating, parking impacts under the Approved Project would be less than significant.

Under the Modified Project, the three existing on-site surface parking lots, which provide a total of 1,691 spaces would be removed. The Modified Project would construct two subterranean parking structures with a total of up to 2,425 parking spaces, which equates to a net increase of 734 parking spaces within Exposition Park. Approximately 1,025 spaces would be provided in the two-level Museum Parking Garage beneath LMNA, which would serve the Modified Project and the adjacent Natural History Museum. The Replacement Parking Garage would provide up to 1,400 spaces in three subterranean levels. The Modified Project would also provide 30 short-term and 30 long-term bicycle parking spaces.

LAMC requires one space per 500 square feet of gross floor area for museum uses. As the Modified Project would include up to 299,717 square feet of floor area, a maximum of 599 parking spaces would be required. The LAMC also requires bicycle parking at a rate of one short-term and one long-term bicycle parking space for each 10,000 square feet of gross floor area. For the Modified Project, a total of up to 30 short-term and 30 long-term spaces would be required. Based on the number of vehicle parking spaces provided in the Museum Parking Garage and the Replacement Parking Garage, and the bicycle parking spaces provided on-site, the Modified Project would satisfy both the vehicular and bicycle parking requirements specified by LAMC. Therefore, the Modified Project would not result in significant impacts to parking.

(c) Mitigation Measures

Mitigation Measures 1 through 8, below, were included in the Certified EIR and addenda to reduce Approved Project impacts related to traffic. With the exception of Mitigation Measures 2, 4 and 6 that are not applicable to the Modified Project, these mitigation measures would continue to be implemented as part of the Modified Project.

1. To facilitate movement of vehicles, the LAPD and LADOT staff shall have the authority to implement turn restrictions, parking prohibitions, lane closures, barriers/cones, and flexible signage. There shall be a temporary command post available on the site to control and monitor traffic conditions. The area shall be split up into zones, with an engineer assigned to each zone. These engineers would have the authority to react to situations and change restrictions if necessary.

2. Electronic ticketing shall replace parking guards at problem area lots and traffic signs on adjacent Coliseum streets to minimize parking lot back-up. In addition, season and regular ticket holders could be issued speed passes and assigned parking at specific lots. **[Mitigation Measure not applicable to the Modified Project.]**

3. Real time radio alerts and broadcasts via Highway Advisory Radio (HAR) shall be located where LADOT deems appropriate.

4. In conjunction with the aforementioned measures, Changeable Message Signs (CMS) shall be used to direct vehicles from the freeways and surface streets to the Coliseum/USC parking lots. At least eight or more signs would be needed for results to be noticeable and coordinated. **[Mitigation Measure not applicable to the Modified Project.]**

5. Project implementation shall include the development of a carpool incentive system to reduce the number of overall vehicle trips.

6. Alternate parking sites located away from the Coliseum shall be made available, as well as transportation to and from these parking areas and the Coliseum. **[Mitigation Measure not applicable to the Modified Project.]**

7. Turn prohibitions shall remain in place on game days. Such prohibitions are changed both within and between game days based on the most current traffic conditions and to reflect current best practices based on the City's extensive experience implementing traffic control for Coliseum events.

8. Prior to the start of construction, a Construction Management Plan shall be prepared and submitted to the City for review and approval. The Construction Management Plan will formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate:

    - Provision of on-site parking for all construction workers.

    - Staging of all construction vehicles, equipment, and materials on the Project Site.

    - Scheduling of construction activities (worker schedules, haul truck traffic, and deliveries) to reduce the effect on traffic flow on surrounding arterial streets.

    - Scheduling of construction-related deliveries, haul trips, etc. so as to occur outside the commuter peak hours to the extent feasible.

    - Coordinate construction activities with LAFC construction to minimize traffic and other cumulative impacts.

V. Effects Not Found to Be Significant

A. Agricultural Resources

According to the Certified EIR and addenda, there have been no agricultural uses on the site since before 1921. Similar to the Approved Project, the Modified Project would not involve any changes to the use of the Coliseum, which would continue hosting the same type of events as it currently does. The Modified Project would construct a new building with approximately 299,717 square feet of museum and ancillary uses in an area that is currently used for vehicle parking. In addition, the Modified Project includes the relocation of a soccer field to an area currently used for surface parking. Thus, the Modified Project would not convert an agricultural use to a non-agricultural use, and would not impact potential future agricultural uses on the site. Therefore, similar to the Approved Project, the Modified Project would not impact agricultural resources.

B. Biological Resources

Under the Certified EIR, impacts to biological resources were concluded to be less than significant. The Modified Project is located within a highly urbanized area. The project site is developed with paved surface parking lots and a soccer field and does not contain any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife. In addition, the Modified Project would not result in the filling of a federally protected wetland and would not affect a wildlife corridor or native nursery site. Therefore, consistent with the conclusions in the Certified EIR for the Approved Project, no impacts to sensitive species, designated natural communities, wetlands, wildlife corridors or nursery sites, or habitat conservation plans would occur as a result of the Modified Project.

The City of Los Angeles Protected Tree Ordinance (Ordinance 177,404) regulates the relocation or removal of Southern California native oak trees (excluding scrub oak), California black walnut trees, Western sycamore trees, and California Bay trees of at least 4 inches in diameter at breast height. These tree species are defined as “protected” by the City of Los Angeles. Trees that have been planted as part of a tree planting program are exempt from this Ordinance and are not considered protected. The Ordinance prohibits, without a permit, the removal of any regulated protected tree, including “acts which inflict damage upon root systems or other parts of the tree...” and requires that all regulated protected trees that are removed be replaced on at least a 2:1 basis with trees that are of a protected variety. In addition, the Board of Public Works has a policy that requires replacement of street trees at a ratio of 4:1.

According to the *Exposition Park Tree Inventory & Evaluation* (Tree Report) prepared by Arborgate Consulting, Inc., included as Appendix H, there are no protected trees on the Modified Project site. The Tree Report inventoried 187 trees on-site and along 39th Street, Leighton Avenue, Bill Robertson Lane, Vermont Avenue, and Martin Luther King Jr. Boulevard. This inventory included the condition of each tree and recommendations for removal or retention. As part of the Modified Project, all trees on-site and along Leighton Avenue, 39th Street, Bill Robertson Lane, and Martin Luther King Jr. Boulevard noted in the inventory would be removed. The majority of the trees along Vermont Avenue are anticipated to remain. None of the trees designated for removal are of species that are protected under the City's Protected Tree Ordinance. However, the on-site trees would be replaced on a 1:1 basis. In addition, consistent with the Board of Public Works policy, the Modified Project would replace all street trees at a ratio of 4:1. The new street tree species would be drought-tolerant and/or of a climate-adapted nature and would primarily require moist to dry soil conditions. Thus, the planting of new street tree species would be selected to enhance the pedestrian environment, convey a distinctive high quality visual streetscape, and complement trees in the surrounding area. Based on the above, the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Although unlikely, trees on the Modified Project Site that are proposed for removal could potentially provide nesting sites for migratory birds. Construction activities under the Modified Project would be required to comply with the Migratory Bird Treaty Act and the California Department of Fish and Game Code. Specifically, in accordance with the Migratory Bird Treaty Act, tree removal activities would take place outside of the nesting season (February 15–August 15), to the extent feasible. If vegetation removal activities must occur during the nesting season, a biological monitor would be present during the removal activities to ensure that no active nests would be impacted. If active nests are found, a 200-foot buffer radius (500 feet for raptors) would be established until the fledglings have left the nest. Through compliance with this existing regulatory requirement, potential impacts to nesting raptors would be less than significant under the Modified Project.

Based on the analysis above, the Modified Project would not result in any new significant impacts with respect to biological resources. Therefore, similar to the Approved Project, the Modified Project would not have a significant impact on biological resources.

C. Hazard and Hazardous Materials

The following analysis is based, in part, on the following reports prepared by Converse Consultants, which are included as Appendix I of this Addendum:

- Phase I Environmental Site Assessment Report, Parking Lots 1 and 1A, Northeast Corner of Martin Luther King Jr. Boulevard & Vermont Avenue, Los Angeles, California, February 6, 2017

- Phase II Environmental Site Assessment Report, Parking Lot 1 Northeast Corner of West Martin Luther King Jr. Boulevard & South Vermont Avenue, Los Angeles, California, March 22, 2017

- Phase I Environmental Site Assessment Report, Los Angeles Coliseum, Sports Arena, and Parking Lots 2, 3, 4, 5, and 6, Los Angeles, California, January 24, 2012

- Phase II Environmental Site Assessment Report, Parking Lot 2 and 3 Located North and South of 39th Street/Exposition Park Drive Between Vermont Avenue and Bill Robertson Lane, Los Angeles, California, December 8, 2016

The Certified EIR concluded that the Approved Project would not result in impacts associated with hazards. The types of construction activities under the Modified Project would be similar to those under the Approved Project. During demolition and building construction, fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners could be used, handled, and stored on-site. All potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and would not include materials beyond what is generally used in typical construction activities, thereby reducing the risk of hazardous materials use. In addition, the Modified Project would comply with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials. Thus, there is limited potential for construction activities to expose people to a substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard in excess of regulatory standards. Furthermore, based on the results of the Phase I and II Environmental Site Assessments (ESA) for the Modified Project site, there are no significant quantities of hazardous substances on-site or evidence of hazardous environmental conditions.

Operation of the Modified Project would involve the limited use of potentially hazardous materials typical of those used in museum, retail, and restaurant operations, including cleaning agents, paints, pesticides, and other materials used for landscaping. With implementation of appropriate hazardous materials management at on-site and continued compliance with all applicable local, state, and federal laws and regulations relating to environmental protection and the management of hazardous materials, significant impacts associated with the use, storage, and management of hazardous materials during operation of the Project would not occur.

Based on the information contained in the Phase I ESAs, the Modified Project site is currently used as a soccer field (Lot 1A) and parking lots (Lots 1, 2, and 3). There are no recognized environmental conditions (REC) within the site. However, on-site and adjacent historical uses include auto-related businesses, a battery repair facility, dry cleansers, gas stations, manufacturing, and agricultural-related uses. These historical uses were considered potential environmental concerns; therefore, Phase II ESAs were conducted for the Modified Project to assess the extent to which the on-site soils may have been impacted by the historical uses and to determine the presence or absence of underground storage tanks (USTs). The Phase II ESAs concluded that no concentrations of volatile organic compounds (VOCs) were detected in any of the soil samples analyzed and that all reported levels of total petroleum hydrocarbons (TPH) were below the screening levels. With the exception of arsenic and lead, all of the reported metal concentrations were below their respective screening levels for residential land use. Of the soils samples that contained arsenic concentrations that exceeded the screening level for residential use, all but one are less than the level determined by the Department of Toxic Substances Control to be an average naturally occurring level for the region. The Phase II ESA for Lot 1 concluded that the source of arsenic may have been from a surficial application of a product for weed control. The soil samples that were reported to have lead concentrations that exceeded the screening levels for residential land use had concentrations that are less than the screening levels for commercial/industrial land use such as the Modified Project. In addition, according to the Phase II ESAs, all concentrations of VOCs detected in the soil vapor samples were below the calculated soil-vapor screening levels for future residential and commercial land uses. Furthermore the geophysical survey conducted did not reveal the presence of any suspected USTs. Based on these results, the Phase II ESAs concluded that the historical on-site and off-site uses have not significantly impacted the Modified Project site. Therefore, similar to the Approved Project, the Modified Project would not have a significant impact to hazards and hazardous materials.

D. Hydrology and Water Quality

The Certified EIR included a discussion of several environmental topics, including hydrology and water quality, that were not found to be significant and thus, were not discussed in detail in the Certified EIR. The Second Addendum to the Certified EIR did provide an analysis of potential impacts associated with hydrology and water quality. That analysis concluded that the Approved Project's impacts associated with hydrology, water quality, and groundwater would be less than significant

The following analysis for the Modified Project is based, in part, on the *Lucas Museum of Narrative Art Water Resources Technical Report* (Water Resources Technical Report) prepared for the Project by KPFF Consulting Engineers, dated March 10, 2017. This report is included as Appendix J of this Addendum.

The types of construction activities under the Modified Project would be similar to those under the Approved Project. However, the Modified Project would have a depth of excavation of approximately 30 feet compared to the Approved Project's depth of excavation of 40 feet. As the Modified Project site would be greater than 1 acre in size, coverage under the NPDES General Construction stormwater permit would be required. Compliance with this permit would require the implementation of a stormwater pollution prevention plan (SWPPP) that specifies Best Management Practices (BMPs) and erosion control measures to be used during construction to manage runoff flow and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction by containing and treating stormwater or construction watering. Furthermore, the Modified Project would be required to comply with all applicable City grading and permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion. Therefore, the Modified Project would not substantially alter the drainage patterns in such a manner that would result in substantial erosion, siltation, or flooding. Furthermore, the Modified Project would not result in discharge that would violate any water quality or waste discharge standards, or otherwise substantially degrade water quality. As such, construction-related impacts to surface water hydrology and surface water quality would be less than significant.

As noted in the Water Resources Technical Report, previous boring explorations immediately west of the Modified Project Site did not encounter groundwater to a depth of 70 feet below grade. An additional investigation conducted 0.25 mile east of the Modified Project Site did not encounter groundwater to a depth of 130 feet below grade. As noted above, the Modified Project would have a depth of excavation of approximately 30 feet below ground surface. Therefore, construction activities are unlikely to encounter groundwater due to the limited depth of excavation associated with the Modified Project and dewater operations are not expected. However, construction activities could increase the opportunity for hazardous materials such as fuels, paints, solvents, and concrete additives to be released into the groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous wastes would reduce the potential for hazardous materials to contaminate groundwater during construction of the Modified Project. Therefore, construction related impacts to groundwater hydrology and water quality would be less than significant.

The area proposed for construction of the LMNA is currently nearly 100 percent impervious With the exception of Jesse Brewer Jr. Park, the open space area that would be improved within Exposition Park, and the southern portion of the relocated soccer field, the portions of the site that would contain landscaping and pervious groundcover would be located above a subterranean parking structure. Thus, new drainage systems would be implemented to collect stormwater runoff from the landscape areas. According to the Water Resources Technical Report, the existing peak flow rate for a 50-year storm event is

approximately 28.6 cubic feet per second (cfs). Post-development, the peak flow rate for a 50-year storm event would remain at 28.6 cfs, indicating that there would be no increase in stormwater runoff. Thus, the Modified Project would not increase the rate or volume of stormwater runoff into the existing storm drain system during operation. The Modified Project would be required to implement a Standard Urban Stormwater Mitigation Plan (SUSMP) and comply with the Low Impact Development (LID) ordinance, which requires BMPs to capture and treat a portion of the stormwater volume. The site currently does not have structural BMPs for the treatment of stormwater runoff from the existing impervious surfaces. Therefore, the implementation of BMPs proposed by the Modified Project would result in a substantial improvement in surface water quality runoff from the site during operation. As such, operational impacts to surface water hydrology and surface water quality would be less than significant.

The Modified Project would not result in the infiltration of stormwater that could impact groundwater levels or flows. In addition, the Modified Project would not include the installation or operation of water wells, which could result in a net deficit of aquifer volume or lower the groundwater table. Operational activities that could impact ground water quality include spills of hazardous materials and leaking underground storage tanks. The Modified Project would not include the installation of underground storage tanks, and there are no known underground storage tanks in the vicinity of the site. Furthermore, the Modified Project would comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for contamination. Therefore, operational impacts to groundwater hydrology and groundwater quality would be less than significant.

The Modified Project Site is not located within a 100-year flood plain or within an area that could be impacted by a seiche, tsunami, or mudflow. Therefore impacts related to those potential issues would be less than significant.

Based on the above, as with the Approved Project, potential impacts associated with hydrology, groundwater, and water quality would be less than significant under the Modified Project.

E. Mineral Resources

According to the Certified EIR and addenda, the site area does not include land containing significant mineral deposits. Additionally, the site area does not contain potential petroleum resources. Thus, similar to the Approved Project, the Modified Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resource

recovery site. Therefore, as with the Approved Project, the Modified Project would have no impact on mineral resources.

F. Population and Housing

No residential properties are located on the Modified Project site and none were planned as part of the Approved Project. The Modified Project would not include the construction of residential uses on-site. Thus, the Modified Project would not result in a permanent population increase nor would it displace any existing housing in the area. In addition, the Modified Project Site is adjacent the Metro Expo Line and the site is also well-served by 13 bus lines operated by Metro and the LADOT Downtown Area Shuttle. Given the proximity to an abundance of public transit options and the types of employment that would be created, it is anticipated that the majority of Modified Project employees would come from the existing labor pool and would not relocate as a result of working at the Project. Thus, any indirect increase in population resulting from employees that would relocate to the vicinity would be limited. Therefore, similar to the Approved Project, the Modified Project would have no impact on population and housing.

G. Schools

The Modified Project is located within the boundaries of the Los Angeles Unified School District (LAUSD). While the Modified Project would not generate residents, the additional employment generated by the Modified Project would have the potential to generate new students that may attend LAUSD schools. However, as discussed above, the Modified Project Site is adjacent the Metro Expo Line and the site is also well-served by 13 bus lines operated by Metro and the LADOT Downtown Area Shuttle. Given the proximity to an abundance of public transit options and the types of employment that would be created, it is anticipated that the majority of Modified Project employees would come from the existing labor pool and would not relocate as a result of working at the Project. Thus, the potential for actual student generation is anticipated to be limited. Moreover, any increase in LAUSD enrollment that may occur under the Modified Project would be dispersed across many LAUSD schools, as school attendance is primarily a function of an employee's location of residence rather than his or her place of work, and Modified Project employees are anticipated to live in many different areas within LAUSD's jurisdiction. Pursuant Senate Bill 50, the Applicant would be required to pay school fees prior to the issuance of building permits to offset costs associated with school facilities made necessary by new construction. Pursuant to Government Code Section 65995, the payment of these fees by the Applicant serves to fully mitigate all potential project impacts on school facilities from implementation of a project to a less-than-significant level. Through compliance with this regulatory requirement, the Modified Project's potential impacts with regard to school facilities would be less than significant and no mitigation

measures are required. Furthermore, during construction, the Modified Project would implement a Construction Management Plan, subject to LADOT approval, which would establish proposed haul routes and staging areas for the transportation of materials and equipment with consideration for sensitive uses in the neighborhood, including schools. Therefore, the Modified Project would not result in any significant impacts to schools.

H. Parks and Recreation

The Modified Project would not generate residents; however, the additional employment generated by the Modified Project would have the potential to increase the use of parks and recreational facilities by on-site workers and employees during the construction and operation of the Modified Project. During construction of the Modified Project, the use of public parks and recreational facilities by construction workers would be expected to be limited, as construction workers are highly transient in their work locations and are more likely to utilize parks and recreational facilities near their places of residence. There is potential for construction workers to spend their lunch breaks at the parks and recreational facilities located in proximity to the site. However, any such use would be temporary and nominal and would not be anticipated to create an increased demand for parks and recreational facilities that could result in the need for new or physically altered facilities. The additional employment generated by the operation of the Modified Project would have the potential to generate an increased demand for parks and recreation facilities. However, this potential is anticipated to be limited because it is anticipated that the majority of Modified Project employees would come from the existing labor pool and would not relocate as a result of working at the site. In addition, the Modified Project includes expansive new open space areas for use by employees, visitors, and the community. Thus, the Modified Project would not create an increased demand for parks and recreational facilities that could result in the need for new or physically altered facilities. Therefore, operation of the Modified Project would not result in a substantial adverse impact to parks and recreational facilities, and impacts would be less than significant. No mitigation measures are required.

I. Libraries

Library services within the Project area are provided by the Los Angeles Public Library (LAPL). The closest library to the site is the Exposition Park–Dr. Mary McLeod Bethune Regional Library located at 3900 S. Western Avenue, approximately 1.2 miles west of the site. The residential population of a library's service area is the primary metric used by the LAPL for assessing the adequacy of library services and planning for future growth. Since the Modified Project would not develop residential uses, implementation of the Modified Project would not result in a direct increase in the number of residents within the service population of the Exposition Park–Dr. Mary McLeod Bethune Regional Library.

During construction of the Modified Project, it is unlikely that construction workers would utilize the libraries that serve the site on their way to/from work or during their lunch hours because lunch break times are typically not long enough (30 to 60 minutes) for construction workers to take advantage of library facilities, eat lunch, and return to work within the allotted time. Therefore, any increase in usage of the libraries by construction workers is anticipated to be negligible. While new employment at the LMNA would have the potential to generate an indirect demand for library services, this potential demand is anticipated to be limited because it is anticipated that the majority of Modified Project employees would come from the existing labor pool and would not relocate as a result of working at the LMNA. Although employees could spend their lunch breaks at nearby libraries or visit them after work, any such use would be for limited periods and would not be anticipated to create an increased demand for libraries that could result in the need for new or physically altered facilities. As such, the Modified Project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered LAPL facilities, and impacts would be less than significant. No mitigation measures are required.

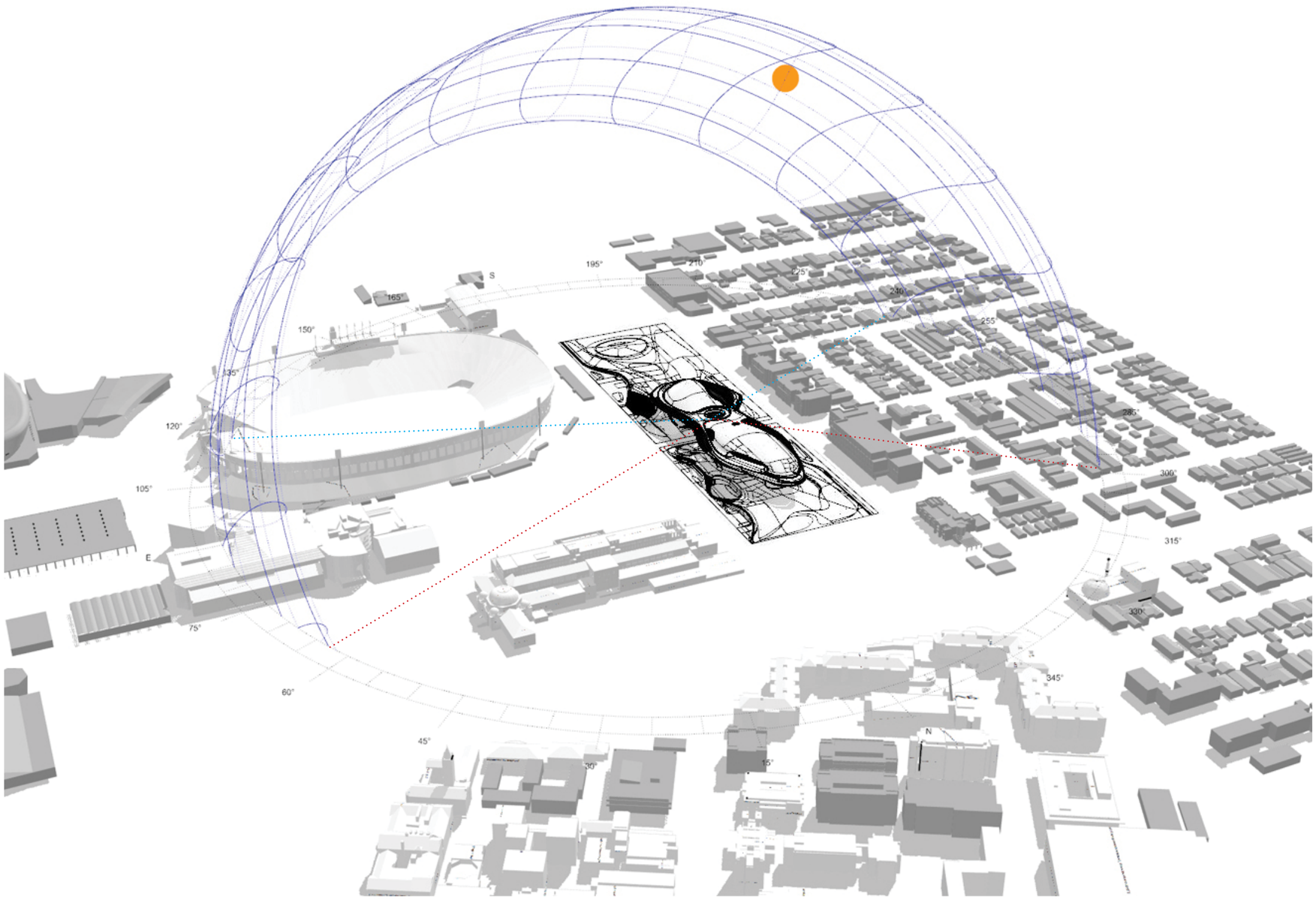
Appendices

Appendix A

Shading Study

SITE SHADOW STUDY

PROJECT SITE SUN PATH

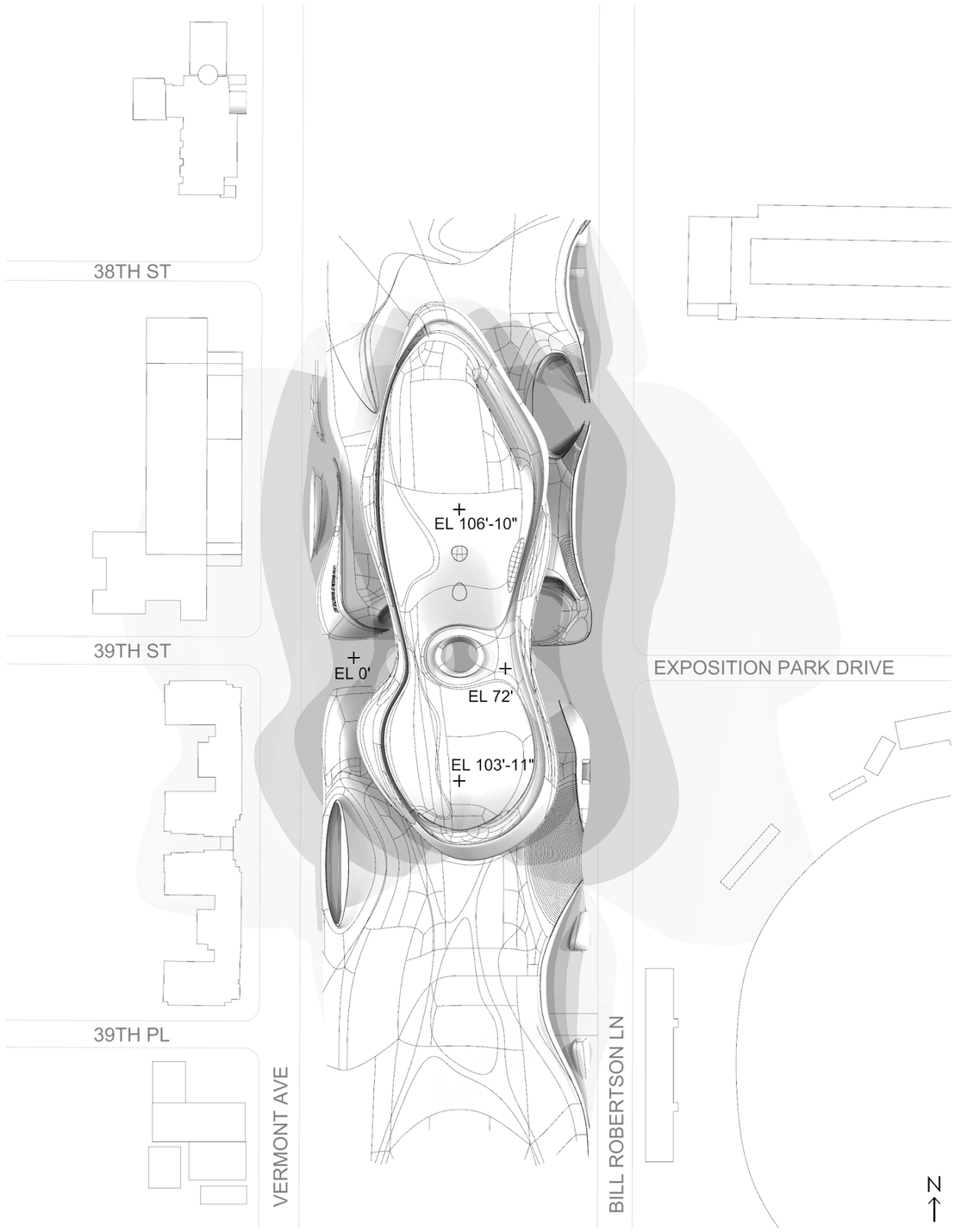


ANNUAL SUN PATH DIAGRAM AND SOLAR ANALYSIS 3D MODEL

SITE SHADOW STUDY

SUMMER SOLSTICE - JUNE 21

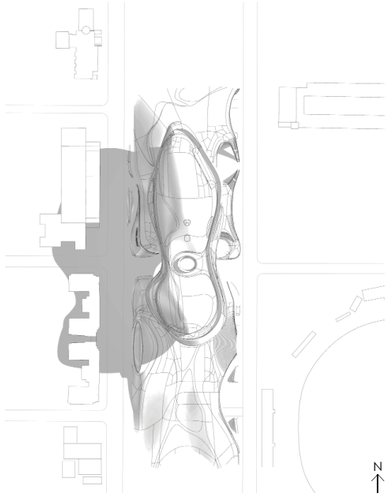
SHADOWS 6AM-6PM
SUMMER SOLSTICE



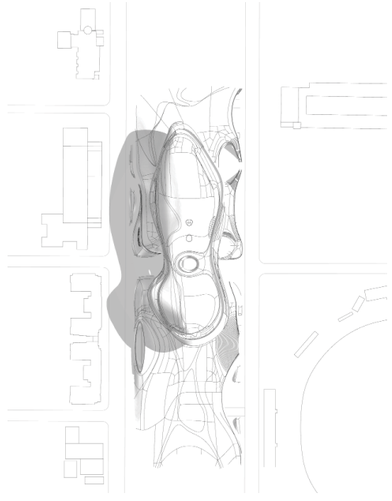
SITE SHADOW STUDY

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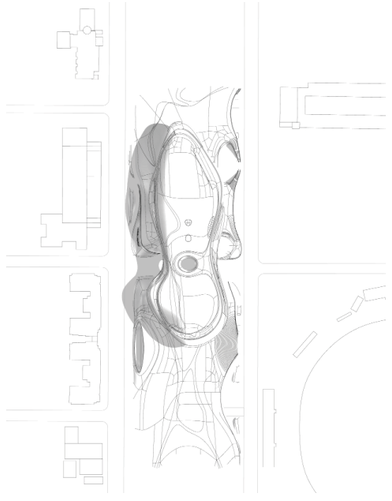
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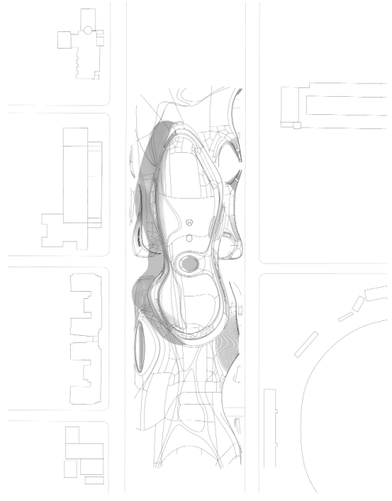
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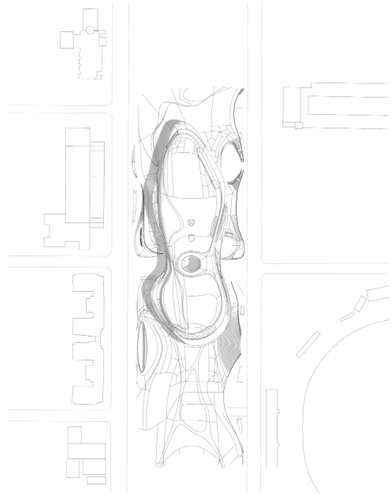
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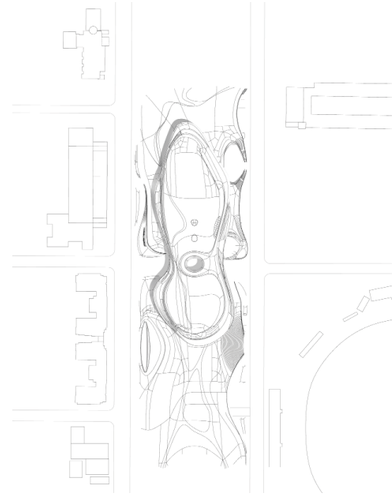
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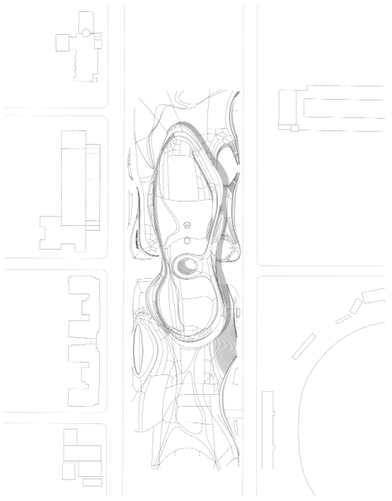
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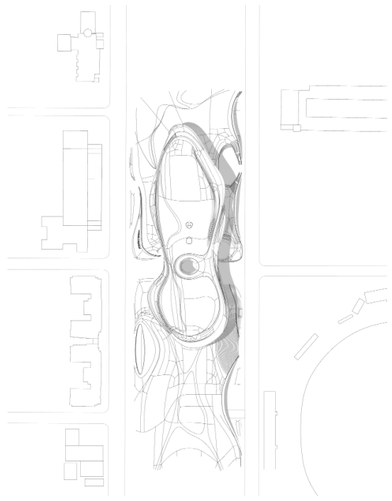
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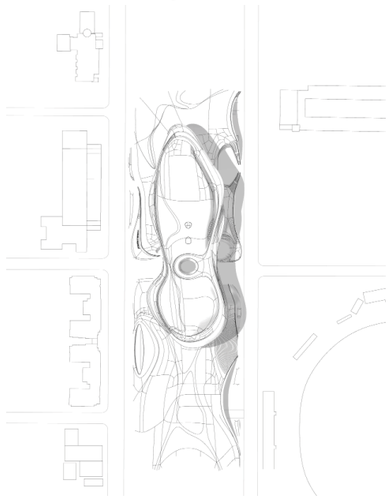
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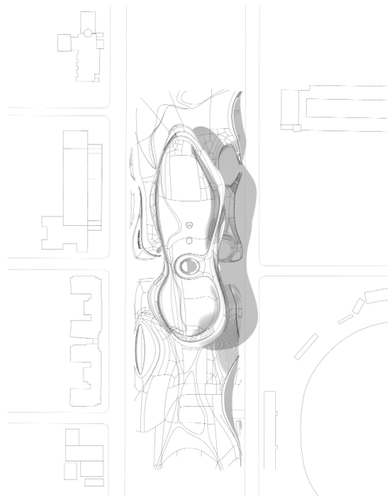
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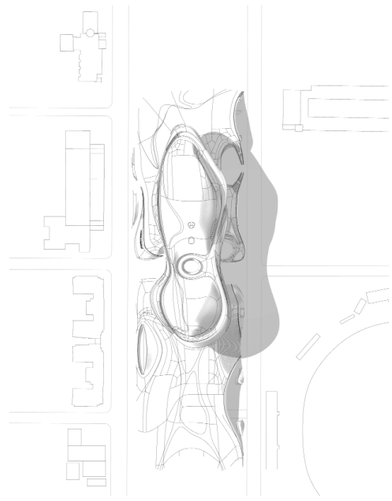
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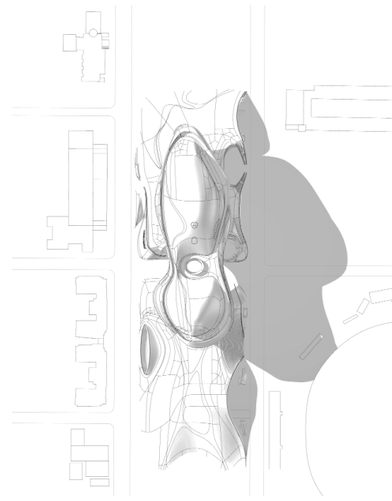
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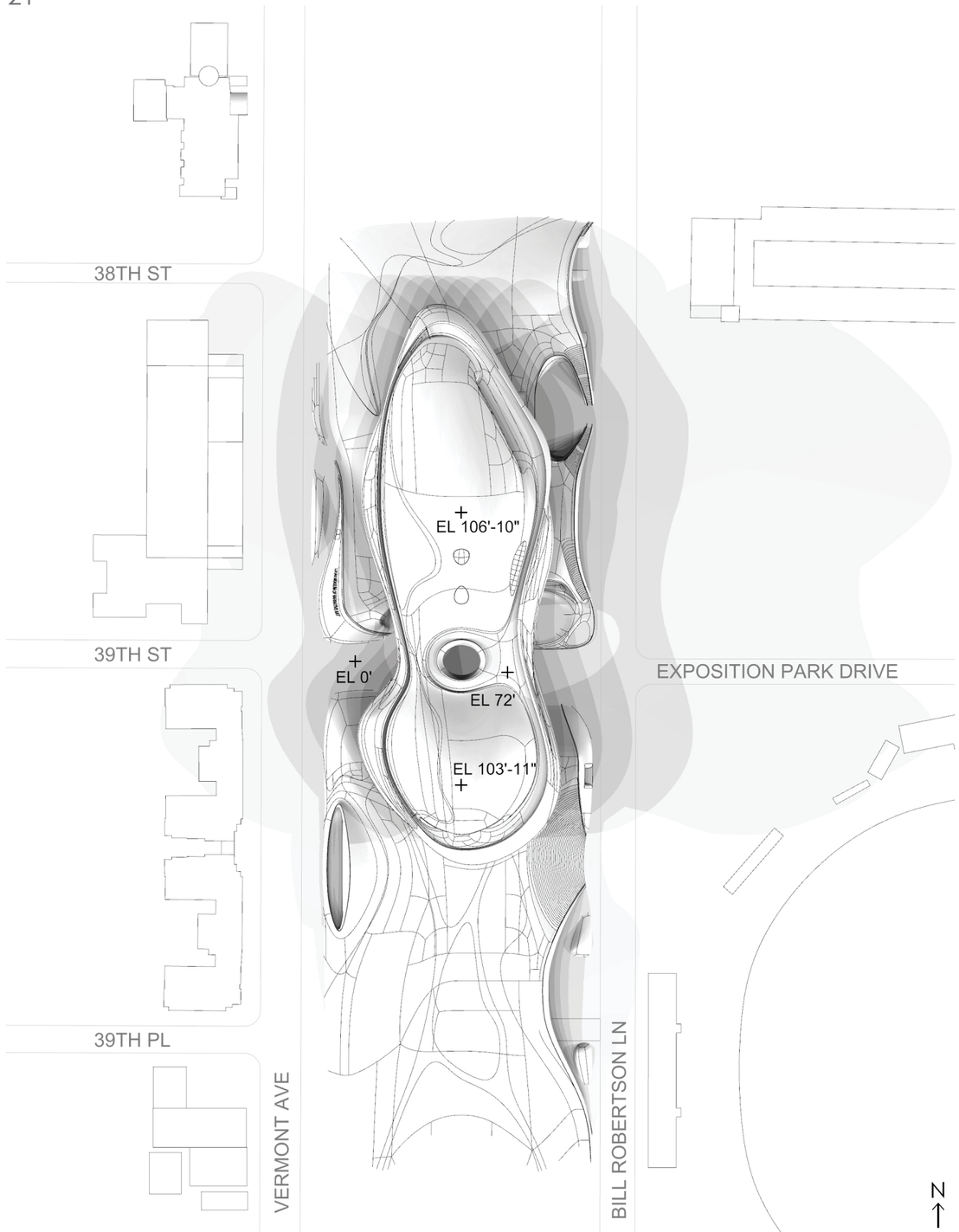
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SITE SHADOW STUDY

SPRING/FALL EQUINOX - MARCH/SEPTEMBER 21

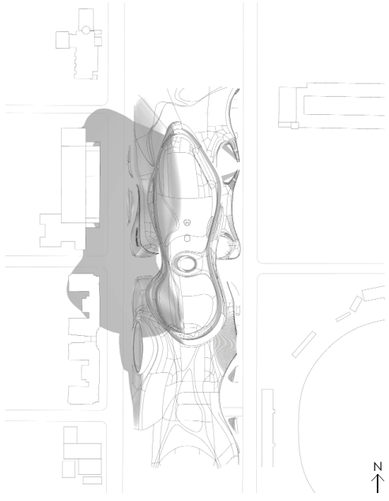
SHADOWS 7AM-5PM
SPRING/FALL EQUINOX



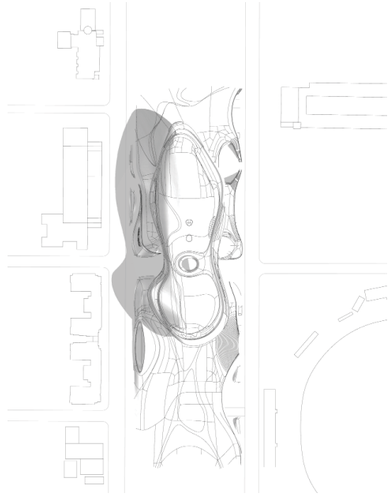
SITE SHADOW STUDY

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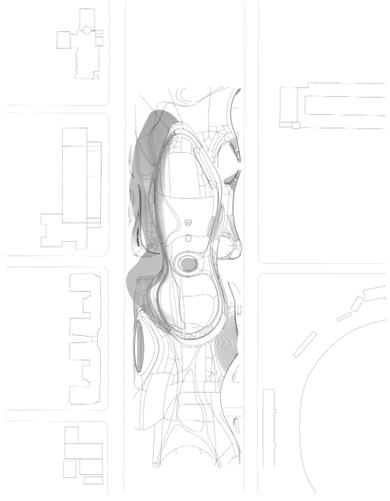
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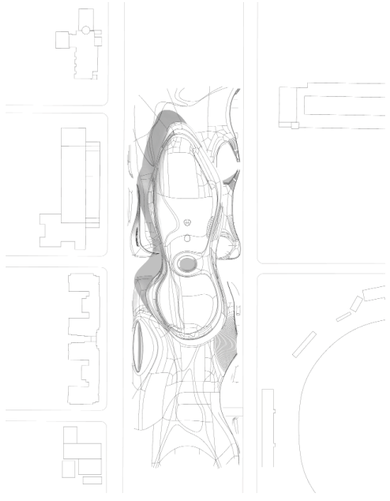
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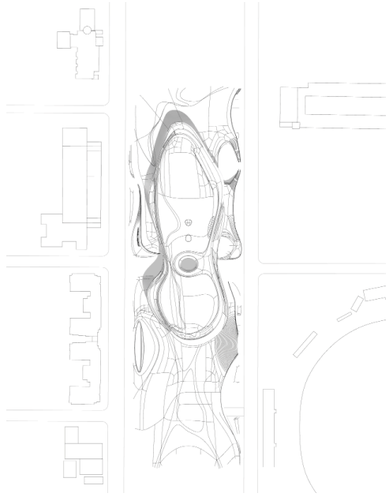
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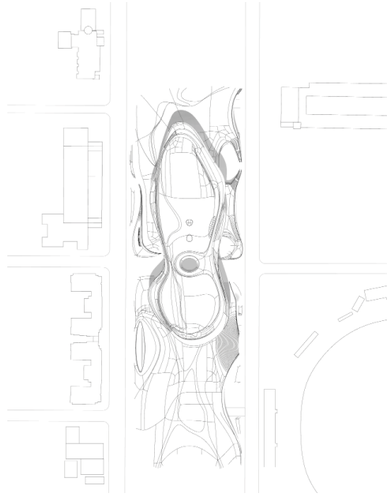
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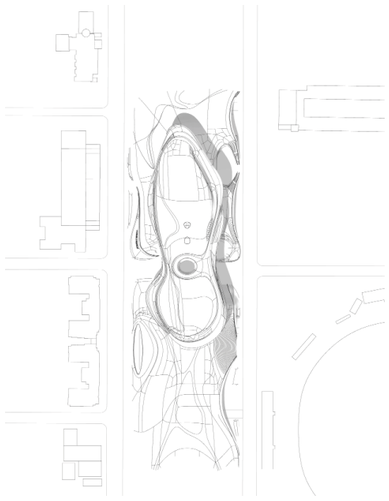
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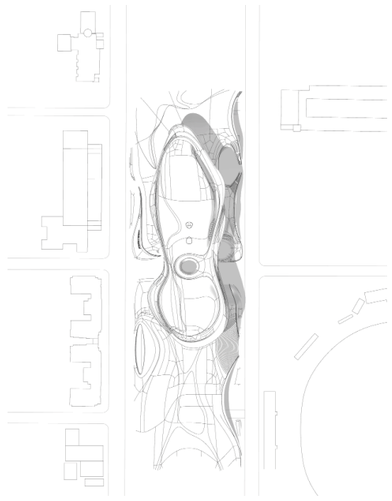
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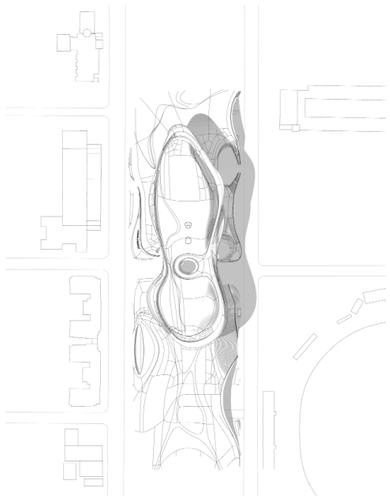
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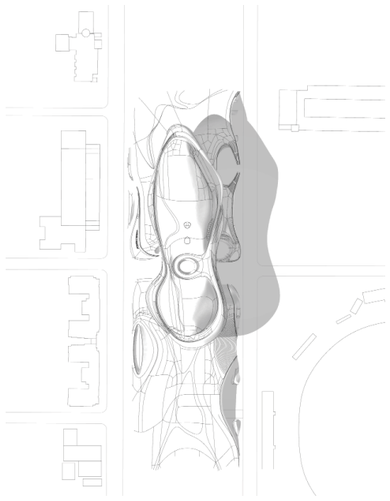
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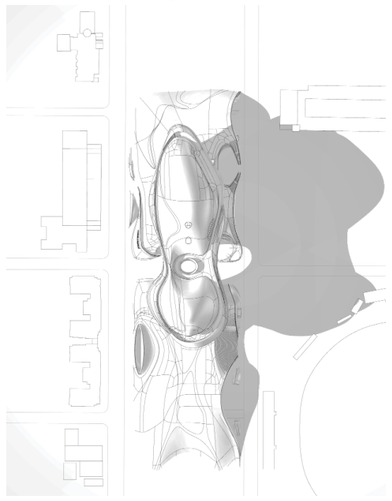
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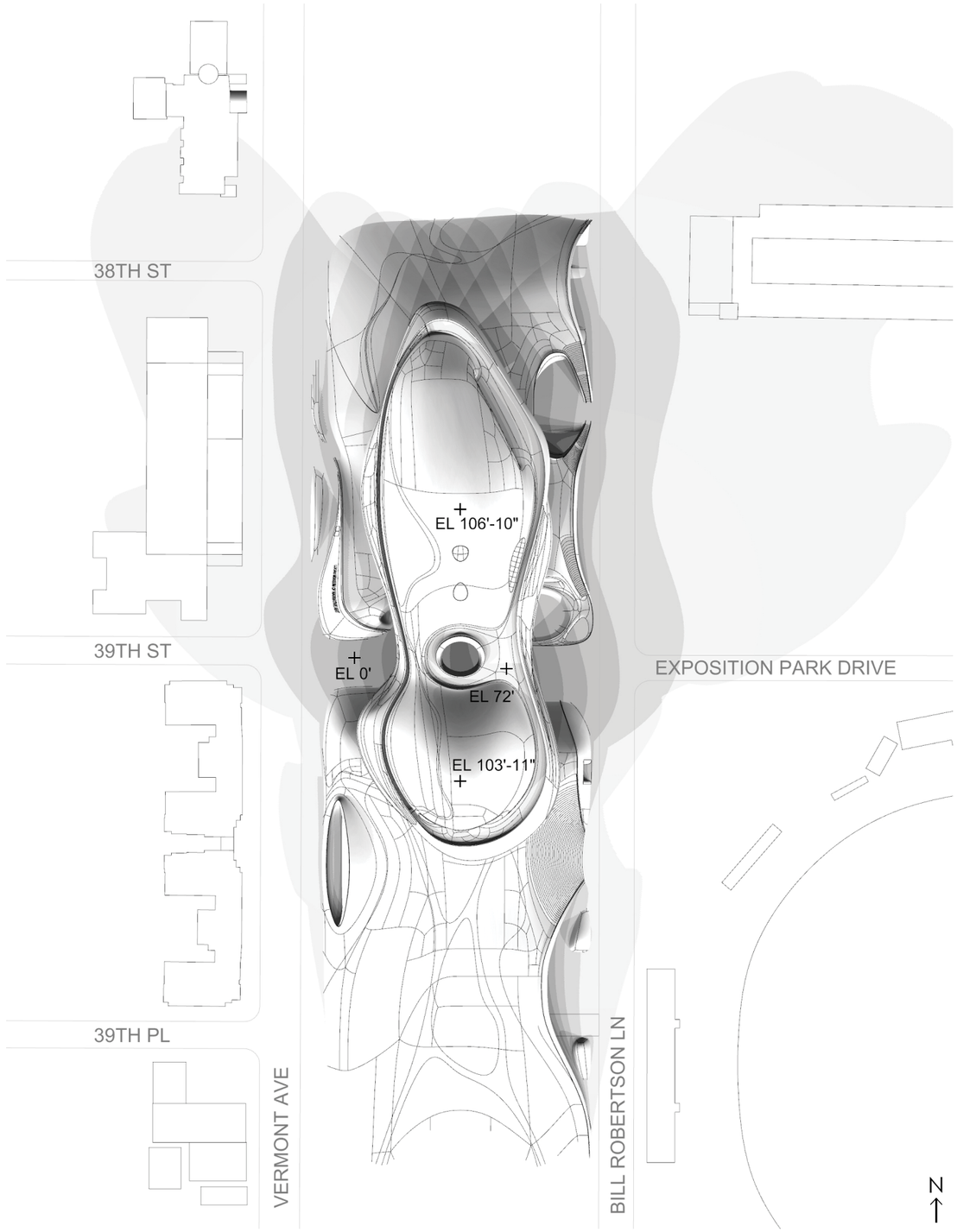
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SITE SHADOW STUDY

WINTER SOLSTICE - DECEMBER 21

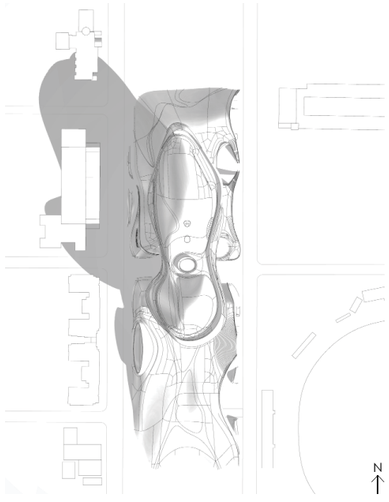
SHADOWS 8AM-4PM
WINTER SOLSTICE



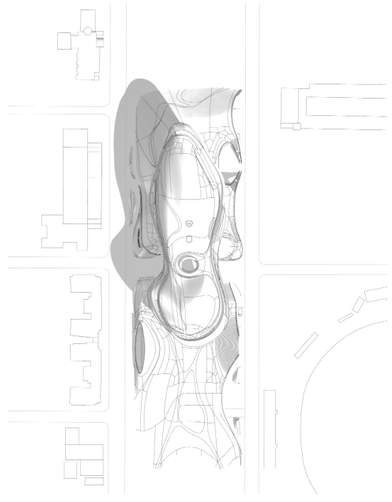
SITE SHADOW STUDY

WINTER SOLSTICE - DECEMBER 21

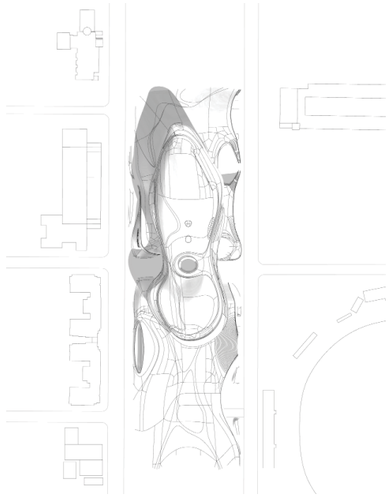
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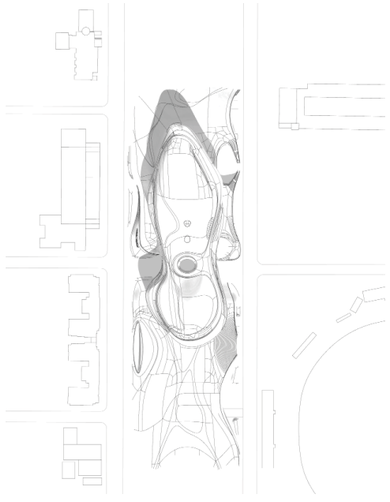
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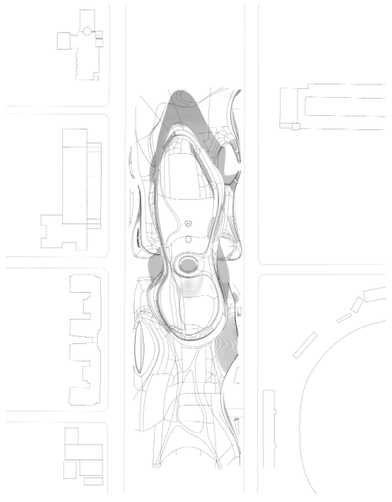
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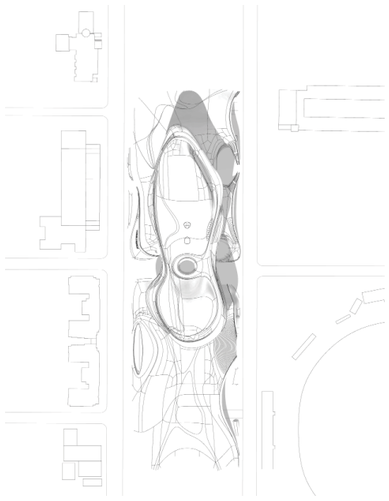
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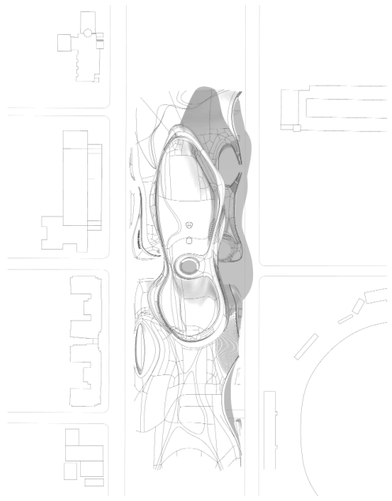
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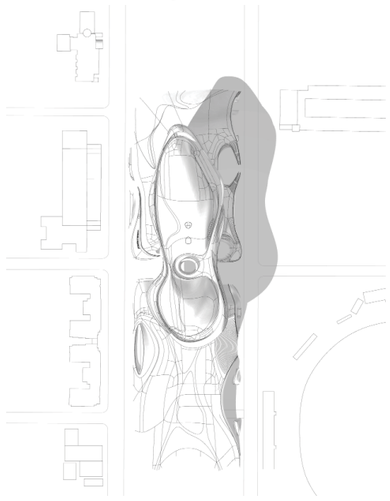
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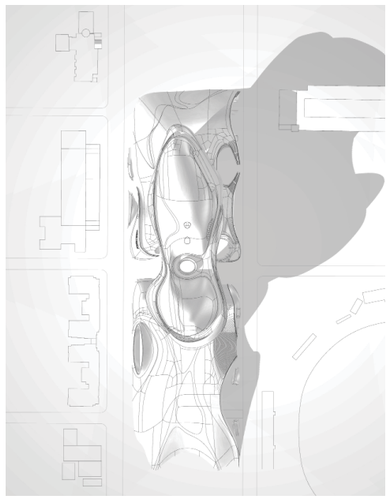
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Appendix B

Air Quality and Greenhouse Gas Worksheets

USC-Lucas Museum

Air Quality Analysis Assumptions Museum + Museum Garage

					Max Daily Truck Hauls (Vehcile Type) (Double for in/out)							
Construction Details	**Start Date**	**End Date**	**Duration (Months)**	**Days**	**I-III (Worker)**	**IV (Deliveries)**	**V-VI (Deliveries)**	**VII (Concrete)**	**VIII (Demo/Import/ Export)**	**Total Hauls**	**Workers**	**Worker Trips**
Total Construction	1/1/18	6/7/21	42	895								
Demolition (Entire Site)	1/1/18	1/24/18	1	17	41	12			50	**103**	29	153
Grading (Entire Site)	1/25/18	6/15/18	5	101	43	16	7	-	240	**306**	36	176
Grading/Foundation Overlap	6/18/18	10/26/2018	5	93	43	16		60	175	**294**	36	176
Foundation/Building Construction	10/27/18	11/26/18	1	22	43	16		186	---	**245**	140	436
Building Construction (To Substantial Completion)	11/27/18	4/27/21	29	630	43	16		186	---	**245**	200	586
Paving/Landscape	4/28/21	6/7/21	2	29	35	13			200	**248**	41	171

Demolition Quantities	
Building Square Footage (SF)	-
Parking (Acres)	8.9
Demo Debris (Tons)	14,054
Import/Export Quantities during Grading	
Import (Rock Base and Fill over Top Lid)	101,210
Export	605,747

Equipment						
	Demo	**Grading/ Excavation**	**Grading/Foundation Overlap**	**Foundation/Building Construction Overlap**	**Building Construction**	**Paving/ Landscape**
Air Compressor	2	2	2	3	3	2
Aerial Lift	-	-	-		-	-
Bore/Drill Rig	-	3	3		-	-
Cement and Mortar Mixers	-	2	2		1	4
Concrete/Industrial Saws	4	-	-	1	2	2
Cranes (Tower)	-	-	-		-	-
Cranes (Mobile)	-	1	1	2	2	2
Crawler Tractors	-	-	-		-	-
Crushing/Proc. Equipment	-	-	-		-	-
Excavators	1	2	2		-	-
Forklifts	-	1	1	3	4	1
Generator Sets	-	-	-		-	-
Graders	-	-	-		-	2
Off-Highway Tractors	-	-	-		-	-
Water Truck / Street Sweeper	2	3	3		-	2
Pavers	-	-	-		-	-
Paving Equipment	-	-	-		-	-
Pumps	-	1	1	3	2	-
Plate Compactors	-	-	-	2	-	4
Rollers	-	-	-		-	-
Rough Terrain Forklifts	2	1	1	1	1	2
Rubber Tired Dozers	-	-	-		-	-
Rubber Tired Loaders	4	4	4		-	2
Scrapers	-	-	-		-	-
Signal Boards	-	-	-		-	-
Skid Steer Loaders	-	-	-		-	-
Surfacing Equipment	-	-	-		-	-
Tractors/Loaders/Backhoes	4	3	3		-	2
Trenchers	-	-	-		-	2
Welders	-	1	1	3	5	-
Other (Telescopic handlers, cherry pickers, arial platforms)	-	-	-	2	6	-
Total Pieces	19	24	24	20	26	27

AQ Summary

Summary of Modified Project Emissions (Unmitigated, with PDFs)

Construction

Regional (Daily)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2018	10	99	158	0	15	4
2019	5	39	84	0	8	2
2020	18	37	80	0	8	2
2021	17	62	78	0	8	2
MAX	18	99	158	0	15	4
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**57**	**1**	**392**	**150**	**135**	**51**
Significant Impact	**No**	**No**	**No**	**No**	**No**	**No**

Localized (Daily)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2018		10	62		7	1
2019		13	51		0	0
2020		13	51		0	0
2021		13	51		0	0
MAX		13	62		7	1
Threshold		**95**	**1861**		**16**	**8**
Difference		**82**	**1,799**		**9**	**7**
Significant Impact		**No**	**No**		**No**	**No**

Combined Construction Emissions (Modified Project and Addendum No. 4)

	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2018						
Maximum Modified Project	10	99	158	0	15	4
Maximum Addendum No. 2	9	108	70	0	12	7
Combined	**19**	**207**	**228**	**0**	**27**	**11**
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**56**	**-107**	**322**	**150**	**123**	**44**
Significant Impact	**No**	**Yes**	**No**	**No**	**No**	**No**
2019						
Maximum Modified Project	5	39	84	0	8	2
Maximum Addendum No. 2	24	39	51	0	6	3
Combined	**29**	**78**	**135**	**0**	**14**	**5**
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**46**	**22**	**415**	**150**	**136**	**50**
Significant Impact	**No**	**Yes**	**No**	**No**	**No**	**No**
Approved Project Construction Emissions						
Maximum	**57**	**638**	**349**	**6**	**214**	**214**
	-38	**-431**	**-120**	**-6**	**-188**	**-203**
	-66%	**-68%**	**-35%**	**-94%**	**-88%**	**-95%**

Summary of Project Emissions

	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Area	7	0	0	0	0	0
Energy	0	1	1	0	0	0
Mobile	3	13	32	0	9	2
	10	14	33	0	9	2

Step 1. Determine Allowable Increase using 98th percentile NO2 and Max NO2 data

Central LA NO2 Monitoring Data

Stn #	City	Design Value 2013-2015	98th percentile, ppb 2013	2014	2015	Threshold (ppb)	Allowable Increase (ppb)
87	CELA	65	63	69	62	100	35

Stn #	City	Design Value 2006-2008	Max Hourly, ppb 2007	2008	2009	2010	Threshold (ppb)	Allowable Increase (ppb)
87	CELA	120	110	100	120	90	180	60

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	59%

Step 2. Use ratio in Step 1 to determine LST lookup value. Extrapolate/Interpolate LST look-up value for project area

LST Threshold (SRA 1, 25 meter receptor)

Project Size (acres)		NO2 (lbs/day)	98th Percentile NO2 (lbs/day)	CO (lbs/day)	Construction PM10 (lbs/day)	Construction PM2.5 (lbs/day)	Operations PM10 (lbs/day)	Operations PM2.5 (lbs/day)	
	5	161	95	1861	16	8	4	2	LACMA

Lucas Museum (Construction)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	299.72	1000sqft	6.88	299,717.00	0
Enclosed Parking with Elevator	2,202.00	Space	19.82	880,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33%

Land Use - site specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - site specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - site specific

Demolition -

Grading -

Vehicle Trips - site specific

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - site specific

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	1,390.00	900.00
tblTripsAndVMT	HaulingTripNumber	75,718.00	24,480.00
tblTripsAndVMT	HaulingTripNumber	12,651.00	16,625.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,800.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripNumber	0.00	12.00
tblTripsAndVMT	VendorTripNumber	0.00	23.00
tblTripsAndVMT	VendorTripNumber	0.00	76.00
tblTripsAndVMT	VendorTripNumber	193.00	202.00
tblTripsAndVMT	VendorTripNumber	193.00	202.00
tblTripsAndVMT	WorkerTripNumber	48.00	153.00
tblTripsAndVMT	WorkerTripNumber	60.00	176.00
tblTripsAndVMT	WorkerTripNumber	60.00	176.00
tblTripsAndVMT	WorkerTripNumber	496.00	436.00
tblTripsAndVMT	WorkerTripNumber	496.00	586.00
tblTripsAndVMT	WorkerTripNumber	99.00	0.00
tblTripsAndVMT	WorkerTripNumber	68.00	171.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	22.6441	166.9196	158.2420	0.3769	19.7139	4.5236	23.5701	3.7742	4.2480	10.7531						37,749.4193
2019	11.0702	80.1292	82.6610	0.2008	7.8433	3.3050	11.1483	2.1095	3.2032	5.3127						19,954.6542
2020	22.7768	73.7872	78.8900	0.1984	7.8433	2.8502	10.6935	2.1095	2.7622	4.8717						19,645.0604
2021	21.8648	116.0980	75.7489	0.2607	7.8433	3.1477	10.2601	2.1095	2.9576	4.4515						27,004.8177
Maximum	**22.7768**	**166.9196**	**158.2420**	**0.3769**	**19.7139**	**4.5236**	**23.5701**	**3.7742**	**4.2480**	**10.7531**						**37,749.4193**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	10.1217	98.9840	158.1382	0.3769	14.0099	0.7545	14.6789	3.7742	0.7286	4.4199						37,749.4193
2019	5.2226	39.2258	83.5122	0.2008	7.8433	0.3238	8.1671	2.1095	0.3128	2.4222						19,954.6542
2020	17.6044	37.0413	80.4543	0.1984	7.8433	0.2733	8.1166	2.1095	0.2645	2.3740						19,645.0604
2021	17.2975	61.7177	77.9972	0.2607	7.8433	0.3143	8.0535	2.1095	0.3058	2.3136						27,004.8177
Maximum	**17.6044**	**98.9840**	**158.1382**	**0.3769**	**14.0099**	**0.7545**	**14.6789**	**3.7742**	**0.7286**	**4.4199**						**37,749.4193**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**35.87**	**45.77**	**-1.15**	**0.00**	**13.19**	**87.95**	**29.92**	**0.00**	**87.76**	**54.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/24/2018	5	18	
2	Grading	Grading	1/25/2018	6/15/2018	5	102	
3	Grading/Foundation Overlap	Grading	6/18/2018	10/26/2018	5	95	
4	Foundation/Building Construction	Building Construction	10/27/2018	11/26/2018	5	21	
5	Building Construction	Building Construction	11/27/2018	4/27/2021	5	631	
6	Architectural Coating	Architectural Coating	6/1/2020	4/27/2021	5	237	
7	Paving	Paving	4/28/2021	6/7/2021	5	29	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 449,576; Non-Residential Outdoor: 149,859; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	4	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Loaders	4	8.00	203	0.36
Demolition	Sweepers/Scrubbers	2	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	3	8.00	221	0.50
Grading	Cement and Mortar Mixers	2	8.00	9	0.56
Grading	Cranes	1	8.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Grading	Forklifts	1	8.00	89	0.20
Grading	Graders	0	8.00	187	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rough Terrain Forklifts	1	8.00	100	0.40

Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	4	8.00	203	0.36
Grading	Scrapers	0	8.00	367	0.48
Grading	Sweepers/Scrubbers	3	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Welders	1	8.00	46	0.45
Grading/Foundation Overlap	Air Compressors	2	8.00	78	0.48
Grading/Foundation Overlap	Bore/Drill Rigs	3	8.00	221	0.50
Grading/Foundation Overlap	Cement and Mortar Mixers	2	8.00	9	0.56
Grading/Foundation Overlap	Cranes	1	8.00	231	0.29
Grading/Foundation Overlap	Excavators	2	8.00	158	0.38
Grading/Foundation Overlap	Forklifts	1	8.00	89	0.20
Grading/Foundation Overlap	Graders	0	8.00	187	0.41
Grading/Foundation Overlap	Pumps	1	8.00	84	0.74
Grading/Foundation Overlap	Rough Terrain Forklifts	1	8.00	100	0.40
Grading/Foundation Overlap	Rubber Tired Dozers	0	8.00	247	0.40
Grading/Foundation Overlap	Rubber Tired Loaders	4	8.00	203	0.36
Grading/Foundation Overlap	Scrapers	0	8.00	367	0.48
Grading/Foundation Overlap	Sweepers/Scrubbers	3	8.00	64	0.46
Grading/Foundation Overlap	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading/Foundation Overlap	Welders	1	8.00	46	0.45
Foundation/Building Construction	Aerial Lifts	2	8.00	63	0.31
Foundation/Building Construction	Air Compressors	3	8.00	78	0.48
Foundation/Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Foundation/Building Construction	Cranes	2	8.00	231	0.29
Foundation/Building Construction	Forklifts	3	8.00	89	0.20
Foundation/Building Construction	Generator Sets	0	8.00	84	0.74
Foundation/Building Construction	Plate Compactors	2	8.00	8	0.43
Foundation/Building Construction	Pumps	3	8.00	84	0.74
Foundation/Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Foundation/Building Construction	Rubber Tired Dozers	0	8.00	247	0.40
Foundation/Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation/Building Construction	Welders	3	8.00	46	0.45
Building Construction	Aerial Lifts	6	8.00	63	0.31
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	2	8.00	81	0.73
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Pumps	2	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	5	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Air Compressors	2	8.00	78	0.48
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Concrete/Industrial Saws	2	8.00	81	0.73
Paving	Cranes	2	8.00	231	0.29
Paving	Forklifts	1	8.00	89	0.20
Paving	Graders	2	8.00	187	0.41
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36

Paving	Plate Compactors	4	8.00	8	0.43
Paving	Rollers	0	8.00	80	0.38
Paving	Rough Terrain Forklifts	2	8.00	100	0.40
Paving	Rubber Tired Loaders	2	8.00	203	0.36
Paving	Sweepers/Scrubbers	2	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Trenchers	2	8.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	19	153.00	12.00	900.00	14.70	38.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	24	176.00	23.00	24,480.00	14.70	38.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Foundation Overlap	24	176.00	76.00	16,625.00	14.70	38.00	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Building Construction	20	436.00	202.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	26	586.00	202.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	27	171.00	0.00	5,800.00	14.70	38.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.7079	0.0000	16.7079	2.5297	0.0000	2.5297						0.0000
Off-Road	6.8826	65.2706	48.0498	0.0875		3.7238	3.7238		3.5434	3.5434						8,661.0095
Total	**6.8826**	**65.2706**	**48.0498**	**0.0875**	**16.7079**	**3.7238**	**20.4317**	**2.5297**	**3.5434**	**6.0732**						**8,661.0095**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5088	16.3745	3.5756	0.0399	0.8742	0.0626	0.9368	0.2396	0.0599	0.2995						4,312.6447
Vendor	0.2132	4.7981	1.3327	0.0143	0.4217	0.0545	0.4762	0.1213	0.0521	0.1734						1,522.6607
Worker	0.9356	0.7064	7.6082	0.0182	1.7102	0.0153	1.7254	0.4536	0.0141	0.4676						1,807.9807
Total	**1.6576**	**21.8789**	**12.5165**	**0.0723**	**3.0060**	**0.1324**	**3.1384**	**0.8144**	**0.1261**	**0.9405**						**7,643.2860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5161	0.0000	6.5161	0.9866	0.0000	0.9866						0.0000
Off-Road	1.0636	6.9143	54.0126	0.0875		0.1335	0.1335		0.1335	0.1335						8,661.0095
Total	**1.0636**	**6.9143**	**54.0126**	**0.0875**	**6.5161**	**0.1335**	**6.6496**	**0.9866**	**0.1335**	**1.1201**						**8,661.0095**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5088	16.3745	3.5756	0.0399	0.8742	0.0626	0.9368	0.2396	0.0599	0.2995						4,312.6447
Vendor	0.2132	4.7981	1.3327	0.0143	0.4217	0.0545	0.4762	0.1213	0.0521	0.1734						1,522.6607
Worker	0.9356	0.7064	7.6082	0.0182	1.7102	0.0153	1.7254	0.4536	0.0141	0.4676						1,807.9807
Total	**1.6576**	**21.8789**	**12.5165**	**0.0723**	**3.0060**	**0.1324**	**3.1384**	**0.8144**	**0.1261**	**0.9405**						**7,643.2860**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6716	0.0000	0.6716	0.1017	0.0000	0.1017						0.0000
Off-Road	7.7262	78.3133	50.0903	0.1097		3.9416	3.9416		3.6919	3.6919						10,931.8765
Total	**7.7262**	**78.3133**	**50.0903**	**0.1097**	**0.6716**	**3.9416**	**4.6132**	**0.1017**	**3.6919**	**3.7936**						**10,931.8765**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4424	78.5973	17.1629	0.1913	4.1960	0.3007	4.4966	1.1502	0.2877	1.4378						20,700.6944
Vendor	0.4087	9.1963	2.5543	0.0274	0.8082	0.1045	0.9126	0.2324	0.0999	0.3323						2,918.4331
Worker	1.0762	0.8126	8.7520	0.0209	1.9673	0.0175	1.9848	0.5217	0.0162	0.5379						2,079.7686
Total	**3.9273**	**88.6063**	**28.4691**	**0.2395**	**6.9714**	**0.4227**	**7.3941**	**1.9043**	**0.4038**	**2.3080**						**25,698.8961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					0.2619	0.0000	0.2619	0.0397	0.0000	0.0397						0.0000
Off-Road	1.4090	10.3777	61.6416	0.1097		0.1725	0.1725		0.1725	0.1725						10,931.8765
Total	**1.4090**	**10.3777**	**61.6416**	**0.1097**	**0.2619**	**0.1725**	**0.4344**	**0.0397**	**0.1725**	**0.2121**						**10,931.8765**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4424	78.5973	17.1629	0.1913	4.1960	0.3007	4.4966	1.1502	0.2877	1.4378						20,700.6944
Vendor	0.4087	9.1963	2.5543	0.0274	0.8082	0.1045	0.9126	0.2324	0.0999	0.3323						2,918.4331
Worker	1.0762	0.8126	8.7520	0.0209	1.9673	0.0175	1.9848	0.5217	0.0162	0.5379						2,079.7686
Total	**3.9273**	**88.6063**	**28.4691**	**0.2395**	**6.9714**	**0.4227**	**7.3941**	**1.9043**	**0.4038**	**2.3080**						**25,698.8961**

3.4 Grading/Foundation Overlap - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1205	0.0000	0.1205	0.0182	0.0000	0.0182						0.0000
Off-Road	7.7262	78.3133	50.0903	0.1097		3.9416	3.9416		3.6919	3.6919						10,931.8765
Total	**7.7262**	**78.3133**	**50.0903**	**0.1097**	**0.1205**	**3.9416**	**4.0621**	**0.0182**	**3.6919**	**3.7101**						**10,931.8765**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7809	57.3106	12.5146	0.1395	3.0596	0.2192	3.2788	0.8387	0.2098	1.0484						15,094.2563
Vendor	1.3505	30.3878	8.4403	0.0905	2.6705	0.3452	3.0157	0.7679	0.3302	1.0982						9,643.5179
Worker	1.0762	0.8126	8.7520	0.0209	1.9673	0.0175	1.9848	0.5217	0.0162	0.5379						2,079.7686
Total	**4.2077**	**88.5110**	**29.7069**	**0.2509**	**7.6973**	**0.5820**	**8.2793**	**2.1283**	**0.5562**	**2.6845**						**26,817.5429**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0470	0.0000	0.0470	7.1200e-003	0.0000	7.1200e-003						0.0000

Off-Road	1.4090	10.3777	61.6416	0.1097		0.1725	0.1725		0.1725	0.1725						10,931.8765
Total	**1.4090**	**10.3777**	**61.6416**	**0.1097**	**0.0470**	**0.1725**	**0.2195**	**7.1200e-003**	**0.1725**	**0.1796**						**10,931.8765**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7809	57.3106	12.5146	0.1395	3.0596	0.2192	3.2788	0.8387	0.2098	1.0484						15,094.2563
Vendor	1.3505	30.3878	8.4403	0.0905	2.6705	0.3452	3.0157	0.7679	0.3302	1.0982						9,643.5179
Worker	1.0762	0.8126	8.7520	0.0209	1.9673	0.0175	1.9848	0.5217	0.0162	0.5379						2,079.7686
Total	**4.2077**	**88.5110**	**29.7069**	**0.2509**	**7.6973**	**0.5820**	**8.2793**	**2.1283**	**0.5562**	**2.6845**						**26,817.5429**

3.5 Foundation/Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6311	51.8044	41.7207	0.0694		3.1608	3.1608		3.0726	3.0726						6,614.4157
Total	**6.6311**	**51.8044**	**41.7207**	**0.0694**		**3.1608**	**3.1608**		**3.0726**	**3.0726**						**6,614.4157**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.9684	24.8128	7.4404	0.0520	1.2932	0.1773	1.4704	0.3723	0.1696	0.5419						5,547.8163
Worker	2.6661	2.0130	21.6810	0.0517	4.8735	0.0435	4.9169	1.2925	0.0401	1.3325						5,152.1541
Total	**3.6344**	**26.8258**	**29.1214**	**0.1037**	**6.1666**	**0.2207**	**6.3873**	**1.6648**	**0.2096**	**1.8744**						**10,699.9703**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8335	7.5836	41.6905	0.0694		0.0969	0.0969		0.0969	0.0969						6,614.4157
Total	**0.8335**	**7.5836**	**41.6905**	**0.0694**		**0.0969**	**0.0969**		**0.0969**	**0.0969**						**6,614.4157**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.9684	24.8128	7.4404	0.0520	1.2932	0.1773	1.4704	0.3723	0.1696	0.5419						5,547.8163
Worker	2.6661	2.0130	21.6810	0.0517	4.8735	0.0435	4.9169	1.2925	0.0401	1.3325						5,152.1541
Total	**3.6344**	**26.8258**	**29.1214**	**0.1037**	**6.1666**	**0.2207**	**6.3873**	**1.6648**	**0.2096**	**1.8744**						**10,699.9703**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.8269	59.1918	50.8194	0.0822		3.5778	3.5778		3.4733	3.4733						7,818.4888
Total	**7.8269**	**59.1918**	**50.8194**	**0.0822**		**3.5778**	**3.5778**		**3.4733**	**3.4733**						**7,818.4888**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.9684	24.8128	7.4404	0.0520	1.2932	0.1773	1.4704	0.3723	0.1696	0.5419						5,547.8163
Worker	3.5833	2.7056	29.1400	0.0695	6.5501	0.0584	6.6085	1.7371	0.0538	1.7910						6,924.6841
Total	**4.5517**	**27.5184**	**36.5804**	**0.1215**	**7.8433**	**0.2357**	**8.0789**	**2.1094**	**0.2234**	**2.3328**						**12,472.5004**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1021	13.4344	50.7459	0.0822		0.1158	0.1158		0.1158	0.1158						7,818.4888
Total	**1.1021**	**13.4344**	**50.7459**	**0.0822**		**0.1158**	**0.1158**		**0.1158**	**0.1158**						**7,818.4888**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.9684	24.8128	7.4404	0.0520	1.2932	0.1773	1.4704	0.3723	0.1696	0.5419						5,547.8163
Worker	3.5833	2.7056	29.1400	0.0695	6.5501	0.0584	6.6085	1.7371	0.0538	1.7910						6,924.6841
Total	**4.5517**	**27.5184**	**36.5804**	**0.1215**	**7.8433**	**0.2357**	**8.0789**	**2.1094**	**0.2234**	**2.3328**						**12,472.5004**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.9496	54.3379	49.8947	0.0822		3.0970	3.0970		3.0063	3.0063						7,766.5901
Total	**6.9496**	**54.3379**	**49.8947**	**0.0822**		**3.0970**	**3.0970**		**3.0063**	**3.0063**						**7,766.5901**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.8754	23.4087	6.8373	0.0514	1.2932	0.1515	1.4447	0.3723	0.1449	0.5172						5,489.4214
Worker	3.2451	2.3826	25.9291	0.0672	6.5501	0.0565	6.6066	1.7371	0.0521	1.7892						6,698.6427
Total	**4.1206**	**25.7913**	**32.7664**	**0.1186**	**7.8433**	**0.2080**	**8.0512**	**2.1095**	**0.1970**	**2.3064**						**12,188.0641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1021	13.4344	50.7459	0.0822		0.1158	0.1158		0.1158	0.1158						7,766.5901
Total	**1.1021**	**13.4344**	**50.7459**	**0.0822**		**0.1158**	**0.1158**		**0.1158**	**0.1158**						**7,766.5901**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.8754	23.4087	6.8373	0.0514	1.2932	0.1515	1.4447	0.3723	0.1449	0.5172						5,489.4214
Worker	3.2451	2.3826	25.9291	0.0672	6.5501	0.0565	6.6066	1.7371	0.0521	1.7892						6,698.6427
Total	**4.1206**	**25.7913**	**32.7664**	**0.1186**	**7.8433**	**0.2080**	**8.0512**	**2.1095**	**0.1970**	**2.3064**						**12,188.0641**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.2745	50.1803	49.1816	0.0822		2.6927	2.6927		2.6135	2.6135						7,698.4932
Total	**6.2745**	**50.1803**	**49.1816**	**0.0822**		**2.6927**	**2.6927**		**2.6135**	**2.6135**						**7,698.4932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.7511	21.4828	6.2092	0.0510	1.2932	0.1027	1.3959	0.3723	0.0983	0.4706						5,451.9701
Worker	2.9946	2.1241	23.4992	0.0652	6.5501	0.0548	6.6049	1.7371	0.0504	1.7876						6,494.5970
Total	**3.7457**	**23.6069**	**29.7084**	**0.1162**	**7.8433**	**0.1575**	**8.0008**	**2.1095**	**0.1487**	**2.2582**						**11,946.5671**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1021	13.4344	50.7459	0.0822		0.1158	0.1158		0.1158	0.1158						7,698.4932
Total	**1.1021**	**13.4344**	**50.7459**	**0.0822**		**0.1158**	**0.1158**		**0.1158**	**0.1158**						**7,698.4932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.7511	21.4828	6.2092	0.0510	1.2932	0.1027	1.3959	0.3723	0.0983	0.4706						5,451.9701
Worker	2.9946	2.1241	23.4992	0.0652	6.5501	0.0548	6.6049	1.7371	0.0504	1.7876						6,494.5970
Total	**3.7457**	**23.6069**	**29.7084**	**0.1162**	**7.8433**	**0.1575**	**8.0008**	**2.1095**	**0.1487**	**2.2582**						**11,946.5671**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.6694	46.1470	48.4976	0.0822		2.3225	2.3225		2.2537	2.2537						7,697.4575
Total	**5.6694**	**46.1470**	**48.4976**	**0.0822**		**2.3225**	**2.3225**		**2.2537**	**2.2537**						**7,697.4575**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.6446	19.5715	5.6715	0.0505	1.2932	0.0414	1.3346	0.3723	0.0396	0.4119						5,409.0954
Worker	2.7942	1.9112	21.5798	0.0631	6.5501	0.0529	6.6030	1.7371	0.0488	1.7859						6,288.0138
Total	**3.4388**	**21.4828**	**27.2513**	**0.1136**	**7.8433**	**0.0943**	**7.9377**	**2.1095**	**0.0883**	**2.1978**						**11,697.1092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1021	13.4344	50.7459	0.0822		0.1158	0.1158		0.1158	0.1158						7,697.4575
Total	**1.1021**	**13.4344**	**50.7459**	**0.0822**		**0.1158**	**0.1158**		**0.1158**	**0.1158**						**7,697.4575**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

Vendor	0.6446	19.5715	5.6715	0.0505	1.2932	0.0414	1.3346	0.3723	0.0396	0.4119						5,409.0954
Worker	2.7942	1.9112	21.5798	0.0631	6.5501	0.0529	6.6030	1.7371	0.0488	1.7859						6,288.0138
Total	**3.4388**	**21.4828**	**27.2513**	**0.1136**	**7.8433**	**0.0943**	**7.9377**	**2.1095**	**0.0883**	**2.1978**						**11,697.1092**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.7567					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	**12.7567**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.7567					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	**12.7567**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.7567					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	**12.7567**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.7567					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	**12.7567**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.1389	61.2344	44.3589	0.0890		2.9651	2.9651		2.7834	2.7834						8,504.5235
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**6.1389**	**61.2344**	**44.3589**	**0.0890**		**2.9651**	**2.9651**		**2.7834**	**2.7834**						**8,504.5235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7077	54.3059	13.3387	0.1533	3.4971	0.1672	3.6642	0.9586	0.1599	1.1185						16,665.3960
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.8154	0.5577	6.2972	0.0184	1.9114	0.0154	1.9268	0.5069	0.0142	0.5211						1,834.8982
Total	**2.5231**	**54.8636**	**19.6358**	**0.1717**	**5.4085**	**0.1826**	**5.5911**	**1.4655**	**0.1742**	**1.6397**						**18,500.2942**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0497	6.8541	49.4219	0.0890		0.1317	0.1317		0.1317	0.1317						8,504.5235
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**1.0497**	**6.8541**	**49.4219**	**0.0890**		**0.1317**	**0.1317**		**0.1317**	**0.1317**						**8,504.5235**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7077	54.3059	13.3387	0.1533	3.4971	0.1672	3.6642	0.9586	0.1599	1.1185						16,665.3960
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.8154	0.5577	6.2972	0.0184	1.9114	0.0154	1.9268	0.5069	0.0142	0.5211						1,834.8982
Total	**2.5231**	**54.8636**	**19.6358**	**0.1717**	**5.4085**	**0.1826**	**5.5911**	**1.4655**	**0.1742**	**1.6397**						**18,500.2942**

Lucas Museum (Construction)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	299.72	1000sqft	6.88	299,717.00	0
Enclosed Parking with Elevator	2,202.00	Space	19.82	880,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33%

Land Use - site specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - site specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - site specific

Demolition -

Grading -

Vehicle Trips - site specific

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - site specific

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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tblFleetMix	FleetMixLandUseSubType	Enclosed Parking with Elevator	Library
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tblTripsAndVMT	WorkerTripNumber	496.00	586.00
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tblTripsAndVMT	WorkerTripNumber	68.00	171.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.4785	19.3183	10.1469	0.0410	1.0851	0.5550	1.6401	0.2742	0.5240	0.7982						3,874.9327
2019	1.4015	10.5241	10.8347	0.0265	1.0040	0.4311	1.4352	0.2705	0.4179	0.6883						2,385.9895
2020	2.2546	9.7269	10.3790	0.0262	1.0079	0.3733	1.3811	0.2715	0.3617	0.6333						2,357.9956
2021	1.0195	4.5229	4.0808	0.0120	0.3963	0.1459	0.5422	0.1069	0.1400	0.2470						1,095.2795
Maximum	**2.2546**	**19.3183**	**10.8347**	**0.0410**	**1.0851**	**0.5550**	**1.6401**	**0.2742**	**0.5240**	**0.7982**						**3,874.9327**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.6589	11.0651	11.3371	0.0410	0.9690	0.0759	1.0449	0.2566	0.0734	0.3301						3,874.9313
2019	0.6384	5.1862	10.9457	0.0265	1.0040	0.0421	1.0461	0.2705	0.0406	0.3111						2,385.9884
2020	1.5770	4.9132	10.5839	0.0262	1.0079	0.0357	1.0436	0.2715	0.0345	0.3061						2,357.9945
2021	0.7561	2.3768	4.2475	0.0120	0.3963	0.0132	0.4095	0.1069	0.0129	0.1198						1,095.2791
Maximum	**1.5770**	**11.0651**	**11.3371**	**0.0410**	**1.0079**	**0.0759**	**1.0461**	**0.2715**	**0.0734**	**0.3301**						**3,874.9313**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**41.01**	**46.61**	**-4.72**	**0.00**	**3.32**	**88.91**	**29.10**	**1.90**	**88.81**	**54.92**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2018	3-31-2018	9.2430	5.1924
2	4-1-2018	6-30-2018	10.4275	6.0519
3	7-1-2018	9-30-2018	5.8125	3.3727
4	10-1-2018	12-31-2018	4.9939	2.4694
5	1-1-2019	3-31-2019	2.9314	1.4287
6	4-1-2019	6-30-2019	2.9440	1.4245
7	7-1-2019	9-30-2019	2.9763	1.4402
8	10-1-2019	12-31-2019	2.9966	1.4604
9	1-1-2020	3-31-2020	2.7237	1.3614
10	4-1-2020	6-30-2020	2.8431	1.4808
11	7-1-2020	9-30-2020	3.1554	1.7780
12	10-1-2020	12-31-2020	3.1728	1.7955
13	1-1-2021	3-31-2021	2.8766	1.6783
14	4-1-2021	6-30-2021	2.6732	1.4429
		Highest	10.4275	6.0519

		Person Trips						CalEEMod Default Trip Rates				Adjusted Trip Rates		
NIERM (Daily Trip Generation)	size	Drive Alone	Carpool	Tour Bus	School Bus	Public Transit	Walk/Bike/Internal	Total	Trip Rate (Daily)	Weekday	Saturday	Sunday	Scalar	Saturday	Sunday	
Museum	299.7	128	3,648	576	256	1,472	320	6,400	21.35	56.24	46.55	25.49	0.38	17.67		9.68
Parking Structure (enclosed/elevator)	2425	-	-	-	-	-	-	-								
		-	-													

		Person Trips						CalEEMod Default Trip Rates				Adjusted Trip Rates		
Project (Daily Trip Generation)	size	Drive Alone	Carpool	Tour Bus	School Bus	Public Transit	Walk/Bike/Internal	Total	Trip Rate (Daily)	Weekday	Saturday	Sunday	Scalar	Saturday	Sunday	
Museum	299.7	128	1,459	17	6	-	0	1,610	5.37	56.24	46.55	25.49	0.10	4.45		2.43
Parking Structure (enclosed/elevator)	2425	-	-	-	-	-	-	-								

Summary of GHG Emissions

Construction

2018	1,958
2019	3,612
2020	2,720
2021	2,302
2022	2,749
2023	827
Total	14,168
Amortized over 30 years	472

Operation

	Existing	**No Project**	**NIERM**	**Project**			
Area	-	-	0	0	-334%	0	0%
Energy	-	-	2,886	2,296	20%	2,296	52%
Mobile	-	-	6,437	1,619	75%	1,619	37%
Stationary	-	-	-	-	0%	-	0%
Waste	-	-	69	69	0%	69	2%
Water	-	-	122	97	20%	97	2%
Construction			324	324	0%	324	7%
Total	**-**	**-**	**9,514**	**4,406**	54%	4,406	

Parking Structure Electricity Calculation for Title 24 Sources (Ventilation) and Lighting
Consistent with Section 120.6(c), Mandatory Requirements for Enclosed Parking Garages, the ventilation rate shall be at least 0.15 cfm/sq f when the garage is scheduled to be occupied.

Parking Garage Ventilation

Square Footage =	1091250	ft2
Minimum Ventilation =	0.15	cfm/ft2
Flowrate =	163687.5	cfm
Number of Fans (20,000 cfm)	9.0	fans
Number of Fans	10	fans
Horsepower per Fan	15	hp
Horsepower to kW Conv.	0.746	kW per hp
Total kW =	111.9	
Annual kW =	490,122	conservatively assumes operational 50 percent of the time even though it would only be operational when CO sensors read CO concentrations in excess of 25 ppm (2013 Building Energy Efficiency Stanards
Usage Rate:	**0.45**	kWh/sq ft annual
Adjustment:	0.53	(CalEEMod applies mititgation to all land uses. So, this adjustement accounts for the 15% reduction in Title 24 standards associated with LEED Gold)

Parking Garage Lighting

Square Footage =	1091250	ft2
Allowed Lighting Power =	0.2	watts per ft2 (Table 140.6 (Complete Building Method Lighting Power Density Value) of the 2013 Building Energy Efficiency Standards)
Annual kW =	1,911,870	conservatively assumes maximum lighting power 24 hours per day)
Number of Fans (20,000 cfm)	**1.75**	kWh/sq ft annual
Adjustment:	2.34	(CalEEMod applies mititgation to all land uses. So, this adjustement accounts for the 25% reduction in lighting associated with LEED)

Elevator (no change CalEEMod Default) **0.19** kWh/sq ft annual

Lucas Museum (Operations)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	299.72	1000sqft	6.88	299,720.00	0
Enclosed Parking with Elevator	2,425.00	Space	21.82	970,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33%

Land Use - site specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - site specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - site specific

Demolition -

Grading -

Vehicle Trips - site specific

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - site specific

Energy Use - LEED Gold

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	35.00	130.00
tblConstructionPhase	NumDays	440.00	21.00
tblConstructionPhase	NumDays	440.00	631.00
tblConstructionPhase	NumDays	30.00	18.00
tblConstructionPhase	NumDays	45.00	102.00
tblConstructionPhase	NumDays	45.00	95.00
tblConstructionPhase	NumDays	35.00	29.00
tblConstructionPhase	PhaseEndDate	5/4/2022	6/7/2021
tblConstructionPhase	PhaseStartDate	6/8/2021	12/8/2020
tblEnergyUse	LightingElect	2.63	2.33
tblEnergyUse	T24E	3.92	0.53
tblEnergyUse	T24E	2.36	2.24
tblGrading	MaterialExported	0.00	605,747.00
tblGrading	MaterialImported	0.00	101,210.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	1,390.00	900.00
tblTripsAndVMT	HaulingTripNumber	75,718.00	24,480.00
tblTripsAndVMT	HaulingTripNumber	12,651.00	16,625.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,800.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripLength	6.90	38.00
tblTripsAndVMT	VendorTripNumber	0.00	12.00
tblTripsAndVMT	VendorTripNumber	0.00	23.00
tblTripsAndVMT	VendorTripNumber	0.00	76.00
tblTripsAndVMT	VendorTripNumber	193.00	202.00
tblTripsAndVMT	VendorTripNumber	193.00	202.00
tblTripsAndVMT	WorkerTripNumber	48.00	153.00
tblTripsAndVMT	WorkerTripNumber	60.00	176.00
tblTripsAndVMT	WorkerTripNumber	60.00	176.00
tblTripsAndVMT	WorkerTripNumber	496.00	436.00
tblTripsAndVMT	WorkerTripNumber	496.00	586.00
tblTripsAndVMT	WorkerTripNumber	99.00	0.00
tblTripsAndVMT	WorkerTripNumber	68.00	171.00
tblVehicleTrips	ST_TR	46.55	4.45
tblVehicleTrips	SU_TR	25.49	2.43
tblVehicleTrips	WD_TR	56.24	5.37

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.1324	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359
Energy	0.1608	1.4620	1.2281	8.7700e-003		0.1111	0.1111		0.1111	0.1111						1,764.7896
Mobile	2.6712	12.6329	31.9440	0.1057	8.6407	0.0931	8.7338	2.3125	0.0869	2.3994						10,770.4358
Total	**9.9645**	**14.0974**	**33.4513**	**0.1145**	**8.6407**	**0.2052**	**8.8459**	**2.3125**	**0.1991**	**2.5115**						**12,535.8613**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.1324	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359
Energy	0.1426	1.2964	1.0890	7.7800e-003		0.0985	0.0985		0.0985	0.0985						1,564.9388
Mobile	2.6712	12.6329	31.9440	0.1057	8.6407	0.0931	8.7338	2.3125	0.0869	2.3994						10,770.4358
Total	**9.9463**	**13.9319**	**33.3122**	**0.1135**	**8.6407**	**0.1927**	**8.8333**	**2.3125**	**0.1865**	**2.4989**						**12,336.0106**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.18**	**1.17**	**0.42**	**0.86**	**0.00**	**6.13**	**0.14**	**0.00**	**6.32**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.59**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6712	12.6329	31.9440	0.1057	8.6407	0.0931	8.7338	2.3125	0.0869	2.3994						10,770.4358
Unmitigated	2.6712	12.6329	31.9440	0.1057	8.6407	0.0931	8.7338	2.3125	0.0869	2.3994						10,770.4358

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	1,609.50	1,333.75	728.32	3,646,207	3,646,207

Total	1,609.50	1,333.75	728.32	3,646,207	3,646,207

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Enclosed Parking with Elevator	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1426	1.2964	1.0890	7.7800e-003		0.0985	0.0985		0.0985	0.0985						1,564.9388
NaturalGas Unmitigated	0.1608	1.4620	1.2281	8.7700e-003		0.1111	0.1111		0.1111	0.1111						1,764.7896

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	14912.1	0.1608	1.4620	1.2281	8.7700e-003		0.1111	0.1111		0.1111	0.1111						1,764.7896
Total		**0.1608**	**1.4620**	**1.2281**	**8.7700e-003**		**0.1111**	**0.1111**		**0.1111**	**0.1111**						**1,764.7896**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	13.2234	0.1426	1.2964	1.0890	7.7800e-003		0.0985	0.0985		0.0985	0.0985						1,564.9388
Total		**0.1426**	**1.2964**	**1.0890**	**7.7800e-003**		**0.0985**	**0.0985**		**0.0985**	**0.0985**						**1,564.9388**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.1324	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359
Unmitigated	7.1324	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8283					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	6.2780					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0261	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359
Total	**7.1324**	**2.5600e-003**	**0.2793**	**2.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**						**0.6359**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8283					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	6.2780					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0261	2.5600e-003	0.2793	2.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003						0.6359
Total	**7.1324**	**2.5600e-003**	**0.2793**	**2.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**						**0.6359**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lucas Museum - Los Angeles-South Coast County, Annual

Lucas Museum (Operations)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	299.72	1000sqft	6.88	299,720.00	0
Enclosed Parking with Elevator	2,425.00	Space	21.82	970,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Energy	0.0294	0.2668	0.2241	1.6000e-003		0.0203	0.0203		0.0203	0.0203						2,704.4988
Mobile	0.4246	2.1011	5.2753	0.0175	1.3839	0.0151	1.3990	0.3710	0.0141	0.3851						1,619.1842
Waste						0.0000	0.0000		0.0000	0.0000						138.8109
Water						0.0000	0.0000		0.0000	0.0000						121.7070
Total	**1.7541**	**2.3683**	**5.5343**	**0.0191**	**1.3839**	**0.0355**	**1.4194**	**0.3710**	**0.0345**	**0.4055**						**4,584.2731**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Energy	0.0260	0.2366	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180						2,295.8950
Mobile	0.4246	2.1011	5.2753	0.0175	1.3839	0.0151	1.3990	0.3710	0.0141	0.3851						1,619.1842
Waste						0.0000	0.0000		0.0000	0.0000						69.4054
Water						0.0000	0.0000		0.0000	0.0000						97.3656

Total	**1.7508**	**2.3381**	**5.5090**	**0.0189**	**1.3839**	**0.0332**	**1.4171**	**0.3710**	**0.0322**	**0.4032**						**4,081.9224**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.19**	**1.28**	**0.46**	**0.94**	**0.00**	**6.47**	**0.16**	**0.00**	**6.66**	**0.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**10.96**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4246	2.1011	5.2753	0.0175	1.3839	0.0151	1.3990	0.3710	0.0141	0.3851						1,619.1842
Unmitigated	0.4246	2.1011	5.2753	0.0175	1.3839	0.0151	1.3990	0.3710	0.0141	0.3851						1,619.1842

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	1,609.50	1,333.75	728.32	3,646,207	3,646,207
Total	1,609.50	1,333.75	728.32	3,646,207	3,646,207

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Enclosed Parking with Elevator	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						2,036.8018
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						2,412.3181

NaturalGas Mitigated	0.0260	0.2366	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180						259.0932
NaturalGas Unmitigated	0.0294	0.2668	0.2241	1.6000e-003		0.0203	0.0203		0.0203	0.0203						292.1807

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	5.44292e+006	0.0294	0.2668	0.2241	1.6000e-003		0.0203	0.0203		0.0203	0.0203						292.1807
Total		**0.0294**	**0.2668**	**0.2241**	**1.6000e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**						**292.1807**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	4.82654e+006	0.0260	0.2366	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180						259.0932
Total		**0.0260**	**0.2366**	**0.1987**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**						**259.0932**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.9585e+006				1,130.6129
Library	3.35387e+006				1,281.7053
Total					**2,412.3181**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.31636e+006				885.2143
Library	3.01338e+006				1,151.5875

Total					**2,036.8018**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Unmitigated	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1512					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.1457					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Total	**1.3002**	**3.2000e-004**	**0.0349**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**						**0.0721**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1512					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.1457					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Total	**1.3002**	**3.2000e-004**	**0.0349**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**						**0.0721**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				97.3656
Unmitigated				121.7070

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
Library	9.37791 / 14.668				121.7070
Total					**121.7070**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
Library	7.50233 / 11.7344				97.3656
Total					**97.3656**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				69.4054
Unmitigated				138.8109

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
Library	276.02				138.8109
Total					**138.8109**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
Library	138.01				69.4054
Total					**69.4054**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lucas Museum (NIERM)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	299.72	1000sqft	6.88	299,720.00	0
Enclosed Parking with Elevator	2,425.00	Space	21.82	970,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33%
Land Use - site specific
Construction Phase - Site Specific
Off-road Equipment - Site Specific
Off-road Equipment - Site Specific
Off-road Equipment - Site Specific
Off-road Equipment - Site Specific
Off-road Equipment - Site Specific
Off-road Equipment - site specific
Off-road Equipment - Site Specific
Off-road Equipment - Site Specific
Trips and VMT - site specific
Demolition -
Grading -
Vehicle Trips - site specific
Vehicle Emission Factors -
Vehicle Emission Factors -
Vehicle Emission Factors -
Energy Use - LEED Gold
Construction Off-road Equipment Mitigation - site specific
Energy Mitigation -
Water Mitigation -
Waste Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Energy	0.0320	0.2909	0.2444	1.7500e-003		0.0221	0.0221		0.0221	0.0221						2,855.8591
Mobile	1.6881	8.3535	20.9730	0.0696	5.5019	0.0602	5.5620	1.4748	0.0562	1.5310						6,437.3734
Waste						0.0000	0.0000		0.0000	0.0000						69.4054
Water						0.0000	0.0000		0.0000	0.0000						121.7070
Total	**3.0202**	**8.6447**	**21.2523**	**0.0714**	**5.5019**	**0.0824**	**5.5842**	**1.4748**	**0.0784**	**1.5532**						**9,484.4171**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6881	8.3535	20.9730	0.0696	5.5019	0.0602	5.5620	1.4748	0.0562	1.5310						6,437.3734
Unmitigated	1.6881	8.3535	20.9730	0.0696	5.5019	0.0602	5.5620	1.4748	0.0562	1.5310						6,437.3734

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	6,399.02	5,296.05	2901.29	14,496,188	14,496,188
Total	6,399.02	5,296.05	2,901.29	14,496,188	14,496,188

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Library	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						2,537.2920
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						2,537.2920
NaturalGas Mitigated	0.0320	0.2909	0.2444	1.7500e-003		0.0221	0.0221		0.0221	0.0221						318.5671
NaturalGas Unmitigated	0.0320	0.2909	0.2444	1.7500e-003		0.0221	0.0221		0.0221	0.0221						318.5671

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	5.93446e+006	0.0320	0.2909	0.2444	1.7500e-003		0.0221	0.0221		0.0221	0.0221						318.5671
Total		**0.0320**	**0.2909**	**0.2444**	**1.7500e-003**		**0.0221**	**0.0221**		**0.0221**	**0.0221**						**318.5671**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Library	5.93446e+006	0.0320	0.2909	0.2444	1.7500e-003		0.0221	0.0221		0.0221	0.0221						318.5671
Total		**0.0320**	**0.2909**	**0.2444**	**1.7500e-003**		**0.0221**	**0.0221**		**0.0221**	**0.0221**						**318.5671**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.8809e+006				1,100.9575

Library	3.75849e+006				1,436.3346
Total					**2,537.2920**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.8809e+006				1,100.9575
Library	3.75849e+006				1,436.3346
Total					**2,537.2920**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Unmitigated	1.3002	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1512					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.1457					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Total	**1.3002**	**3.2000e-004**	**0.0349**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**						**0.0721**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1512					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.1457					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004						0.0721
Total	**1.3002**	**3.2000e-004**	**0.0349**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**						**0.0721**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				121.7070
Unmitigated				121.7070

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
Library	9.37791 / 14.668				121.7070
Total					**121.7070**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
Library	9.37791 / 14.668				121.7070
Total					**121.7070**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				69.4054
Unmitigated				138.8109

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
Library	276.02				138.8109
Total					**138.8109**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
Library	138.01				69.4054
Total					**69.4054**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

Appendix C

Historic Resources Report



Lucas Museum of Narrative Art

Historical Resources Technical Report

Prepared for:

University of Southern California, Real Estate & Asset Management
Los Angeles, California

Prepared by:

Architectural Resources Group

Pasadena, California

March 15, 2017

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1. Introduction

In response to a request from the University of Southern California, Real Estate and Asset Management, Architectural Resources Group (ARG) has prepared this historical resources technical report for the Lucas Museum for Narrative Art project ("the Project"). The Project Site is generally located at the western edge of Exposition Park, in the South Los Angeles Community Plan Area of the City of Los Angeles. The Project Site is bounded by Vermont Avenue to the west, Bill Robertson Lane to the east, Exposition Boulevard to the north, and Martin Luther King, Jr. Boulevard to the south. West 39th Street and Leighton Avenue traverse the Project Site on an east-west axis. New construction is proposed for the area of two surface parking lots (Parking Lot 2 and Parking Lot 3), roughly south of Jesse Brewer Jr. Park and north of Leighton Avenue. As part of the Project, Jesse Brewer Jr. Park will receive some new landscaping and playground equipment but will otherwise remain intact. The southern part of the Project Site contains a soccer field (Soboroff Field) and a parking lot; the soccer facilities will be relocated to the northeast corner of Vermont and Martin Luther King, Jr, in place of the parking lot.

This study has been prepared to fulfill the requirements of CEQA as they relate to historical resources. CEQA states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment."[1] An evaluation of potential impacts under CEQA includes both a determination of whether historical resources as defined by the California Environmental Quality Act (CEQA) are present on and in the vicinity of the Project Site and, if so, the identification of potential impacts to historical resources caused by the Project.

This report contains:

- A description of the proposed Project.
- A review of existing conditions located on and adjacent to the Project Site.
- A review of previous evaluations of the Project Site and its vicinity through historic surveys, evaluations, environmental compliance documentation, and other official actions.

[1] California Public Resources Code, Section 21084.1.

- Identification of historical resources on, adjacent to, and in the vicinity of the Project Site.
- Analysis of potential impacts to historical resources under CEQA.

In the preparation of this report, ARG staff conducted extensive primary and secondary source research related to the history of Exposition Park and its relationship to the Project Site. The following archives and repositories were consulted: University of Southern California (USC) Digital Archives; the Seaver Center for Western History Research at the Los Angeles County Natural History Museum; Los Angeles Public Library (multiple collections); ProQuest, including historic *Los Angeles Times* databases; Sanborn Fire Insurance Digital Maps; and Los Angeles Department of Building and Safety Online Building Records. A complete bibliography is included in Section 7 of this report.

This technical report was prepared by Katie E. Horak, Principal; Mary Ringhoff, Associate; and Evanne St. Charles, all of whom meet the *Secretary of the Interior's Professional Qualification Standards* in Architectural History.

2. Project Description

2.1 Project Location

The Project Site is located at the western edge of Exposition Park, in the City of Los Angeles. Exposition Park is located in South Los Angeles, directly south of the University of Southern California's (USC) University Park Campus and approximately three miles southwest of downtown Los Angeles. The roughly 14.27-acre Project Site is bounded by Exposition Boulevard to the north, Martin Luther King, Jr. Boulevard to the south, Bill Robertson Lane to the east, and Vermont Avenue to the west. It is crossed by 39th Street and partially crossed by Leighton Avenue. The proposed Lucas Museum of Narrative Art (LMNA) building will be constructed in the middle portion of the larger Project Site, where Parking Lots 2 and 3 are currently located (see Figure 1). The northern part of the Project Site contains Jesse Brewer Jr. Park. The southern part of the Project Site contains a soccer field with outbuildings, and a parking lot. The Project Site is generally surrounded by the USC campus to the north, Exposition Park to the east, and single- and multi-family residential neighborhoods to the south and west.

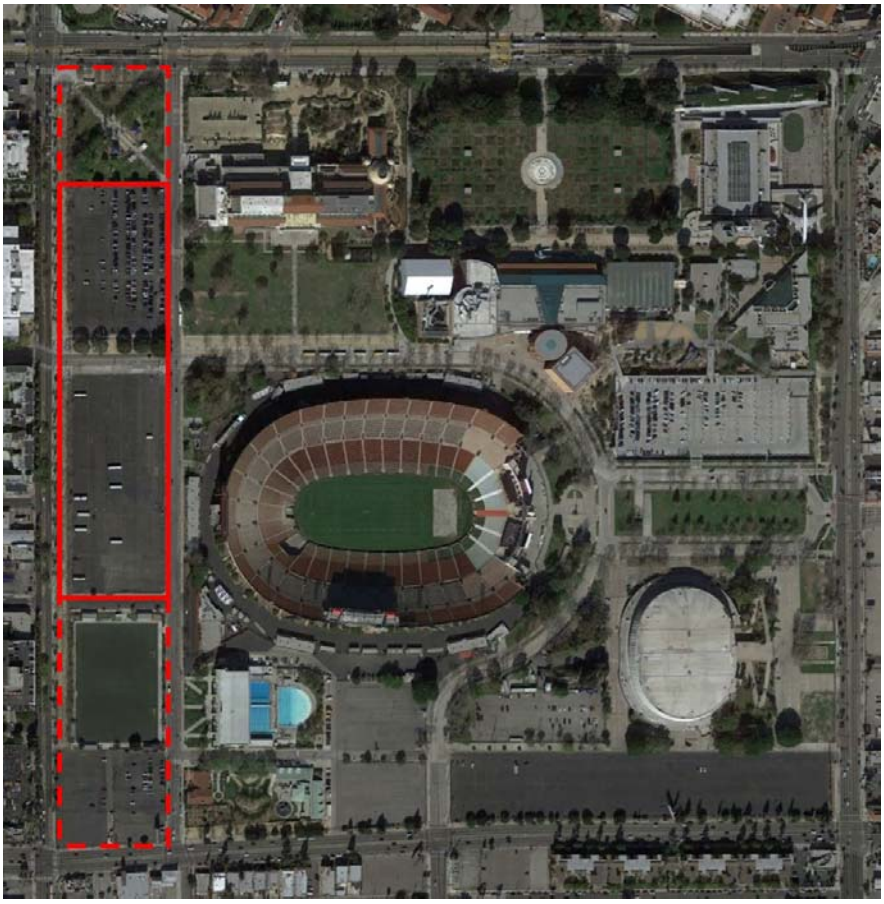


Figure 1. Project location map (Google Maps, 2016). The dashed red outline indicates the overall Project Site. The solid red line indicates the location of new construction.

2.2 Existing Conditions and Uses

The part of the Project Site on which new construction is proposed contains two surface parking lots, Parking Lot 2 and Parking Lot 3:

- Parking Lot 2 occupies the southern portion of the site and has a gross area of 8.8 acres. It contains 816 surface parking stalls on black asphalt. Parking Lot 2 is surrounded by a black metal fence on the west side and a chain link fence on all remaining sides. The parking lot is accessed via three openings in the chain link fence along Bill Robertson Lane. Additional features include two electric poles and light posts, the latter of which are arranged in rows along the center and east edge of the lot.

- Parking Lot 3 occupies the northern portion of the site and has a gross area of 3.4 acres. It contains 481 surface parking stalls on black asphalt. Parking Lot 2 is surrounded by a black metal fence on all four sides. The parking lot is accessed via two openings in the fence along Bill Robertson Lane. Additional features include a row of electric poles (four total) at the center of the lot and light posts in a row at the center and east edge of the lot.

The two parking lots are separated from each other by 39th Street, which has sidewalks on both sides and a wide unpaved area planted with mature ficus trees on the north side.

Immediately north of Parking Lot 3 is Jesse Brewer Jr. Park (dedicated 1998), a landscaped public park with playground equipment, a small restroom building, concrete walkways and walls, metal picnic tables/benches with arched canopies, light posts, and animal-themed statuary. It has black metal fencing on its south, west, and north sides, while its east side is open.

South of Parking Lot 2 is Soboroff Field (completed 2009), an artificial turf soccer field with associated outbuildings, storage units, and tall light posts; it is surrounded by black metal fencing and has a mature tree at its southern edge. This facility is separated from Parking Lot 2 by Leighton Avenue, which connects to Bill Robertson Lane but does not cross all the way to Vermont Avenue.

South of Soboroff Field is a surface parking lot paved with black asphalt and surrounded by a black metal fence. It has a freestanding billboard (facing Martin Luther King, Jr. Boulevard) at its southeast corner.

2.3 Project Characteristics

The proposed Project consists of the construction of an up to approximately 300,000 square foot building with gallery, theater, education, office, and restaurant functions. The building will house the LMNA. The proposed LMNA building will be 115 feet in height at its highest points and contain up to two levels of subterranean parking. The Project also calls for new landscaping surrounding and passing underneath the museum building, which will, in places, hover above the landscape.

Construction of the Project will involve the removal of Parking Lot 2 and Parking Lot 3. It will also involve the relocation of the existing Soboroff Field and associated outbuildings from their existing location to make way for a new subterranean parking structure with up to three levels of parking. The soccer field will be relocated directly south of its current location, to a new site at the northeast corner of Martin Luther King, Jr. Boulevard and Vermont Avenue, which currently contains a surface parking lot. Jesse Brewer Jr. Park, at the north end of the Project Site, will receive new landscaping and playground equipment.

3. Regulatory Framework

3.1 Definition of Historical Resources

According to Section 21084.1 of the California Public Resources Code, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. A "substantial adverse change" means "demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."[2]

CEQA defines "historical resource" as a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources. In addition to properties listed in the California Register, the following are also considered historical resources for the purposes of CEQA:

- Resources included in a local register of historic resources or identified as significant in a historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any resource determined eligible for listing under the criteria of the California Register of Historical Resources.[3]

Properties formally determined eligible for listing in the National Register of Historic Places are automatically listed in the California Register. Properties designated by local municipalities under local criteria may also be considered historical resources.

3.2 Historic Designation Criteria

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. Created under the auspices of the National Historic Preservation Act of 1966, the National Register is administered by the National Park Service (NPS) and includes listings of buildings, structures, sites,

[2] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[3] Ibid.

objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. As described in National Register Bulletin 15: *How to Apply the National Register Criteria for Evaluation*, in order to be eligible for the National Register, a resource must both: (1) be *significant,* and (2) retain sufficient *integrity* to adequately convey its significance.[4]

Significance is assessed by evaluating a resource against established criteria for eligibility. A resource is considered significant if it satisfies any one of the following four National Register criteria:[5]

A. Associated with events that have made a significant contribution to the broad patterns of our history;

B. Associated with the lives of significant persons in our past;

C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction;

D. Has yielded, or may be likely to yield, information important in prehistory or history.

Once significance has been established, it must then be demonstrated that a resource retains enough of its physical and associative qualities – or *integrity* – to convey the reason(s) for its significance. Integrity is best described as a resource's "authenticity" as expressed through its physical features and extant characteristics. Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by the NPS:[6]

- Location (the place where the historic property was constructed or the place where the historic event occurred)

- Setting (the physical environment of a historic property)

[4] National Park Service*, National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, 1990, revised 1991, 1995, 1997.
[5] Some resources may meet multiple criteria, though only one needs to be satisfied for National Register eligibility.
[6] These seven aspects are used to evaluate integrity in all resource types, including individual buildings, structures, sites, objects, and historic districts.

- Design (the combination of elements that create the form, plan, space, structure, and style of a property)
- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular manner or configuration to form a historic property)
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory)
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time)
- Association (the direct link between an important historic event/person and a historic property)

Integrity is evaluated by weighing all seven of these aspects together and is ultimately a "yes or no" determination – that is, a resource either retains sufficient integrity, or it does not.[7] Some aspects of integrity may be weighed more heavily than others depending on the type of resource being evaluated and the reason(s) for its significance. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after the reasons for its significance have been established.

Generally, a resource must be at least 50 years of age to be eligible for listing in the National Register. Exceptions are made if it can be demonstrated that a resource less than 50 years old is (1) of exceptional importance, or (2) is an integral component of a historic district that is eligible for the National Register.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is the authoritative guide to the state's significant historical and archeological resources. In 1992, the California legislature established the California Register "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[8] The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological and cultural significance; identifies historical resources for state and local planning purposes; determines

[7] National Register Bulletin 15, Section VIII: "How to Evaluate the Integrity of a Property."
[8] California Public Resource (CPR) Code, Section 5024.1 (a).

eligibility for historic preservation grant funding; and affords certain protections under CEQA. All resources listed on or formally determined eligible for the National Register are automatically listed in the California Register. In addition, properties designated under municipal or county ordinances, or through local historic resources surveys, are eligible for listing in the California Register.

The structure of the California Register program is similar to that of the National Register, but places its emphasis on resources that have contributed specifically to the development of California. To be eligible for the California Register, a resource (building, structure, site, object, or district) must first be deemed significant at the local, state, or national level under one of the following four criteria, which are modeled after the National Register criteria listed above:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

2. It is associated with the lives of persons important to local, California, or national history; or

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area state or the nation.[9]

Like the National Register, the California Register also requires that resources retain sufficient integrity to be eligible for listing. A resource's integrity is assessed using the same seven aspects of integrity used for the National Register. However, since integrity thresholds associated with the California Register are generally less rigid than those associated with the National Register, it is possible that a resource may lack the integrity required for the National Register but still be eligible for listing in the California Register.

There is no prescribed age limit for listing in the California Register, although California Register guidelines state that "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource."[10]

[9] California Public Resources Code SS5024.1, Title 14 CCR, Section 4852.
[10] California Office of Historic Preservation, *Technical Assistance Series #6,* 3.

Resources may be nominated directly to the California Register. They are also automatically listed in the California Register if they are listed in or have been officially determined eligible for the National Register. State Historic Landmarks #770 and forward are also automatically listed in the California Register.[11]

City of Los Angeles, Cultural Heritage Preservation Ordinance

The City of Los Angeles' Cultural Heritage Ordinance, enacted in 1962, lays out local regulations pertaining to the identification and protection of cultural and historical resources within the city. The Los Angeles City Council designates Historic-Cultural Monuments on recommendation of the City's Cultural Heritage Commission. Any individual or group may submit nominations for Historic-Cultural Monument status.

Under provisions guiding the preservation of historical resources, the City of Los Angeles has established a set of criteria under which a resource within the city can be found eligible for Historic-Cultural Monument status. Per Chapter 9 Section 22.171.7 of the City's Administrative Code, a historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historic or cultural significance to the City of Los Angeles, meaning that it meets one or more of the following criteria:

1. It reflects or exemplifies broad cultural, political, economic, or social history of the nation, state, or community; or

2. It is identified with historic personages or with important events in the main currents of national, state, or local history; or

3. It embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction; or

4. It is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.[12]

[11] State of California, Office of Historic Preservation, Department of Parks and Recreation, California Office of Historic Preservation, *Technical Assistance Series #5: California Register of Historical Resources: The List Process,* 1.
[12] City of Los Angeles Administrative Code, Section 22.171.7.

4. Historic Context and Site Development History

The Project Site is adjacent to Exposition Park, which was originally known as Agricultural Park. It is located within the larger University District neighborhood, named for its proximity to USC. Historically composed of single-family residences and smaller multi-family dwellings, the Project Site reflected a pattern of residential development similar to that of the rest of that neighborhood.

Street Names

With the exception of Vermont Avenue and Figueroa Street, the following streets bounding Exposition Park and the Project Site have changed names (in some instances, multiple times) since Agricultural Park was established in 1872. For clarity, this report uses only current street names.

- Exposition Boulevard was originally named Santa Monica Avenue. Between 1907 and 1922, it was renamed Exposition Boulevard.
- Martin Luther King Jr., Boulevard was originally Santa Barbara Avenue. The street was renamed Martin Luther King, Jr. Boulevard in 1983.
- Bill Robertson Lane was originally Agricultural Avenue. Between 1907 and 1922, the street was renamed Menlo Avenue, and in 2008, it became Bill Robertson Lane.
- In 1894, 39th Street was named San Bernardino Avenue. Between 1899 and 1910, the street had been identified as both Goodner Street and 46th Street. By 1910, it had become 39th Street.
- In 1894, Leighton Avenue was Bruen Street. Between 1902 and 1910, the street had been identified as both Inyo Street and 48th Street. By 1910, it was Leighton Avenue.

4.1 Development of Exposition Park

The origins of Exposition Park date to 1872, when James N. Thompson sold 160 acres of land in Section 7, Township 2, South Range 13 to the Southern District Agricultural Society.[13] The Society was composed of approximately 100 men who each contributed between $100 and $500 toward a fund of $12,500, which formed the capital stock of the organization. Between 1872 and 1879, the Society used the land as Agricultural Park, an agricultural fairground where local farmers could showcase their prize livestock and produce. However, the venture proved unsuccessful, and by 1879, the park's mortgage was foreclosed. In order to maintain the property as a park, the Society, with the purpose of securing State aid, requested that the Legislature pass a law dividing California into districts and providing for the organization of district agricultural associations.[14] In May of 1880, California's Sixth District Agricultural Association was formed to oversee agricultural land in Los Angeles, San Diego, San Bernardino, Ventura, Santa Barbara, and Inyo counties. In order to relieve Agricultural Park of debt, portions

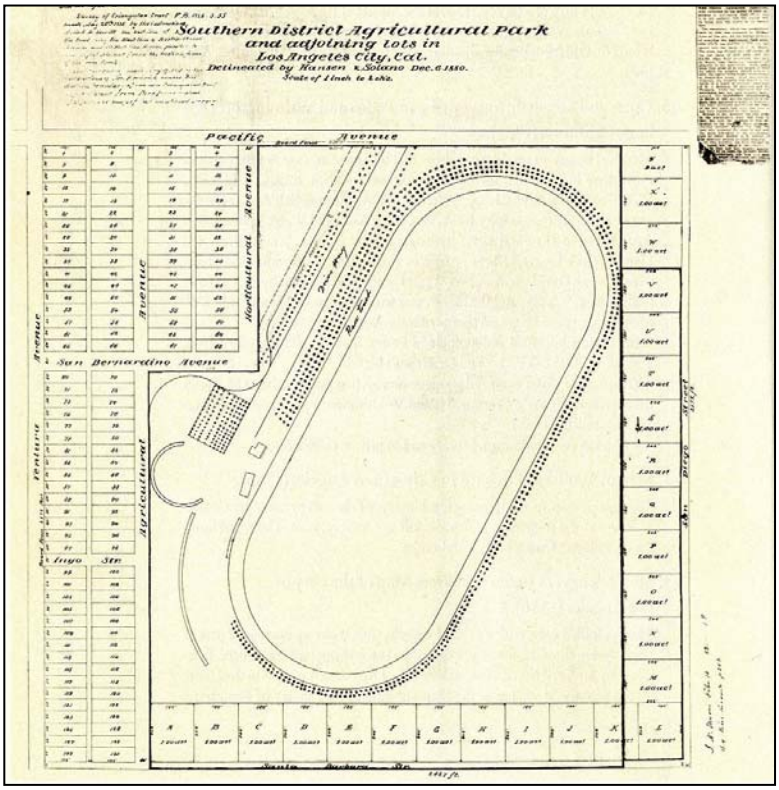


Figure 2. Map of Southern District Agricultural Park and adjoining lots, by Hansen and Solano, 1880 (courtesy the Huntington Library, San Marino, California).

[13] Alverda June Brode, "History of the University Section, Los Angeles," *Annual Publication of the Historical Society of Southern California* 12, No. 2 (1922), 95.
[14] Lillian A. Van Aken, "History of Exposition Park," *Annual Publication of the Historical Society of Southern California* 9, No. 3 (1914), 244.

of land along the perimeter of the park that were deemed "not necessary for the permanent use of the association" were subdivided and sold for $100 each.[15]

It was not long until opportunists recognized the value of the parkland, located just outside Los Angeles city limits, and aimed to gain control over Agricultural Park. By the mid-1880s, entrepreneurs had established the park as a nexus of various illicit activities, including gambling, drinking, and prostitution. The park contained a two-story hotel with a billiards parlor, a track for horse races, stables, corrals, sheds, and other buildings and support structures. Nominal agricultural activities (small fairs and exhibits) occurred once or twice a year in "crude pavilions," but on the whole Agricultural Park was best known for its less savory offerings.[16] It proved very popular among Angelenos and prompted the extension of one of Los Angeles' first horse-drawn streetcar lines. Established in 1875, the Main Street & Agricultural Park Railroad line ran from City Hall down Main Street to Jefferson Boulevard, west on Jefferson to Figueroa Street, and south on Figueroa to the park. Horse barns were located adjacent to the park, and a new horse would be switched in every time a car made a round trip.[17]

Around the same time Agricultural Park was becoming known as a recreational hotbed, USC was established just a few blocks north of the park, in a larger area that would become known as the University District (roughly bordered by Jefferson Boulevard to the north, Martin Luther King, Jr. Boulevard to the south, Figueroa Street to the east, and Arlington Avenue to the west; the western boundary of USC itself is Vermont Avenue, but as shown in Figure 3 below, the residential area associated with it extended farther to the west). Development of the University District, previously known simply as West Los Angeles, coincided with the establishment of Agricultural Park in the early 1870s. Following the University District's 1899 annexation by the City of Los Angeles and the subsequent improvement of the area's infrastructure, residential growth began to accelerate, and the area was quickly filled with single-family and small-scale multi-family dwellings. The district had largely been developed by the 1930s.

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[15] Van Aken, 245; "Exposition Park Called Plague Spot Years Ago": Early Days Remembered as Agricultural Association Celebrates 75th Anniversary" *Los Angeles Times*, October 23, 1955, A2.

[16] "Exposition Park Called Plague Spot Years Ago."

[17] Dorothy Marshall, "When Horses Kicked Up Dust on Spring Street," *Los Angeles Times*, August 13, 1933, H5.

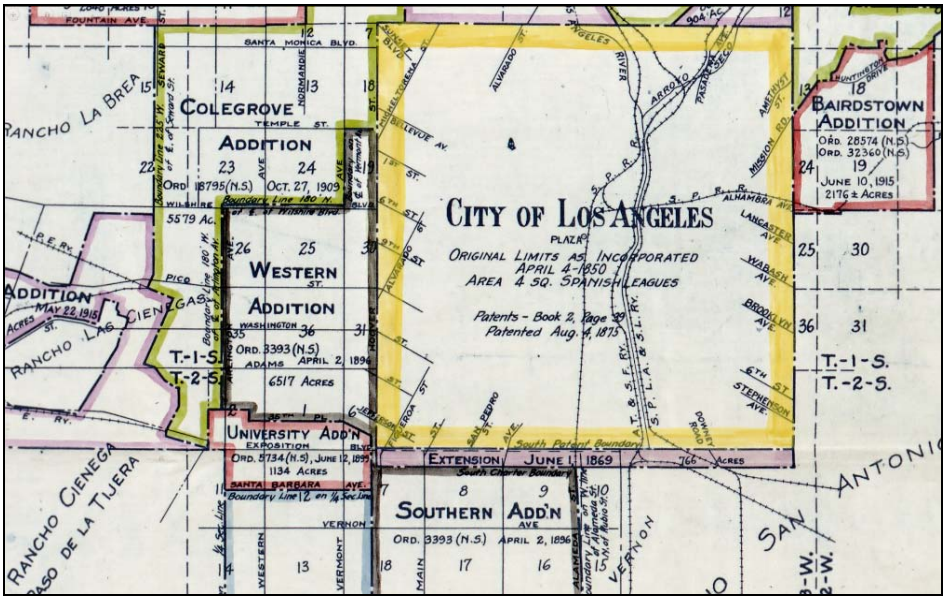


Figure 3. Map of territory annexed to the City of Los Angeles, 1781-1916. The University Addition (bottom left) was annexed in 1899 (courtesy Library of Congress Online Catalog).

Originally located as it was on the outskirts of the city, the University District/West Los Angeles area primarily contained ranches, farms, and orchards, and had little in the way of sustained residential development. After USC was established in 1880, a number of wealthy, conventionally respectable, and religious residents moved to the University District neighborhood (most were Methodist, as the university was originally affiliated with the Methodist Church).[18] Residential growth was slow at first, and through the 1880s, farms and orchards still comprised much of the district. With the expansion of Los Angeles's streetcar network in the 1890s, the neighborhood experienced increased growth, and a number of businesses, including drug stores, groceries, clothing stores, and barber shops, were constructed.[19] Several Methodist and Episcopal churches were erected, and elementary schools, including Vermont, Norwood, and University (now Weemes), were established to serve the district's school-age population.[20]

Agricultural Park's reputation and undesirable influence on neighborhood children provoked University District residents to take action beginning in the 1880s. In 1888, a movement was started by Thomas Lloyd and other influential citizens in the community to incorporate the University District and adjacent territory as its own city in order to bring Agricultural Park within the district's

[18] Curtis C. Roseman, et. al., *A University and a Neighborhood: University of Southern California in Los Angeles, 1880-1984* (Los Angeles: Figueroa Press, 2006), 16-17.
[19] Roseman, et. al., 40.
[20] Roseman, et. al., 39.

domain and "correct abuses on the grounds."[21] The attempted incorporation of University District failed due to the power and influence of those profiting from the park's activities.

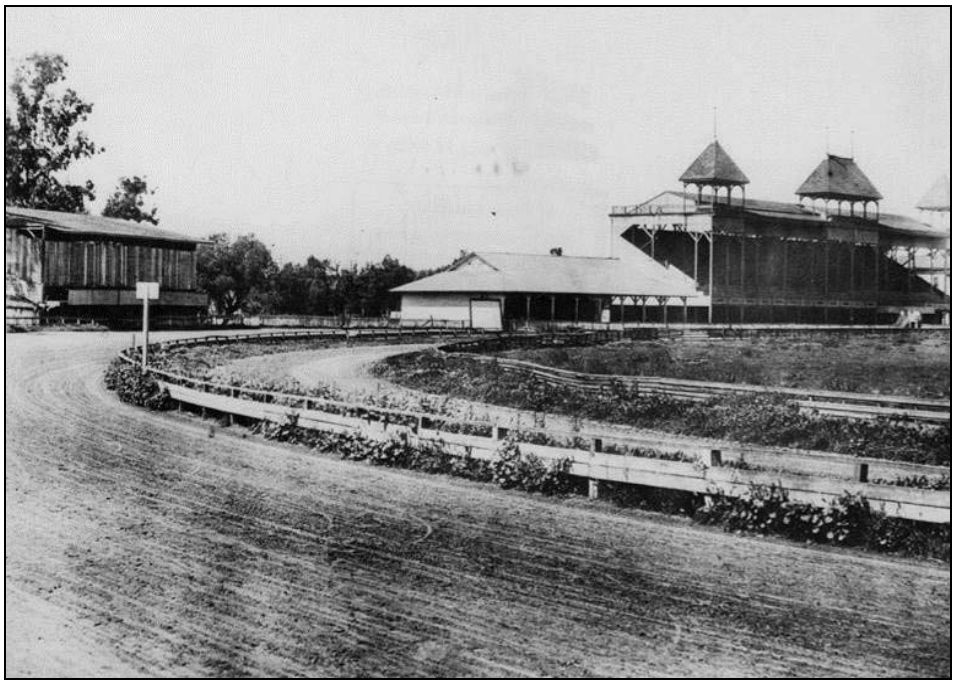


Figure 4. Agricultural Park racetrack, ca. 1900 (courtesy waterandpower.org).

In 1895, an amendment to the 1880 law that created the State agricultural districts was passed, allowing the districts to privatize and repealing the Sixth District's control over the park. The Agricultural District Number Six corporation was formed, and a new Board of Directors was chosen to oversee park activities. It was at this time that Agricultural Park saw new heights of scandalous activity, spearheaded primarily by lessee Francis D. Black. He took full advantage of the site's location outside the city's jurisdiction and expanded its offerings of saloons, brothels, and gambling halls; he or a fellow concessionaire also constructed a large grandstand at the racetrack.[22] Black added the gruesome sport of dog coursing to the standard offerings of horse, greyhound, camel, bicycle and automobile racing, which proved very popular. During the 1890s height of the park's popularity, car service on the Main Street & Agricultural Park streetcar line was increased to a capacity of 2,000 people an hour, with cars leaving for the park

[21] Brode, 98.

[22] Van Aken, 246; Historic Resources Group, *Los Angeles Memorial Coliseum Historic Resources Technical Report* (prepared for Latham & Watkins, LLP, 2015), 20; Sanborn Fire Insurance Map 1894 (Vol. 1 Sheet 40b).

every five minutes.[23] In 1897, the line was electrified as horse-drawn streetcars fell out of favor.[24]

Largely in response to the intensifying use of Agricultural Park, the University District community made a second push to bring the district under some kind of municipal oversight; this time the goal was annexation by the City of Los Angeles. Led by USC law professor and Sunday school teacher William M. Bowen, the community prevailed in 1899 and became part of the City. However, the Agricultural District Number Six Board of Directors refused to forego control of the park, prompting Bowen to file a lawsuit against the Board for "the recovery of the land for the benefit of the people."[25] The California Supreme Court ruled in favor of Bowen in 1908, and the park became public property once again. A year later, California's Sixth District Agricultural Association regained control of the park, with agreements by the County and City of Los Angeles to jointly develop the land.[26]

In 1910, the property was officially renamed Exposition Park, and William Bowen was elected President of the Sixth District's Board of Directors.[27] Its proponents envisioned it as a public park with an exposition building and museum for the benefit of all. The north half of the park was planned around a Beaux Arts-style sunken garden that would be bounded by a museum, exposition building, and armory, with a grand entrance off of the newly christened Exposition Boulevard. The south half of the site was planned for recreational use. In order for the new park plan to be realized, the massive Agricultural Park track, which stretched from the southeast to the northwest corners of the property and encompassed nearly the entire acreage of the site, was demolished. A new open track running parallel to Martin Luther King, Jr. Boulevard was constructed in the south half of the park. Between 1911 and 1921, the Exposition Park track and brick grandstand operated as a popular automobile speedway and horse-racing venue. Recreational facilities, including tennis courts, a polo field, and football and baseball grounds were constructed within the track at its west end. Lawn bowling alleys and roque grounds were erected north of the track, and a field house with a swimming pool

[23] "A Brutal Sport Hounded to Extinction," The Daily Mirror: Los Angeles History, *Los Angeles Times*, July 19, 2009, http://latimesblogs.latimes.com/thedailymirror/2009/07/a-brutal-sport-hounded-to-extinction.html.
[24] Nathan Masters, "L.A.'s First Streetcars Were Horse-Powered," *KCET*, December 6, 2012, https://www.kcet.org/shows/lost-la/las-first-streetcars-were-horse-powered.
[25] "Exposition Park Called Plague Spot Years Ago."
[26] Van Aken, 249.
[27] "Exposition Park Called Plague Spot Years Ago."

and bathhouse were constructed west of it.[28] In 1926, new bowling greens and a clubhouse opened at the southwest corner of the park, near the intersection of Martin Luther King, Jr. Boulevard and Bill Robertson Lane.[29]

On December 17, 1910, ceremonies were held for the laying of the cornerstones of the State Exposition Building and the Los Angeles County Museum of History, Science, and Art.[30] The Museum, located west of the sunken garden, was designed by the architecture firm Hudson & Munsell, and the Exposition building, located south of the garden, was designed by architect William D. Coates, Jr. The Museum and Exposition building were both completed in 1913, and Exposition Park was formally dedicated on November 6. The ceremony coincided with the inauguration of William Mulholland's Owens River aqueduct (which opened a day earlier). A large fountain at the center of the park's sunken garden was erected in the 1920s to commemorate the aqueduct. The State Armory, which served as the garden's eastern border and was the last of the institutional buildings to be constructed, was designed by architect J.W. Wollett and opened in 1914.



Figure 5. Los Angeles County Museum of History, Science, and Art (Natural History Museum), 1926 (courtesy USC Digital Library).

[28] "Ground is Broken for Splendid State Armory," *Los Angeles Times*, December 8, 1912, VI1; R.A. Wynne, "Tennis and Polo Center Soon at Exposition Park," *Los Angeles Times*, September 13, 1913, III4.
[29] "Bowlers to Open New Park Club," *Los Angeles Times*, September 6, 1926, A6; the Exposition Clubhouse is still extant, though the bowling greens have been demolished.
[30] Van Aken, 251.

Upon completion of Exposition Park's cultural institutions in its northern half, Bowen next sought to secure a major regional athletic stadium, which would comprise most of the southern portion of the park. The Los Angeles Memorial Coliseum opened in 1923 on the graveled grounds of the former Exposition Park track and field; it was designed by noted Los Angeles architects John and Donald Parkinson. In addition to being the home stadium for the USC football team since its completion, the Coliseum was the center of the 1932 and 1984 Olympic Games (the structure was enlarged in 1930 for the 1932 Olympics).



Figure 6. Bird's eye view of Exposition Park, prior to the Coliseum's construction, 1918 (courtesy USC Digital Library).

In preparation for the 10th Olympiad in 1932, a number of upgrades took place at the park. The Los Angeles Swimming Stadium, located south of the Coliseum, was constructed for Olympic swimming, water polo, and diving events. The Museum of History, Science, and Art, which had been tremendously successful from its inception, received large additions in 1925 and 1930. These more than tripled the building's size and created a new primary entrance at its south façade, just in time for the Games.[31] In addition to the new construction and enlargement of buildings, the park underwent various landscape and hardscape improvements, including the planting of the sunken rose garden and other formal plantings; the construction of sidewalks and roadways; and the completion of a Memorial Gateway, consisting of large monoliths with low-relief sculptures by artist Bartolomeo Mako fronting on Exposition Boulevard. In 1925, an allée of deodar cedars flanked by sidewalks and roadways was established as the eastern approach to the Coliseum. The allée became known as Christmas Tree Lane in the mid-1930s when the trees were first decorated with lights for the holidays.[32]

[31] National Register of Historic Places, Natural History Museum, Los Angeles, Los Angeles County, National Register #19750304.
[32] Historic Resources Group, 21.

Exposition Park's civic, cultural, and recreational institutions experienced increased development in the post-World War II period, which has continued through the present. In 1960, the 450-seat Jean Delacour Auditorium was added to the Museum, and in 1965, the institution's Art Division relocated to new facilities in the city's Miracle Mile district (now the Los Angeles County Museum of Art), enabling the expansion of the Science and History Divisions. The Museum's $7.2 million expansion and modernization program included new additions to the building in 1974.[33] The State Exposition Building was remodeled in 1951 and renamed the California Museum of Science. The building experienced multiple additions in the 1960s and 1980s, and was almost completely demolished between 1996 and 1998; only the original north elevation of the building remains.[34] In 1983, the Armory (by then part of the Museum) saw the addition of a Frank Gehry-designed Aerospace Museum at its south end. In 1984, the California African-American Museum was erected at the east end of the park. It was remodeled in 2003, with plans for future expansion. In 2002, the Aerospace Museum was renovated and renamed the Air and Space Gallery, and a new Exposition Park EXPO Center, IMAX Theatre, and the Science Center/Ted Alexander Elementary School were constructed. Upgrades to parking facilities and infrastructure are ongoing.[35]

Between the 1932 and 1984 Olympic Games, the Coliseum served as home field for the professional sports franchises of the Los Angeles Rams (1946-1979 and beginning again in 2016) and as the temporary home of the Los Angeles Dodgers while their Chavez Ravine stadium was being constructed (completed in 1962). In addition to hosting sporting events, the Coliseum has been used for concerts, religious services, pageants, and political events, including John F. Kennedy's acceptance of the Democratic Party's nomination for President in 1960. To accommodate the Coliseum's increased parking needs, the park acquired 63 individual lots along its western perimeter in 1951, which provided some 3,500 additional parking spaces on site.[36] The Swimming Stadium continued to be a major aquatic venue in the postwar period. It was the home pool for USC in the 1950s and '60s, and hosted numerous international meets sponsored by the Southern California Swimming Association.[37] The Swimming Stadium's renovation in 2003 added a three-story recreation center to the complex, complete with two

[33] National Register #19750304.
[34] Historic Resources Group, 36.
[35] Historic Resources Group, 22.
[36] "Razing Operations to Begin on Project: 6th Agricultural District to Provide Space for 3500 Cars at Football Games," *Los Angeles Times*, April 29, 1951, B1.
[37] Cecilia Rasmussen, "Swim Stadium Full of Success Stories," *Los Angeles Times*, March 16, 2008, http://articles.latimes.com/2008/mar/16/local/me-then16.

basketball courts, fitness rooms, meeting rooms, and a computer lab.[38] The Los Angeles Memorial Sports Arena, designed by noted Los Angeles architecture firm Welton Becket & Associates, opened in 1959; it was the first modern indoor sports arena built in the city. Apart from hosting several notable civic and sporting events, including the 1960 Democratic National Convention, the 1972 NCAA Men's Basketball Final Four, and the 1984 Summer Olympics, the arena was home court for the NBA Los Angeles Lakers from 1960 to 1967, the NBA Los Angeles Clippers from 1984 to 1999, and the USC Trojans basketball team from 1959 to 2006.[39] With the opening of the Staples Center (now home to the Lakers, Clippers, WNBA Sparks, and NHL Kings) in 1999 and USC's Galen Center in 2006, use of the Memorial Sports Arena declined. In May of 2016, Los Angeles City Council approved the construction of a $250 million, 22,000-seat soccer stadium in place of the Memorial Sports Arena; it was demolished in September 2016.[40]

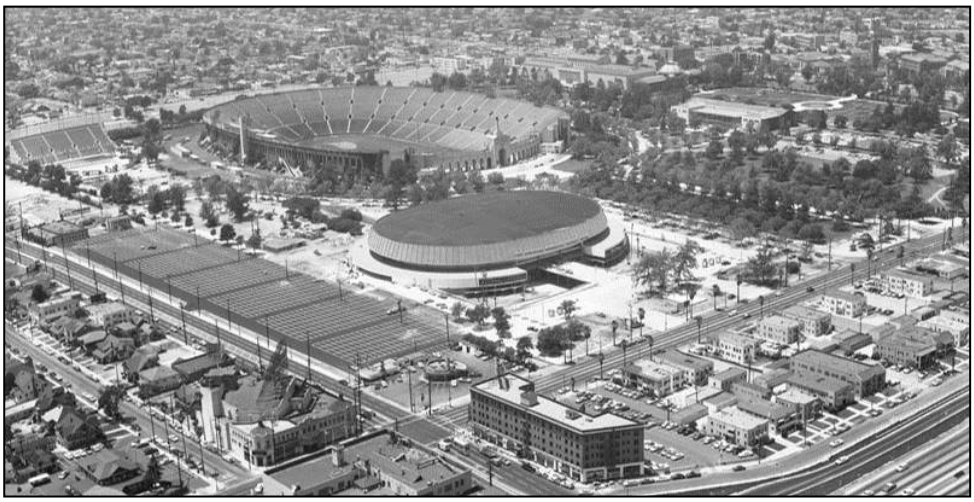


Figure 7. Bird's eye view of the southeast end of Exposition Park with Los Angeles Memorial Sports Arena in the foreground, 1959 (courtesy Los Angeles Public Library).

[38] "Swimming in L.A.," *LA84 Foundation/John C. Argue Swim Stadium*, accessed August 26, 2016, http://swimminginla.com/post/814068414/laswimstadium.
[39] Historic Resources Group, 26-27.
[40] Bianca Barragan, "LA's Getting a New Soccer Stadium in Exposition Park," *Curbed Los Angeles*, May 6, 2016, http://la.curbed.com/2016/5/6/11612920/los-angeles-soccer-stadium-exposition-park.

4.2 Development of the Project Site

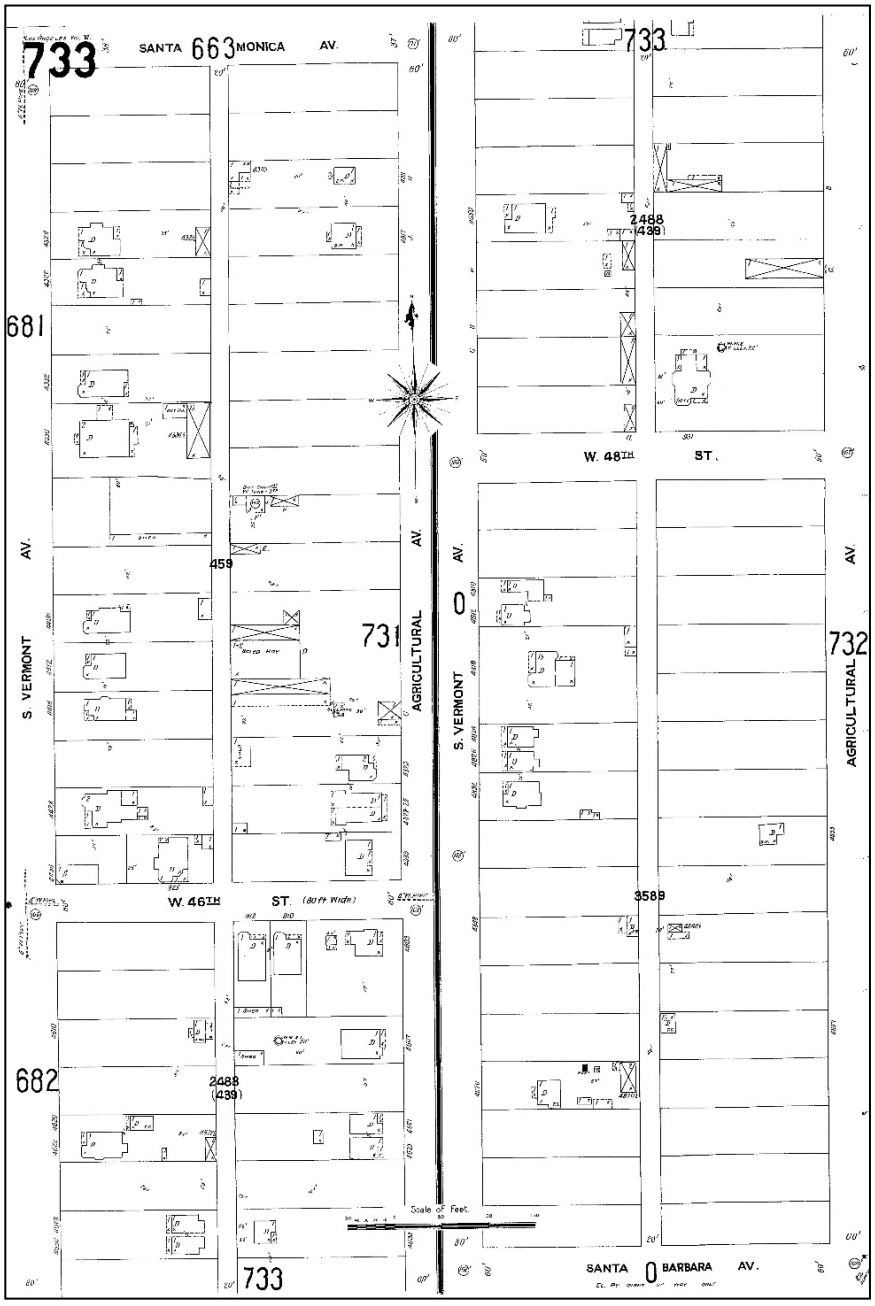


Figure 8. Sanborn Fire Insurance map of the Project site area, 1907. The left side depicts the north half of the Project Site, and the right side depicts the south half. Note: the building footprints marked with "Xs" indicate horse barns, stables, and other ancillary structures.

The Project Site is located on land originally sold to the Southern District Agricultural Society as part of the 160-acre Agricultural Park Tract. In 1880, the land comprising the Project Site was part of the acreage that was subdivided into individual parcels and sold in order to relieve the park of debt accrued since its opening. Upon the land's subdivision, several one- and two-story single-family residences and horse barns were constructed; the 1894 Sanborn fire insurance

map shows some of the land remained undeveloped for cultivation. The presence of stables, a stockyard, windmills with water tanks, and outhouses shown on Sanborn Fire Insurance maps of the area between 1894 and 1907 testify to the rural nature of the Project Site at that time. As the neighborhood continued to expand through the 1910s, most of the vacant lots were filled on the Project Site and the remaining farmland developed. Almost all of the lots fronting on Vermont Avenue were developed by the early 1920s, containing mostly residences with a few commercial properties (mostly stores and auto-oriented operations).[41] The eastern half of the Project Site, fronting on Bill Robertson Lane (then known as Menlo Avenue), saw slower residential construction and had several parcels which appear to have never been developed; most of its dwellings were clustered in the central portion, on either side of 39th Street, with undeveloped open parcels extending north and south from there.[42]



Figure 9. Aerial view of Exposition Park, 1918, view to southeast (courtesy USC Digital Library). The Project Site is outlined in dashed red.

[41] Sanborn Fire Insurance Maps, 1907 and 1922.
[42] Ibid.

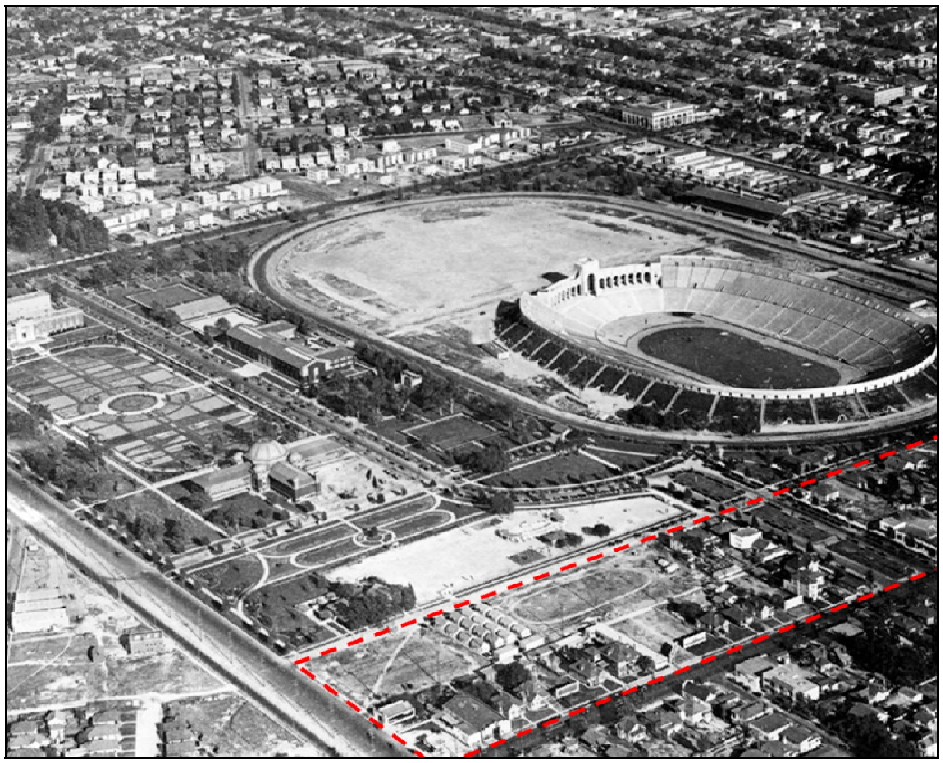


Figure 10. Aerial view of Exposition Park, ca. 1923, view to southeast (courtesy waterandpower.org). The northern part of the Project site is outlined in dashed red.

The nature of the Project site changed with the transformation of Agricultural Park into Exposition Park. From the 1920s through the 1940s, most of its single-family residences were replaced with multi-family property types allowing denser occupation: bungalow courts, duplexes, fourplexes, and larger apartment houses. This multi-family residential construction may have been a response to a growing demand for housing close to USC, as well as a response to the need for visitor housing during the 1932 Olympic games. In the northern part of the Project Site, most of the lots facing Bill Robertson between Exposition and 39th remained empty, with the exception of a double lot containing 16 small bungalows and a track of some kind (both ca. 1922).[43] In the southern part of the Project Site, most of the Bill Robertson-facing parcels saw development into multi-family properties including a cluster of seven four-flats at the corner of Leighton Avenue and several large two- and three-story apartment buildings south of that. As in the northern part, the southern part of the Project Site retained a number of empty parcels used as large surface parking lots; these would have served museum visitors and attendees of football games and other events at the Coliseum as well as those attending Olympic events.[44] The Vermont-facing parcels of the Project

[43] Aerial photo, Water and Power Associates, ca. 1923; Sanborn Fire Insurance Map, 1922.
[44] Sanborn Map Company 1922; aerial photograph of Coliseum, 1932 (Los Angeles Public Library Photograph Collection).

Site were completely redeveloped during this time into commercial/industrial (predominantly automotive) properties with some multi-family properties; only a few single-family residences remained.

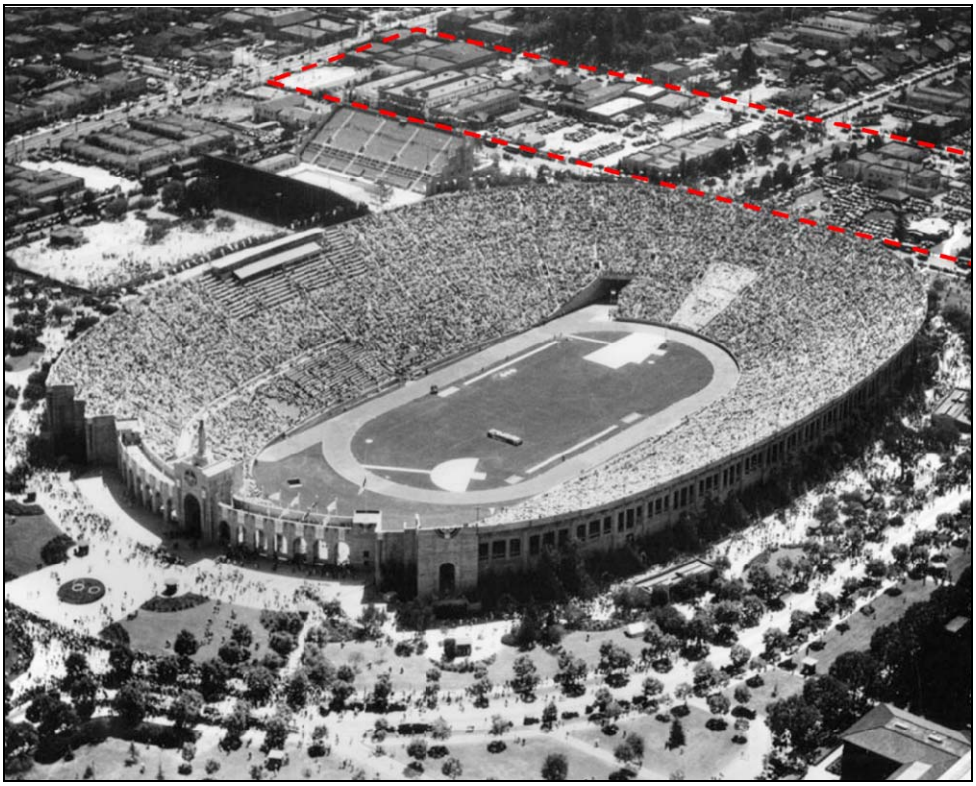


Figure 11. Aerial view of Coliseum, 1932, view to southwest (courtesy Los Angeles Public Library). The southern part of the Project Site is outlined in dashed red.

With the increased use of the Coliseum for various sporting events in the postwar period, the need for even more parking facilities became apparent. In 1947, the Sixth District Agricultural Association obtained a $2 million appropriation to begin buying lots along the western perimeter of the park for parking. In 1951, the Sixth District acquired approximately 63 parcels bounded by Exposition and Martin Luther King, Jr. Boulevards, Bill Robertson Lane, and Vermont Avenue. The majority of buildings in and near what is now the Project Site were either relocated or razed to make way for surface parking, and the existing empty lots were paved and lined as well. A few bungalow courts and larger apartment buildings remained, largely due to the cost of acquiring them and the continued need for housing adjacent to the park and USC.[45] At least five multi-family buildings remained on the Project Site until the 1980s-1990s: a bungalow court and two apartment houses north of 39th Street, and two large apartment houses

[45] "Razing Operations to Begin on Project: 6th Agricultural District to Provide Space for 3500 Cars at Football Games," *Los Angeles Times*, April 29, 1951, B1.

at the Project Site's southern edge.[46] But on the whole, the Project Site has been characterized by the absence of buildings and the presence of large surface parking lots serving Exposition Park since the early 1950s.

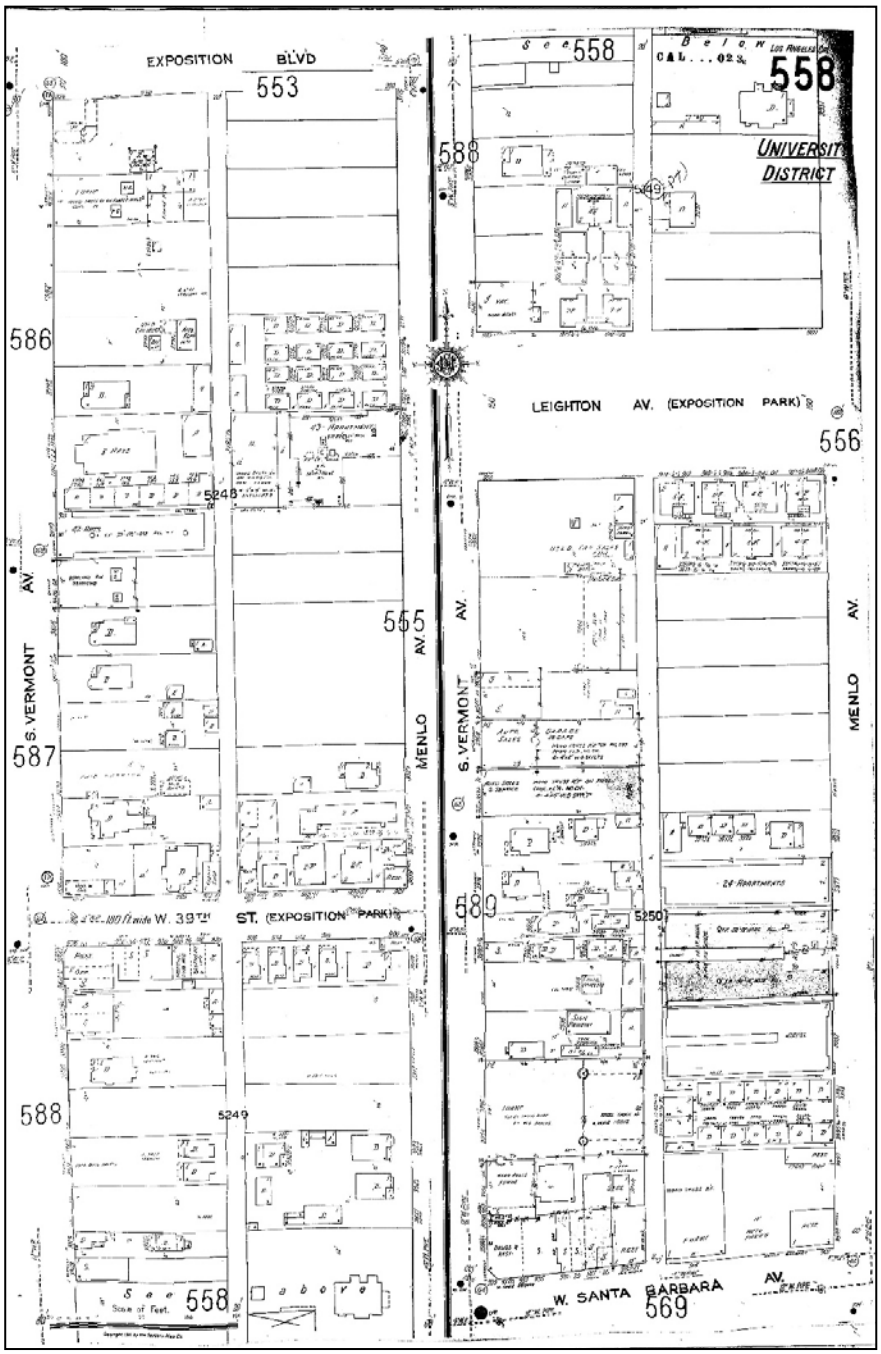


Figure 12. Sanborn Fire Insurance map of the Project site area, 1950 (showing the height of development, before most of the multi-family properties fronting on Bill Robertson were removed). The left side depicts the north half of the Project Site, and the right side depicts the south half.

[46] Los Angeles Department of Building and Safety, Building Permits; Historic Aerials, 1980, 1989, 1994, 2003, *NetrOnline*, accessed February 24, 2017, http://www.historicaerials.com/.

By the late 1960s, concerns had been raised regarding the amount of landscaped space that had been paved for parking at Exposition Park. In the 1992 *California Museum of Science and Industry Master Plan*, the architecture firm Zimmer Gunsul Frasca Partnership proposed encircling the park with tree-shaded promenades and anchoring the park's four corners with smaller parks that would serve as community gathering places. This would help Exposition Park to "function more like a park and less like a parking lot."[47] In 1998, a triple allée of trees was planted along the western edge of the Project site, forming a setback between surface parking and Vermont Avenue. Also in 1998, the parcels at the northern edge of the Project Site were developed into Jesse Brewer Jr. Park. In 2009, the Soboroff Field soccer facility was completed in the southern portion of the Project Site. The rest of Project site has largely remained unchanged since the 1990s, when its few remaining buildings were replaced with surface parking lots.

Chronology of the Project Site

1880 ca.	Approximately 130 parcels (roughly 54 of which comprised Parking Lots 2 and 3) were subdivided along the west side of Agricultural Park and sold to pay off the park's debt.
1880-1907	Single-family dwellings and horse barns were constructed on the blocks bounded by Exposition Blvd., Martin Luther King, Jr. Blvd., Bill Robertson Ln., and Vermont Ave.; most of the development fronted on Vermont.[48]
1922-1923	A cluster of bungalow units fronting on Bill Robertson Ln. and a track of some sort were constructed north of 39th Street.[49]
1923-1924	A bungalow court and a 47-unit apartment building (originally the Dolclare Apartments) fronting on Vermont Ave. were constructed north of 39th St.[50]
Mid-1920s-40s	Many of the existing single-family residences were replaced with multi-family residences, and undeveloped lots were developed as multi-family properties including apartment houses like the 1928 Casa Loma Apartments and four-flats as well as bungalow courts

[47] Amy Wallace, "Exposition Park Plan Exhibits a Lush New Look," *Los Angeles Times*, July 13, 1992, VCB6.
[48] Sanborn Fire Insurance Maps, 1894 and 1907.
[49] Aerial photo, Water and Power Associates, ca. 1923; Sanborn Fire Insurance Map, 1922.
[50] Los Angeles Department of Building and Safety, Building Permits, 3777-3783 Menlo Ave., 3796-3798 Vermont Ave., 3800 Vermont Ave.

	and duplexes; Parcels fronting on Vermont Ave. were totally developed with commercial/industrial (predominantly automotive) properties with some multi-family residences joining the few remaining single-family properties.[51]
1947	As demands for parking increased in the postwar period, particularly to accommodate sporting events at the Coliseum, the Sixth District obtained a $2 million appropriation to begin acquiring lots along the perimeter of the park for parking.[52]
1951	The majority of the buildings on the Project Site were bought and razed to accommodate more parking;[53]
Mid-1960s	Ficus trees planted in what was then the median of 39th Street.[54]
1989-2003	The last five multi-family properties, including a bungalow court and two apartment houses in the northern portion and two apartment houses in the southern portion, were razed and replaced with parking lots.[55]
1998	A tree-lined promenade was added along the western edge of the Project site, forming a setback between Vermont Ave. and the surface parking. Parking Lot 3 expanded south, removing the north lane of 39th Street and connecting with the former median planted with ficus trees.[56] Jesse Brewer Jr. Park was dedicated at the northern end of the Project Site.

[51] Sanborn Fire Insurance Maps, 1922 and 1950; Aerial photo of Coliseum area 1932, Los Angeles Public Library; Los Angeles Department of Building and Safety, Building Permit: 3789-3795 Menlo Ave.
[52] "Exposition Park Called Plague Spot Years Ago."
[53] "Razing Operations to Begin on Project: 6th Agricultural District to Provide Space for 3500 Cars at Football Games," *Los Angeles Times*, April 29, 1951, B1.
[54] Historic Aerials, 1964 and 1972, *NetrOnline*, accessed November 10, 2016, http://www.historicaerials.com/.
[55] Historic Aerials, 1980, 1989, 1994, 2003, *NetrOnline*, accessed August 30, 2016, http://www.historicaerials.com/; Los Angeles Department of Building and Safety, Building Permits.
[56] Historic Aerials, 1994 and 2003, *NetrOnline*, accessed November 10, 2016, http://www.historicaerials.com/.

2009	The Soboroff Field soccer complex was completed near the south end of the Project Site.

5. Identification of Potential Historical Resources

5.1 Project Site Historical Resources

Previous Evaluations and Studies

The Project Site does not appear to have been previously evaluated for individual significance and/or eligibility against federal, state, and/or local criteria. It was included in Los Angeles' Citywide Historic Resources Survey (SurveyLA) of the South Los Angeles Community Plan Area (completed in 2012); no resources on the Project Site were documented as potential historical resources as part of SurveyLA.

Evaluation of Significance

The Project Site consists of a public park (1998), a soccer field with outbuildings (2009), and three paved, surface parking lots. New construction is proposed for the two parking lots (Parking Lot 2 and Parking Lot 3) occupying the center of the Project Site, crossed by 39th Street. All of the buildings and structures once present at this location have been removed, and the site has served as surface parking for Exposition Park since the early 1950s. Aside from the parking lots, the only visible components of the area for which new construction is proposed are Leighton Avenue and 39th Street (with its row of mature ficus trees); the streets have no historical significance. The trees (planted in the mid-1960s) are not associated with any earlier occupations or activities, as they post-date the parking lots themselves. The Project Site has never been formally part of Exposition Park, which historically had a western boundary of Menlo Avenue, today known as Bill Robertson Lane.

Given the absence of historic buildings and structures and its lack of historical association with Exposition Park, the Project Site is not eligible for listing in the National Register, the California Register, or as a Los Angeles Historic-Cultural Monument.

Therefore, there are no historical resources present on the Project Site.

5.2 Adjacent Historical Resources

The Project has the potential to impact two designated historical resources that are directly adjacent to the Project Site:

- Los Angeles Natural History Museum (listed in the National Register)
- Los Angeles Memorial Coliseum (listed in the National Register, as a National Historic Landmark, and as State Historical Landmark No. 960)

The Project Site is also directly adjacent to the previously-identified Exposition Park Historic District, which is roughly bounded by Exposition Boulevard, Figueroa Street, Bill Robertson Lane, and Martin Luther King, Jr. Boulevard.

The development and significance of these historical resources are discussed below.

Los Angeles Natural History Museum

Historical Background

The Los Angeles County Museum of History, Science and Art (now known as the Los Angeles Natural History Museum) was designed by architects Hudson & Munsell and constructed in 1913. It is located in the northwestern portion of Exposition Park, directly adjacent to the Project Site. It abuts Parking Lot 3 at its eastern border, across Bill Robertson Lane.

The Natural History Museum originally consisted of a large rotunda, which faced east toward the sunken garden, and three gallery wings that stretched north, west, and south. In 1925, a large addition added more exhibition space, and in 1930 a second addition doubled the size of the museum and reoriented its entrance from the rotunda to the south lawn. A west wing was added in 1960 and another to the north in 1974.

In 1961, the art collection was moved from the museum to the new Los Angeles County Museum of Art on Wilshire Boulevard, and the Los Angeles County Museum of History, Science and Art was renamed the Los Angeles Natural History Museum.

Designations

The Los Angeles Natural History Museum was listed in the National Register in 1975. It was listed under Criterion C for its distinctive Beaux Arts architecture and as the work of master architects Hudson and Munsell. No period of significance was identified in the nomination package.

Los Angeles Memorial Coliseum

Historical Background

The Los Angeles Memorial Coliseum was designed by architects John Parkinson and Donald B. Parkinson and constructed between 1921 and 1923. It is located in the southwestern part of Exposition Park, directly adjacent to the Project Site. It abuts Parking Lot 2 at its eastern border, across Bill Robertson Lane.

The original Coliseum structure was enlarged for the 1932 Olympic Games in Los Angeles. John and Donald B. Parkinson designed the expansion, which took place between 1930 and 1931. A series of additions and repairs were undertaken beginning in 1946 through the mid-1950s by the Pasadena architectural firm of Bennett & Bennett. The Coliseum was used in the 1984 Olympic Games but appears not to have received any major alterations in association with this event. A renovation project in 1993 resulted in the lowering of the field, removal of the track, addition of fourteen new rows of seats at the lower tier, and reconstruction of the field wall.[57]

Designations

The Los Angeles Memorial Coliseum is designated as a National Historic Landmark (NHL), as State Historical Landmark #960, and is listed in the National Register of Historic Places (1984). It is significant under National Register Criterion A for its significant association with two Olympic Games (1932 and 1984) and numerous other sporting and civic events; and Criterion C as a major work of master architects John and Donald B. Parkinson.

The period of significance for the Coliseum is 1932-1984.

Exposition Park Historic District

Historical Background

The Exposition Park Historic District contains a collection of publicly owned buildings, structures, objects and landscapes in an area roughly bounded by Exposition Boulevard, Figueroa Street, Bill Robertson Lane, and Martin Luther King, Jr. Boulevard. The collection of resources within the district's boundaries are used for museum and recreational purposes, and relate to multiple periods of development of Exposition Park from 1910-1932, which is the historic district's

[57] Historic Resources Group, 32.

period of significance (according to the 1993 Historic Resources Inventory/Evaluation Form, prepared by Myra L. Frank & Associates [MFA]).[58]

The historic district contains two collections of resources that are distinguished by their use, scale, location and materials. The first collection, the museum group, includes three museum buildings that face the sunken rose garden in a Beaux Arts inspired plan. These buildings include the Natural History Museum, Exposition/Ahmanson Building, and the Armory Building. All of these buildings are two stories in height and feature common exterior materials of red brick and terra cotta or concrete. The museum group is located in the northern portion of Exposition Park, near Exposition Boulevard.

The second collection of resources in the historic district is the recreational group, which includes the Memorial Coliseum, Swim Stadium, and Exposition Clubhouse. These resources relate to sports and recreational uses of the park and are located at the southern portion of the historic district. These buildings are distinguished by exposed concrete construction and Moderne architectural style (in the case of the Coliseum and Swimming Stadium). The Clubhouse is Spanish Colonial Revival in style and much smaller in scale than the other buildings of the recreational group.

According to the 1993 evaluation by MFA, the Exposition Park Historic District is significant to the Los Angeles community as its most prominent public gathering place for educational, cultural, and recreational activities. It contains the oldest museum buildings in the city and a rare Los Angeles example of an open public space designed in the Beaux Arts tradition. The historic district is also significant for its association with the 1932 Olympics, which utilized the buildings of the recreational group and resulted in several improvements to the campus as a whole.[59]

Designations

The Exposition Park Historic District was determined eligible for the National Register in a Historic Resources Inventory/Evaluation Form prepared by MFA for the 1993 California Museum of Science and Industry Master Plan EIR. In a letter dated June 15, 1993, the California Office of Historic Preservation (OHP) concurred with the findings of the evaluation in stating “it is the conclusion of this office that an historic district eligible for listing on the National Register exists

[58] Myra L. Frank & Associates, Historic Resources Inventory/Evaluation Form for the Exposition Park Historic District, May 14, 1993: 2.
[59] Ibid.

within the park."[60] In the letter, the OHP identified seven contributing resources within the historic district: the Exposition/Ahmanson Building, the Natural History Museum building, the California State Armory building, the Exposition Clubhouse, the Los Angeles Swimming Stadium, the Memorial Coliseum, and the Rose Garden.[61] In the 1993 inventory form, the historic district was given a California Historical Resource Status Code 3S1, which is defined as "appears eligible for separate listing [in the National Register]." Despite OHP concurrence in its 1993 letter, the historic district appears never to have received a formal determination from OHP or the Keeper of the National Register, as the district does not appear in the California Historical Resources Inventory System (CHRIS), maintained by OHP.

In 2001, MFA prepared a Historic Architectural Survey Report for the California Science Center/California African American Museum Parking Structure EIR, in which they reevaluated the Exposition Park Historic District for National Register eligibility. In this 2001 report, MFA concluded that new information had been gathered about the historical development of the park which had led them to conclude that the district is no longer eligible for the National Register. The MFA report states that the historic district may no longer meet National Register criteria because of alterations sustained between 1932 and 1992 that were not reported in their previous evaluation report (1993), and because of changes that had occurred within the district's boundary between 1993 and 2000, further diminishing the integrity of the district.[62]

A meeting about the Exposition Park Historic District among review agencies on August 9, 2000 resulted in no formal finding of National Register eligibility or ineligibility.[63] Therefore, based on the fact that OHP concluded that the historic district is eligible for the National Register in 1993 and has not provided a determination that states otherwise since that time, this document presumes that the district remains a historical resource for the purposes of CEQA.

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[60] Steade R. Craigo, AIA, Deputy State Historic Preservation Officer, State of California, Department of Parks and Recreation to Jeffrey N. Rudolph, Executive Director, California Museum of Science and Technology, June 15, 1993.
[61] Ibid.
[62] Myra L. Frank & Associates, State of California, Department of Parks and Recreation (DPR) 523a (Primary Record) and 523L (Continuation Sheets) forms, Exposition Park Historic District, prepared for the January 2001 Caltrans/FHWA review of the proposed California Science Center/California African American Museum Parking Structure.
[63] Myra L. Frank & Associates, Inc. *Historic Property Survey Report for the California Science Center/California African American Museum Parking Structure*, March 2001.

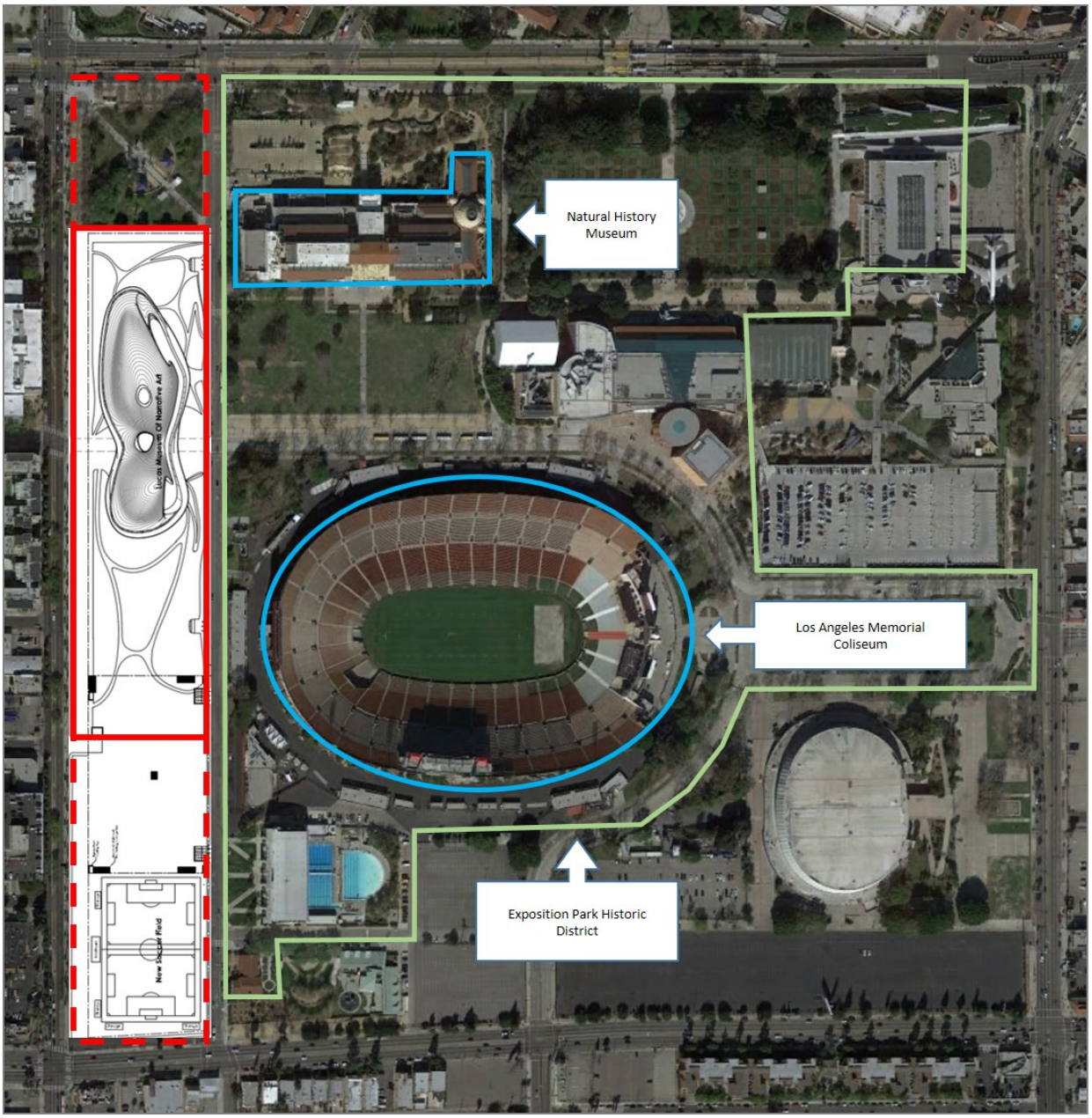


Figure 13: Historic resources adjacent to the Project Site, which is outlined in dashed red. The solid red line indicates the proposed area of new construction. Note that no above-ground buildings or structures will be constructed outside of the solid red line as part of the Project.

5.3 Historical Resources in Project Vicinity

In addition to historical resources directly adjacent to the Project Site, the following historical resources are in its vicinity:

- North and South Coliseum Drives with Christmas Tree Lane (determined eligible for the National Register)
- Exposition Park Rose Garden (listed in the National Register)
- Exposition Clubhouse (determined eligible for the National Register and City of Los Angeles Historic-Cultural Monument No. 127)
- Los Angeles Swimming Stadium (now the LA84 Foundation/John C. Argue Swim Stadium; determined eligible for the National Register and listed in the California Register)
- California Aerospace Museum (now the Air and Space Gallery; listed in the California Register)

The development and significance of these historical resources are discussed below.

North and South Coliseum Drives with Christmas Tree Lane

North and South Coliseum Drives (known today as Exposition Park Drive) with Christmas Tree Lane are located in the eastern portion of Exposition Park, directly east of the Coliseum. They consist of two parallel streets running on an east-west axis between the Coliseum and Figueroa Street. A landscaped median containing a stand of deodar cedar trees comprises "Christmas Tree Lane."

The *Historic Property Survey Report* prepared by MFA in 2001 for the California Science Center/California African American Museum reviewed the Parking Structure project under Section 106. It made a finding, with California Office of Historic Preservation (OHP) concurrence, that the combined North and South Coliseum Drives with Christmas Tree Lane is significant as part of the setting of the Coliseum and contributes to its National Register/National Historic Landmark designation under Criterion C. In particular, the lanes, with their formal,

landscaped allée, accentuate the view toward the Coliseum peristyle from the east.[64]

Exposition Park Rose Garden

The Exposition Park Rose Garden is located in the northern portion of Exposition Park. It forms a seven-acre quadrangle bounded by the Natural History Museum to the west, the State Armory to the east, the State Exposition Building to the south, and Exposition Boulevard to the north. The garden was originally designed by Landscape Architect Wilbur D. Cook, Jr. in 1913 as a simple, sunken garden surrounded by a low decorative brick wall. In 1928, George C. Robinson and Fred H. Howard transformed the landscape into the display rose garden that exists today. The garden is divided into four quadrants, each with its own wooden gazebo, with a circular water fountain in the center. More than 19,000 rose bushes are planted in the original 166 concrete lined rose beds.

In 1932, large concrete monoliths and benches were installed at the north boundary of the rose garden, flanking its entryway from Exposition Boulevard. Known as the Memorial Gateway, the walls contain bas reliefs of Olympics-related figures designed by artist Bartolomeo Mako.

The Exposition Park Rose Garden is listed in the National Register (1991).

Exposition Clubhouse

The Exposition Clubhouse is located at 3990 Bill Robertson Lane, at the southwestern edge of Exposition Park, near the northeast corner of Bill Robertson Lane and Martin Luther King, Jr. Boulevard. The Spanish Colonial Revival building was constructed in the 1920s as a clubhouse for Exposition Park. The building is now part of the EXPO Center, which is run by the City of Los Angeles Department of Recreation and Parks and houses the Ahmanson Senior Citizens Center.

The Exposition Clubhouse was determined eligible for the National Register in 1994 during Section 106 review after the Northridge Earthquake. It is also designated Historic-Cultural Monument #127 (1974) in the City of Los Angeles.

[64] Myra L. Frank & Associates, *Historic Property Survey Report for the California Science Center/California African American Museum Parking Structure.*

Los Angeles Swimming Stadium

The Los Angeles Swimming Stadium is located at 3900 Bill Robertson Lane, just north of the Exposition Clubhouse in the southwest portion of Exposition Park. The Swimming Stadium was constructed by the City of Los Angeles Playground and Recreation department in 1931 for use in the 1932 Olympic Games. The facility includes a concrete, Moderne style stadium and two pools.

The stadium was renovated in 2003, at which time much of its outdoor seating was covered with a new structure. It is known today as the LA84 Foundation/John C. Argue Swim Stadium.

The Swimming Stadium is listed in the California State Historic Resources Inventory (HRI) with a status code 2S2, which means it is an "Individual property determined eligible for the National Register by a consensus through Section 106 process. Listed in the California Register."[65]

California Aerospace Museum

The California Aerospace Museum (originally known as Aerospace Hall and now commonly known as the California Air & Space Museum of the California Science Center) is located in the northeastern portion of Exposition Park, near the corner of Exposition Boulevard and Figueroa Street. It is located directly south of what was originally the State Armory building, and east of the Rose Garden.

The California Aerospace Museum was designed by architect Frank Gehry between 1982 and 1984. It is listed in the California Register of Historical Resources (2012) under Criterion 3 as a seminal work of the internationally acclaimed architect.

[65] California State Office of Historic Preservation, Technical Assistance Bulletin #8: *User's Guide to the California Historical Resource Status Codes & Historic Resources Inventory Directory* (2004).

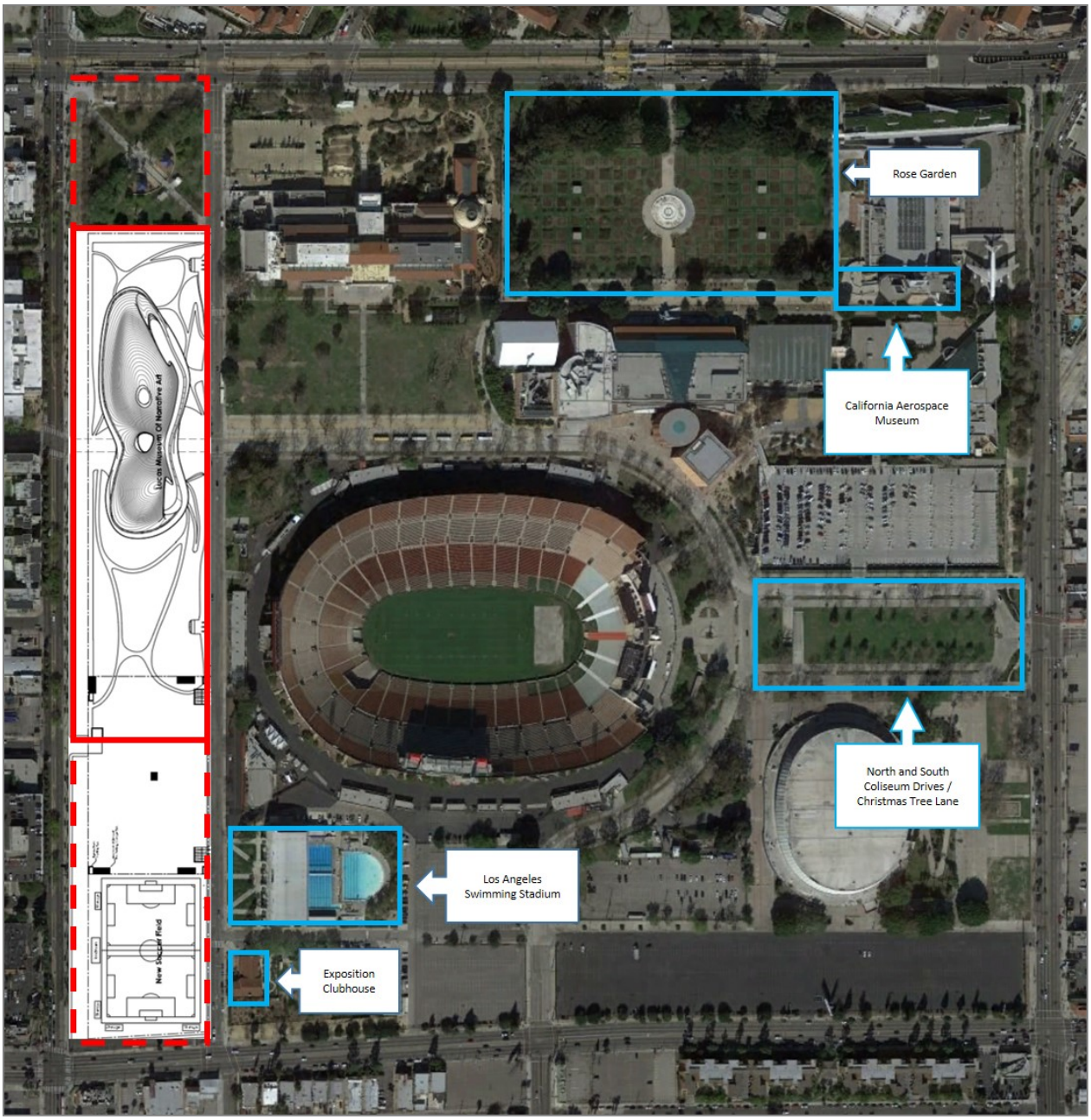


Figure 14: Historic resources in the vicinity of the Project Site, which is outlined in in dashed red. The solid red line indicates the proposed area of new construction. Note that no above-ground buildings or structures will be constructed outside of the solid red line as part of the Project.

6. Impacts Analysis

6.1 Summary of Findings

As noted above, the Project Site contains no buildings or structures, and its existing features (three paved parking lots, Jesse Brewer Jr. Park (1998), Soboroff Field (2009), two streets, and street trees) are not eligible for listing in the National Register or the California Register, or as a Los Angeles Historic-Cultural Monument. Therefore there are no historical resources present on the Project Site.

While the Project Site does not contain any historical resources, it is directly adjacent to three known historical resources:

- Los Angeles County Museum of History, Science, and Art (now the Natural History Museum)
- Los Angeles Memorial Coliseum
- Exposition Park Historic District

It is also in the vicinity of the following known historical resources:

- Exposition Park Rose Garden
- North and South Coliseum Drives with Christmas Tree Lane
- Exposition Clubhouse
- Los Angeles Swimming Stadium (now the LA84 Foundation/John C. Argue Swim Stadium)
- California Aerospace Museum (now the Air and Space Gallery)
- State Armory (now Wallis Annenberg Building for Science and Innovation)

6.2 Significance Threshold

A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. According to California CEQA Guidelines, a project has the potential to impact a historical resource when the project involves a “substantial

adverse change" in the resource's significance. Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." [66]

The significance of a historical resource is materially impaired when a project:

a) "Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources; or

b) "Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project by a preponderance of evidence that the resource is not historically or culturally significant; or

c) "Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA."[67]

According to the City of Los Angeles CEQA Thresholds Guide (2006, p. D.3-3 to D.3-4), a project would normally have a significant impact on historical resources if it would result in a substantial adverse change in the significance of a historical resource. A substantial adverse change in significance occurs if the project involves:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;
- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or

[66] CEQA Guidelines, Section 15064.5.
[67] CEQA Guidelines, Section 15064.5.

- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.[68]

6.3 Discussion of Potential Impacts

The proposed Project will not have a significant impact on historical resources. The following analysis of impacts in accordance with the City of Los Angeles CEQA Thresholds provides justification of this conclusion.

Demolition of a significant resource

The Project will not include the demolition of a significant resource.

The Project will include the demolition of two existing paved surface parking lots and the construction of an approximately 300,000 square foot museum in their place. It will also include improvements to the existing Jesse Brewer Jr. Park and the relocation of Soboroff Field to an area at the southern end of the Project Site that currently contains a surface parking lot. Jesse Brewer Jr. Park and Soboroff Field were constructed in 1998 and 2009, respectively, and are not significant historical resources. The ficus trees lining 39th Street date to the mid-1960s, after Parking Lots 2 and 3 were created. The surface parking lots are also not significant resources, and there are no additional significant resources on the Project Site. Therefore the Project will not include the demolition of a significant resource.

Relocation that does not maintain the integrity and significance of a significant resource

No significant resources will be relocated as part of the Project.

Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings

The Project does not include the conversion, rehabilitation, or alteration of a significant resource.

[68] City of Los Angeles CEQA Thresholds Guide (2006), D.3-3 to 3-4.

Construction that reduces the integrity or significance of important resources on the site or in the vicinity

The Project will not reduce the integrity or significance of important resources on the site or in the vicinity.

There are no historical resources on the Project Site; however, there are important resources in its vicinity. An analysis of the effect of the Project on each of these resources follows.

The following historical resources are directly adjacent to the Project Site:[69]

Natural History Museum

The Natural History Museum is located directly to the east of the Project Site, across Bill Robertson Lane. The northern portion of the Lucas Museum of Narrative Art building, which will be about 115 feet tall at its highest point, will be approximately 250 feet from the southwest corner of the Natural History Museum.

The National Register designation for the Natural History Museum focuses on the 1913 portion of the building, which has been expanded significantly with additions constructed in 1925, 1930, 1960, and 1974. The building has not been reevaluated for individual eligibility against local, state, or national criteria since the time of its designation.

The portion of the building nearest to the Project Site was constructed in 1960 and altered in 1974. The 1913 building is separated from the Project Site by these substantial additions.

Even if the building as a whole were significant, including all of its additions dating to the 1970s, its significance and integrity would still not be reduced by the Project. The Natural History Museum building has a long, axial footprint running east-west. The primary entrance is currently located on the south side of the building, facing an expansive lawn. Significant views of the building include the view north toward the main entrance from the south lawn, the view west toward the 1913 rotunda building from the Rose Garden, and the view south of the building from Exposition Boulevard. The portion of the building that faces west,

[69] Adjacent resources are defined as those historic resources with direct adjacency to new Lucas Museum of Narrative Art building. Although other historical resources are adjacent to the larger Project Site, because no above-ground development will occur in those areas, those historic resources are evaluated as being in the vicinity of the Project Site.

toward the Project Site, is utilitarian in function and contains no fenestration or architectural features. There is no significant view of the building that will be blocked by the proposed Project; currently, the building is barely visible from Vermont Avenue.

Furthermore, the Natural History Museum has never had any significant association with the Project Site. Historically, the museum was situated at the far western edge of Exposition Park, which culminated at Menlo Avenue (today's Bill Robertson Lane), and the Project Site remained residential in character until the 1950s. Any notable landscape features to the west of the 1913 Natural History Museum were removed with the construction of its additions in the 1920s, '30s, '60s and '70s. Construction of the Project will not change the setting of the Natural History Museum in such a way that its overall integrity is diminished; its integrity of setting has already been compromised.

Therefore, the Project does not have the potential to reduce the integrity or significance of the Natural History Museum.

Los Angeles Memorial Coliseum

The Los Angeles Memorial Coliseum is located directly to the southeast of the Project Site, across Bill Robertson Lane. The southernmost portion of the Lucas Museum of Narrative Art building, which will be about 115 feet tall at its highest point, will be approximately 250 feet from the northwest corner of the Coliseum.

The Los Angeles Memorial Coliseum is a large, elliptical building set on an east-west axis. The main entrance to the building is on its easternmost edge, facing Figueroa Street, and the approach to the building from the east is its primary view. The building's elaborate peristyle entrance continues to be its iconic public façade, and the allée formed by North and South Coliseum Drives (now Exposition Park Lane) and Christmas Tree Lane accentuate this view from the east. The building is also visible from Martin Luther King, Jr. Blvd., to the south, and from Bill Robertson Lane, to the west, although these views are secondary to the view from Figueroa. The Coliseum is about 500 feet from Vermont Avenue at its closest point, and although it is visible from Vermont, the view is largely obscured by vegetation and fencing from most angles. Because the Project Site originally contained single- and multi-family residential buildings (most of which were razed in the early 1950s to make way for surface parking), as well as commercial/industrial buildings fronting on Vermont, the Coliseum would not have been visible from Vermont during its historical period. Therefore, the view

from the west was never a significant view of the Coliseum. For these reasons, the Project will not block any significant views of the Coliseum from any angle.

Furthermore, the Coliseum has never had any significant association with the Project Site. Historically, the Coliseum was situated at the far western edge of Exposition Park, which culminated at Menlo Avenue (now Bill Robertson Lane), and the Project Site remained residential in character until the 1950s. The Coliseum is oriented toward the east, toward Figueroa Street, and its dominant landscape features, including North and South Coliseum Drives and Christmas Tree Lane, are all located to the east of the building. The land to the west of the building, including the Project Site, have never had any association with the Coliseum aside from providing surface parking for visitors in the present day.

Finally, construction of the Project will not change the setting of the Coliseum in such a way that its overall integrity will be diminished. Although the Project will introduce a large new building to the west of the Coliseum, the site elements with which the Coliseum has direct, historical association are to the east of the building, and these will remain unchanged.

Therefore, the Project does not have the potential to reduce the integrity or significance of the Los Angeles Memorial Coliseum.

Exposition Park Historic District

The Exposition Park Historic District is located directly to the east of the Project Site. Its western boundary, Bill Robertson Lane, is coterminous with the eastern boundary of the Project Site.

The National Park Service offers the following guidance for the evaluation of integrity of historic districts:

> For a district to retain its integrity as a whole, the majority of the components that make up the district's historic character must possess integrity even if they are individually undistinguished. In addition, the relationships among the district's components must be substantially unchanged since the period of significance.[70]

The historic district comprises seven contributing buildings and landscapes that are scattered throughout its boundary. Those with the closest adjacency to the Project Site include the Natural History Museum and the Coliseum. As described

[70] *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation,* U.S. Department of the Interior, National Park Service, 1990 (revised 1991, 1995, 1997).

above, the Project will not reduce the integrity or significance of either of these individual resources.

The Project Site has no historical association with the Exposition Park Historic District. The Project will not reduce the integrity of any of the historic district's component parts, nor will it change any of the spatial relationships between them.

The Project includes the construction of the LMNA building directly west of the historic district. At its highest point, the new building will be approximately 115 feet tall. It will be contemporary in design and will not be compatible in material or style with any of the buildings within the historic district. The district's contributing buildings do not represent a single unified architectural style; rather, they exhibit a wide range of styles including Beaux Arts, Moderne, and Spanish Colonial Revival. There are several non-contributing buildings within the historic district boundary that are contemporary in style, including perhaps most notably Frank Gehry's California Aerospace Museum (1982-1984). Therefore, Exposition Park is already a campus of both historic and contemporary institutional architecture without a common visual theme. The addition of a contemporary building outside of the district would not have an impact on the district in terms of the compatibility of and relationships between its component parts.

With the exception of the Coliseum, which is approximately 75 feet tall (from ground level), most of the contributing buildings in the historic district are two stories tall. The new LMNA building will exceed all of these buildings in height. However, as stated above, there are no significant views of the historic district or its contributors that will be blocked by the LMNA building.

The visual character of the Project Site has changed significantly since the period of significance of the historic district (identified as 1910-1932), with the removal of all above-ground resources (primarily single- and multi-family residences) in the early 1950s. Therefore, the setting of the historic district at its western edge has already changed significantly. Although the Project will introduce a new building adjacent to the Exposition Park Historic District, because the setting at this location has already changed, there will be no further reduction in integrity or significance of the historic district.

The following historical resources are in the vicinity of the Project Site:

Los Angeles Swimming Stadium and Exposition Clubhouse

The Los Angeles Swimming Stadium and Exposition Clubhouse is located to the east of the Project Site. The northwestern edge of the Swimming Stadium will be approximately 900 feet from the southernmost edge of the Lucas Museum of Narrative Art. A new subterranean parking structure will be constructed directly to the west of the Swimming Stadium and northwest of the Clubhouse, across Bill Robertson Lane.

The Los Angeles Swimming Stadium and Exposition Clubhouse are visible from Bill Robertson Lane and Martin Luther King, Jr. Blvd. The Project is far enough from these two buildings that it will not obstruct their view from any angle. The subterranean parking structure will be located directly across the street from these buildings, but it will not have any above-ground features that will impact their setting. Today, the site of the parking structure has a turfed soccer field; the Project calls for the relocation of the field to the south of the subterranean structure, and landscaping above. The landscaped character of this site will not change.

Therefore, the Project does not have the potential to reduce the integrity or significance of the Los Angeles Swimming Stadium or Exposition Clubhouse.

Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, and California Aerospace Museum (now the Air and Space Gallery)

The Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, and California Aerospace Museum are all located in the eastern portion of Exposition Park. The closest of these to the Project Site is the Rose Garden, which is approximately 930 feet from the northeastern-most edge of the Lucas Museum of Narrative Art. In all cases, there are large buildings and structures between these important resources and the Project. There is no historical association between any of these buildings and the Project Site.

Therefore, the Project does not have the potential to reduce the integrity or significance of the Exposition Park Rose Garden, North and South Coliseum Drives with Christmas Tree Lane, or California Aerospace Museum.

6.4 Summary of Impacts

Using the CEQA thresholds discussed above to evaluate the Project and its potential to impact historical resources on the Project Site, adjacent to the Project Site, and in the vicinity of the Project Site, ARG has determined that the Project will not cause a substantial adverse change in the significance of any historical resources.

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APPENDIX A. Tables of Historic Resources

Table 1. Historical Resources Adjacent to the Project Site

Historic Name	Current Name	Year Built	Architect	Status/Notes
Los Angeles County Museum of History, Science, and Art	Natural History Museum	1913; with additions in 1925, 1930, 1960, and 1974.	Hudson & Munsell	Listed in the National Register; listed in the California Register.
Los Angeles Memorial Coliseum	Los Angeles Memorial Coliseum	1921; 1932	John and Donald Parkinson	National Historic Landmark (NHL); listed in the National Register; State Historical Landmark No. 960; listed in the California Register.
Exposition Park Historic District	Exposition Park Historic District	1910-1932	Various	Identified as eligible for the National Register by the Office of Historic Preservation in 1993. At that time, seven contributing resources were identified: Natural History Museum, Exposition Building, State Armory, Rose Garden, Memorial Coliseum, Swimming Stadium, and Exposition Clubhouse. In 2001, a Historic Property Survey Report (HPSR) prepared for Section 106 review of the California Science Center/African American Museum Parking Structure recommended that the district may no longer meet National Register criteria due to significant alterations and erosion of integrity within the district boundaries. No formal determination was made at this time, so for the purposes of this analysis the Exposition Park Historic District is presumed to continue to be a historical resource for the purposes of CEQA.

Table 2. Historical Resources in the Vicinity of the Project Site

Historic Name	Current Name	Year Built	Architect	Status/Notes
North and South Coliseum Drives with Christmas Tree Lane	North and South Coliseum Drives with Christmas Tree Lane	1925		Determined eligible for the National Register as a contributing feature of the Los Angeles Memorial Coliseum.[71]
Exposition Park Rose Garden	Exposition Park Rose Garden	1913-1932	Wilber David Cooke, Jr.; George C. Robinson, Fred H. Howard	Listed in the National Register; listed in the California Register; California Point of Historical Interest LAN-042.
Exposition Clubhouse	Exposition Clubhouse	1922-1926		Determined eligible for the National Register (Section 106 review prompted by the Northridge Earthquake, 1994); listed in the California Register; City of Los Angeles Historic-Cultural Monument (HCM) No. 127 (1974).
Los Angeles Swimming Stadium	LA84 Foundation/ John C. Argue Swim Stadium	1931		Determined eligible for the National Register (Section 106 review); listed in the California Register[72]
California Aerospace Museum	Air and Space Gallery	1984	Frank Gehry	Listed in the California Register (2012)

[71] Myra L. Frank & Associates, ii.

[72] The *Los Angeles Memorial Sports Arena Historic Resources Technical Report* (2015), prepared by Historic Resources Group, states that the Swimming Stadium may no longer retain sufficient integrity to be eligible for the National Register due to alterations made to the complex during a 2003 renovation.

Table 3. Exposition Park Former Historical Resources (no longer extant, eligible, or need to be re-evaluated)

Historic Name	Current Name	Year Built	Architect	Status/Notes
State Exposition Building	California Science Center	1912	William D. Coates, Jr.	Identified as a contributor to the Exposition Park Historic District in 1993; determined ineligible at 2000 review agency meeting (integrity compromised by major addition/alterations between 1996-1998)[73]
State Armory	Wallis Annenberg Building for Science and Innovation	1914	J.W. Wollett	Identified as a contributor to the Exposition Park Historic District in 1993.[74] Has not been individually evaluated for eligibility.
Los Angeles Memorial Sports Arena	Los Angeles Memorial Sports Arena	1959	Welton Becket and Associates	Determined eligible for the California Register in 2010.[75] Demolished 2016.

[73] Myra L. Frank & Associates, iii, Appendix A.

[74] According the *Historic Property Survey Report for the California Science Center/California African American Museum Parking Structure*, prepared by Myra L. Frank & Associates, the California State Armory building was determined eligible as a contributor to the Exposition Park History District in 1993 (page 17, 20). It is unclear as to whether the building has been determined individually eligible.

[75] *Los Angeles Memorial Sports Arena Redevelopment Project Draft EIR*, 2010

APPENDIX B. Existing Conditions Photographs



Jesse Brewer Jr. Park, view to northwest from west side of Bill Robertson Lane. ARG, 8/25/16.



Jesse Brewer Jr. Park, view to northwest from park interior. ARG, 3/15/17.



Parking Lot 3, view to southwest. ARG, 8/25/16.



Parking Lot 3, view to southwest from east side of Bill Robertson Lane. ARG, 8/25/16.



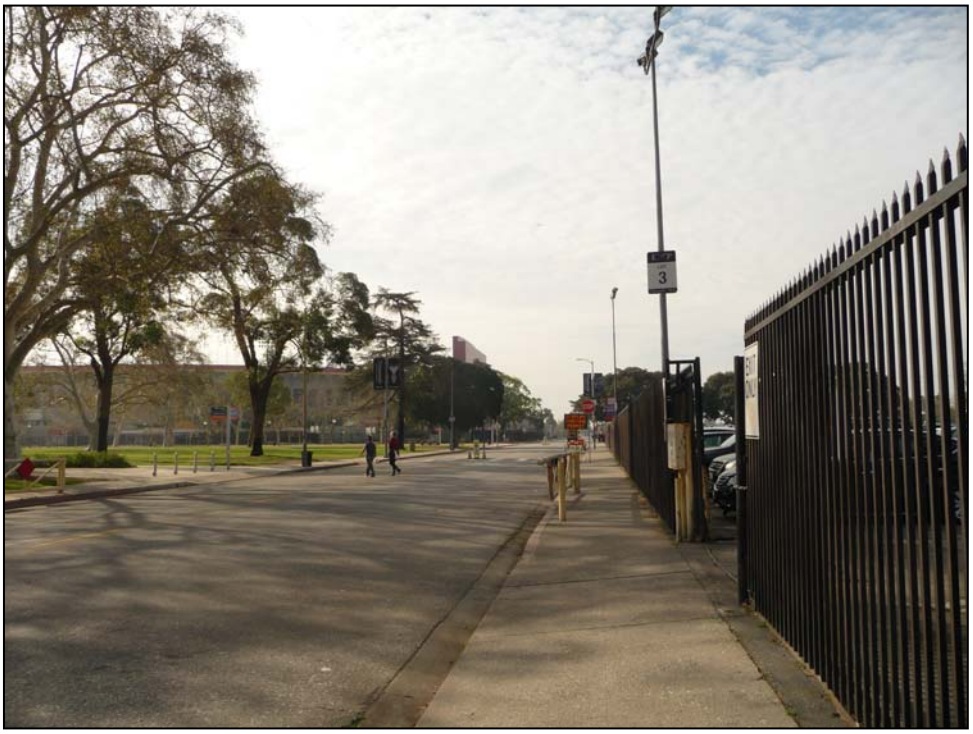
Parking Lot 3, view to northeast with Natural History Museum in background. ARG, 8/25/16.



Utilitarian west façade of Natural History Museum, view to northeast from Parking Lot 3. ARG, 8/25/16.



Parking Lot 3, view to south with Coliseum in left background. ARG, 3/15/17.



Bill Robertson Lane with Parking Lot 3 (right) and Coliseum (left background), view south. ARG, 3/15/17.



Parking Lot 3 with Natural History Museum in background, view to east from Vermont Avenue. ARG, 3/15/17.



Ficus trees lining 39th Street between Parking Lots 3 and 2, view northwest. ARG, 8/25/16.



Natural History Museum from southwest corner of 39th Street and Bill Robertson Lane, view northeast. ARG, 8/25/16.



Coliseum from southwest corner of 39th Street and Bill Robertson Lane, view southeast. ARG, 8/25/16.



Portion of Coliseum from Parking Lot 2, view southeast. ARG, 3/15/17.



Parking Lot 2, view to southwest. ARG, 3/15/17.



Parking Lot 2, view to northwest. ARG, 8/25/16.



Parking Lot 2, view to north. ARG, 3/15/17.



Parking Lot 2 with Coliseum in background, view to northeast from Vermont Avenue. ARG, 3/15/17.



Parking Lot 2 at 39th Street with Coliseum in left background, view to southeast from Vermont Avenue. ARG, 3/15/17.



Soboroff Field, view to northwest. ARG, 3/15/17.



Soboroff Field building, view to southwest. ARG, 3/15/17.



South parking lot, view to north. ARG, 3/15/17



South parking lot, view to northeast showing Coliseum, Swimming Stadium, and Clubhouse in the background. ARG, 3/15/17.



Southern portion of Project Site, view to northeast from Vermont Avenue. ARG, 3/15/17.


Northern portion of Project Site, view to southwest from top of Natural History Museum south entrance steps. ARG, 8/25/16.

Appendix D

Geotechnical Reports

Appendix D.1

Soils Report Approval Letter

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

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PRESIDENT

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CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

FRANK BUSH
GENERAL MANAGER

OSAMA YOUNAN, P.E.
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

February 23, 2017

LOG # 96991
SOILS/GEOLOGY FILE - 2
LIQ

University of Southern California
3335 S. Figueroa Street, Unit G/UGW 110
Los Angeles, CA 90089

TRACT:	SOUTHERN DISTRICT AGRICULTURAL PARK AND ADJOINING LOTS (MR 4-352)
LOT(S):	33-66, 73-123
LOCATION:	3748 - 3946 S. Vermont Ave.

VESTING TENTATIVE MAP: VTT 74715

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE(S) OF DOCUMENT	PREPARED BY
Update Report	21315	02/10/2017	Geotechnologies, Inc.

PREVIOUS REFERENCE REPORT/LETTER(S)	REPORT No.	DATE(S) OF DOCUMENT	PREPARED BY
Soils Report	21315	10/27/2016	Geotechnologies, Inc.
Soils Report	21315	10/31/2016	Geotechnologies, Inc.
Dept. Approval Letter	95503	11/23/2016	LADBS

The Grading Division of the Department of Building and Safety has reviewed the referenced reports that provide liquefaction evaluation for the purpose of filing a vesting tentative tract with the Department of City Planning. Due to its preliminary nature, the referenced reports are not intended for building permit purposes.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California. Based on previous investigations conducted by the consultants immediately west to the subject site, the consultants concluded that the liquefaction potential at the subject site is low. This satisfies the requirement of the 2017 Los Angeles City Building Code Section 1802.2.7.

The referenced reports are acceptable, provided the following conditions are complied with during site development:

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2014 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. This referenced reports are approved for the purpose of filing a vesting tentative tract with the Department of City Planning only. No building or grading permits shall be issued based on the referenced reports and this approval letter.

2. Prior to the issuance of building or grading permits, a comprehensive soils report including a detailed description of the proposed construction, detailed plans and sections, site-specific field exploration and laboratory tests, and robust engineering analysis (including site-specific liquefaction analysis) and building specific recommendations shall be submitted to the Department for review and approval.

YING LIU
Geotechnical Engineer I

YL/yl
Log No. 96991
213-482-0480

cc: Applicant
Geotechnologies, Inc., Project Consultant
LA District Office

Appendix D.2

Preliminary Geotechnical Assessment

Geotechnologies, Inc.
Consulting Geotechnical Engineers
439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

October 27, 2016
File No. 21315

University of Southern California
Real Estate and Asset Management
3335 South Figueroa Street
Unit G/UGW 110
Los Angeles, California 90089

Attention: Brian League

Subject: Preliminary Geotechnical Assessment
Proposed Lucas Museum of Narrative Art
Exposition Park Site, 3748 - 3946 S. Vermont, Los Angeles, California

Dear Mr. League:

1.0 INTRODUCTION

This document presents the results of the preliminary geotechnical assessment of the subject site. This preliminary report is intended to discuss the subsurface conditions anticipated at the site, discuss the potential for seismic hazards that could affect the site, and provide an opinion regarding the feasibility of the proposed project from the geotechnical perspective. This report is based on review of available project files, and review of published geotechnical and geological information.

At this time, subsurface exploration of the subject site has not been completed for the proposed project. Therefore, this document is not intended for submission to the Building Official for building permit purposes. A comprehensive geotechnical engineering investigation including subsurface exploration and testing will be necessary in order to provide design recommendations for the proposed development.

2.0 PROJECT DESCRIPTION

Based on review of the Progress Draft Drawings, prepared by mad architects, dated September, 2016, it is the understanding of this firm that the proposed project consists of the construction of a museum. It is anticipated that the proposed museum structure will be up to five levels in height, and will be built over two subterranean parking levels. It is anticipated that the finished floor of the lowest subterranean level will extend to an approximate depth of 27½ feet below the existing grade.

3.0 SITE CONDITIONS

The subject site is located within the northwestern corner of Exposition Park. The site is bounded by the Jesse Brewer Jr. Park to the north, Bill Robertson Lane to the east, Leighton Avenue to the south, and Vermont Avenue to the west. The site is currently bisected along the east-west direction by Exposition Park Drive. The site is shown relative to nearby topographic features in the enclosed Vicinity Map.

The existing site grade is relatively level, with no pronounced highs or lows. The site is currently developed with two paved parking lots. Vegetation at the site consists of several mature trees located along its western and central areas. Drainage across the site appears to be by sheetflow to the city streets.

4.0 PROJECTS IN THE VICINITY OF THE SITE BY GEOTECHNOLOGIES, INC.

This firm has provided geotechnical services on many projects throughout the City of Los Angeles. Some of those projects are in the immediate vicinity of the subject site. A brief summary of the three projects closest to the subject site is provided below. The locations of these projects are indicated on the enclosed Vicinity Map.

- *Geotechnical Engineering Investigation, Proposed Charter School, 3937-3947 Vermont Avenue, Los Angeles, California, dated June 2, 2016, revised August 25, 2016, File No. 21227.*

  As shown in the enclosed Vicinity Map, this site is located immediately to the west of the subject site, across Vermont Avenue. This geotechnical investigation pertained to the design of a 2-story school structure, proposed to be built near the existing grade.

  The investigation for this project included five borings, drilled to depths ranging between 10 and 70 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of silty sands and sands. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 22½ feet below grade, and dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 70 feet below grade.

  Based on a site-specific liquefaction analysis, the report indicates the site soils would not be prone to liquefaction.

- *Draft Geotechnical Engineering Investigation, Proposed Educational Building, University of Southern California, Southeast Corner of Exposition Boulevard and Watt Way, Los Angeles, California, dated February 23, 2016, File No. 21125.*

As shown in the enclosed Vicinity Map, this site is located to the northeast of the subject site, across Exposition Boulevard. This draft geotechnical investigation pertained to the design of a 3-story educational structure, proposed to be built at-grade.

The investigation for this project included three borings, drilled to depths ranging between 20 and 50 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of silty sands and sands. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 15 feet below grade, and dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 50 feet below grade.

The report indicates the site soils would not be prone to liquefaction.

Geotechnical Engineering Investigation, Proposed Museum Expansion, California Science Center, 700 Exposition Park Drive, Los Angeles, California, dated February 24, 2014, File No. 20445.

As shown in the enclosed Vicinity Map, this site is located within the northeastern area of Exposition Park, approximately ¼-mile to the east of the subject site. This geotechnical investigation pertained to the design of an expansion to the California Science Center.

The investigation for this project included three borings, drilled to depths ranging between 80 and 130 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of sands, silt, and limited amounts of clay. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 20 feet below grade, and medium dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 130 feet below grade.

The report indicates the site soils would not be prone to liquefaction.

5.0 ANTICIPATED SUBSURFACE CONDITIONS

5.1 Geologic Materials

Based on review of a the previous investigations conducted by this firm in the vicinity of the site, review of the enclosed geologic map by Dibblee (1991), and this firm's experience in this area of the City of Los Angeles, it is anticipated the soils underlying the subject site consist of alluvial soils. These alluvial soils generally consist of mixtures of sands and silty sands, with varying amounts of gravels and cobbles. The alluvium is typically medium dense to very dense, or stiff, and well consolidated, with expansion characters that range from very low to moderate. However, local variations in moisture content and soil type may occur.

It is anticipated that some amount of existing fill materials will overlie the native alluvium in and around the subject site. These fill materials are expected to be completely removed within the limits of the proposed subterranean parking levels, exposing dense native alluvial soils at the subgrade.

5.2 Groundwater

A previous investigation conducted by this firm immediately to the west of the subject site, did not encounter groundwater to a depth of 70 feet below grade. Another investigation also conducted by this firm approximately ¼-mile to the east of the site, did not encounter groundwater to a depth of 130 feet below grade. It is the opinion of this firm that the current groundwater level at the site would be deeper than 70 feet below grade.

According to groundwater data provided in the Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, the historic-high groundwater level for the site was on the order of 40 feet below the ground surface (CDMG, 1998, Revised 2006). A copy of the historic high water map is enclosed herein.

Fluctuations in the level of groundwater would be expected to occur over time due to variations in rainfall, temperature, and other factors. Fluctuations also may occur in the vicinity of the site.

6.0 CITY OF LOS ANGELES METHANE ZONE

Based on review of the NavigateLA Website, developed by the City of Los Angeles, Bureau of Engineering, Department of Public Works, the subject site is not located within the limits of a City of Los Angeles Methane Zone or Methane Buffer Zone. A copy of this map is enclosed herein.

7.0 REGIONAL GEOLOGY

The subject site is located within the northern portions of the Los Angeles Basin and Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-west trending reverse faults that form the southern margin of the Transverse Ranges.

The Los Angeles Basin is located at the northern end of the Peninsular Ranges Geomorphic Province. The basin is bounded by the east and southeast by the Santa Ana Mountains and San Joaquin Hills, and to the northwest by the Santa Monica Mountains. Over 22 million years ago, the Los Angeles Basin was a deep marine basin formed by tectonic forces between the North American and Pacific plates. Since that time, over 5 miles of marine and non-marine

sedimentary rock, as well as intrusive and extrusive igneous rocks, have filled the basin. During the last 2 million years, defined by the Pleistocene and Holocene epochs, the Los Angeles Basin and surrounding mountain ranges have been uplifted to form the present day landscape. Erosion of the surrounding mountains has resulted in deposition of unconsolidated sediments in low-lying areas by rivers such as the Los Angeles River. Areas that have experienced subtle uplift have been eroded with gullies (Yerkes, 1965).

The site is underlain by alluvial sediments deposited by river and stream action, most likely in excess of 150 feet of depth.

8.0 SEISMIC HAZARDS

8.1 Surface Rupture

Review of the Earthquake Zones of Required Investigation Map of the Hollywood Quadrangle (CGS, 2014) indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

8.2 Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazards Map of the Hollywood Quadrangle by the State of California (CDMG, 1999) classifies the western portion of the site as part of a Liquefiable area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake. A copy of this Seismic Hazard Zones Map is enclosed herein.

A previous investigation conducted by this firm immediately to the west of the subject site, did not encounter groundwater to a depth of 70 feet below grade. Another investigation also conducted by this firm approximately ¼-mile to the east of the site, did not encounter groundwater to a depth of 130 feet below grade. According to groundwater data provided in the Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, the historic-high

groundwater level for the site was on the order of 40 feet below the ground surface (CDMG, 1998, Revised 2006).

A site-specific liquefaction analysis was conducted by this firm as part of the previous investigation conducted immediately to the west of the subject site. The analysis, which was performed to a depth of 70 feet below grade, was based on a historically highest groundwater level of 40 feet. The site-specific liquefaction analysis determined that the site soils were not susceptible to liquefaction potential.

Based on the depth to the historically highest and current groundwater levels, results from the site-specific liquefaction conducted immediately to the west of the subject site, and the density of the alluvial soils observed in previous investigations conducted in the vicinity of the site, it is the opinion of this firm that the potential for liquefaction at the subject site is considered to be low. Nonetheless, a site specific liquefaction analysis should be performed as part of a design level geotechnical investigation.

8.3 Dynamic Dry Settlement

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

Some seismically-induced dry settlement of the proposed structures could be expected at the subject site as a result of strong ground-shaking. However, based on the typically dense, stiff, and consolidated nature of the alluvial soils expected to underlie the site, the potential dynamic settlements would be expected to be negligible.

8.4 Tsunamis and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the County of Los Angeles Flood and Inundation Hazards Map (Leighton, 1990) indicates the site does not lie within mapped tsunami inundation boundaries.

Review of the County of Los Angeles Flood and Inundation Hazards Map, (Leighton, 1990), indicates the site lies within the mapped inundation boundaries of the Hansen and Sepulveda Reservoirs. A determination of whether a higher site elevation would remove the site from the potential inundation zones is beyond the scope of this assessment.

8.5 Landsliding

The probability of seismically-induced landslides affecting the subject development is considered to be remote, due to the lack of significant slopes on the site and surrounding areas.

9.0 PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

Based on the research of other projects in the site vicinity, and this firm's experience in this area of the City of Los Angeles, it is the opinion of this firm the proposed development is feasible from a geotechnical engineering standpoint. Once the proposed project proceeds to design and development, it is recommended a comprehensive geotechnical investigation should be prepared in order to provide design parameters and recommendations for the proposed project.

The Seismic Hazards Map of the Hollywood Quadrangle by the State of California (CDMG, 1999) classifies the western portion of the site as part of a Liquefiable area. However, as explained in Section 8.2 of this report, it is the opinion of this firm that as site-specific liquefaction analysis would determine that the site soils are not susceptible to liquefaction.

The proposed museum structure will be built over two subterranean parking levels. The finished floor elevation of the lowest subterranean level is expected to extend to an approximate depth of 27½ feet below grade. It is anticipated that dense native alluvial soils, suitable for support of new foundations, would be exposed at the subgrade of these subterranean levels.

The type of foundations to support the proposed structure will be determined once structural information is available. While the use of conventional foundations could be feasible for the project, it has been the experience of this firm that museum structures typically require an alternate foundation system, such as deepened foundation system, or a mat foundation, in order to satisfy their large loading demand.

Based on previous geotechnical investigation performed by this firm in the vicinity of the site, it is the opinion of this firm that the current groundwater level at the site would be deeper than 70 feet below grade. The mapped historically highest groundwater level for the site is on the order of 40 feet below the existing site grade. Based on these levels, groundwater is not expected to affect the proposed development.

Due to the depth of the proposed subterranean levels, and their proximity of the property lines, it should be anticipated that shoring will be required for construction of the basement levels. At this time, solder piles would be recommended for shoring.

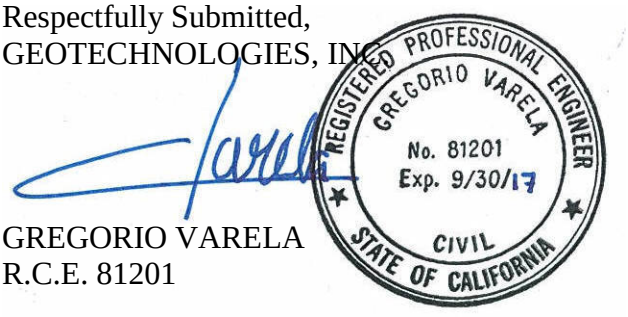
As with all of Southern California, the site is subject to potential strong ground motion should a moderate to strong earthquake occur on a local or regional fault. The proposed project should be completed in accordance with the provisions of the most current City of Los Angeles Building Code. In either case, design of the project in accordance with the current building code provisions will be intended to mitigate the potential effects of strong ground shaking.

10.0 CLOSURE

As indicated above, this preliminary assessment is based on available geotechnical information and published geologic data. Subsurface exploration of the subject site has not been completed at this time. A comprehensive geotechnical engineering investigation including subsurface exploration and testing will be necessary in order to provide design recommendations for the proposed development.

Geotechnologies, Inc. appreciates the opportunity to provide our services on this project. Should you have any questions please contact this office.

Respectfully Submitted,
GEOTECHNOLOGIES, INC.



GREGORIO VARELA
R.C.E. 81201

GV:km

Distribution: (3) Addressee

Email to: [brian.league@usc.edu]
[matt@agd-landuse.com]

Enclosures: References
Vicinity Map
Local Geologic Map
Historically Highest Groundwater Levels Map
Seismic Hazard Zone Map
Methane Zone Risk Map

REFERENCES

California Department of Conservation, Division of Mines and Geology, 1998 (Revised 2006), Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, Los Angeles County, California., C.D.M.G. Seismic Hazard Zone Report 026, map scale 1:24,000.

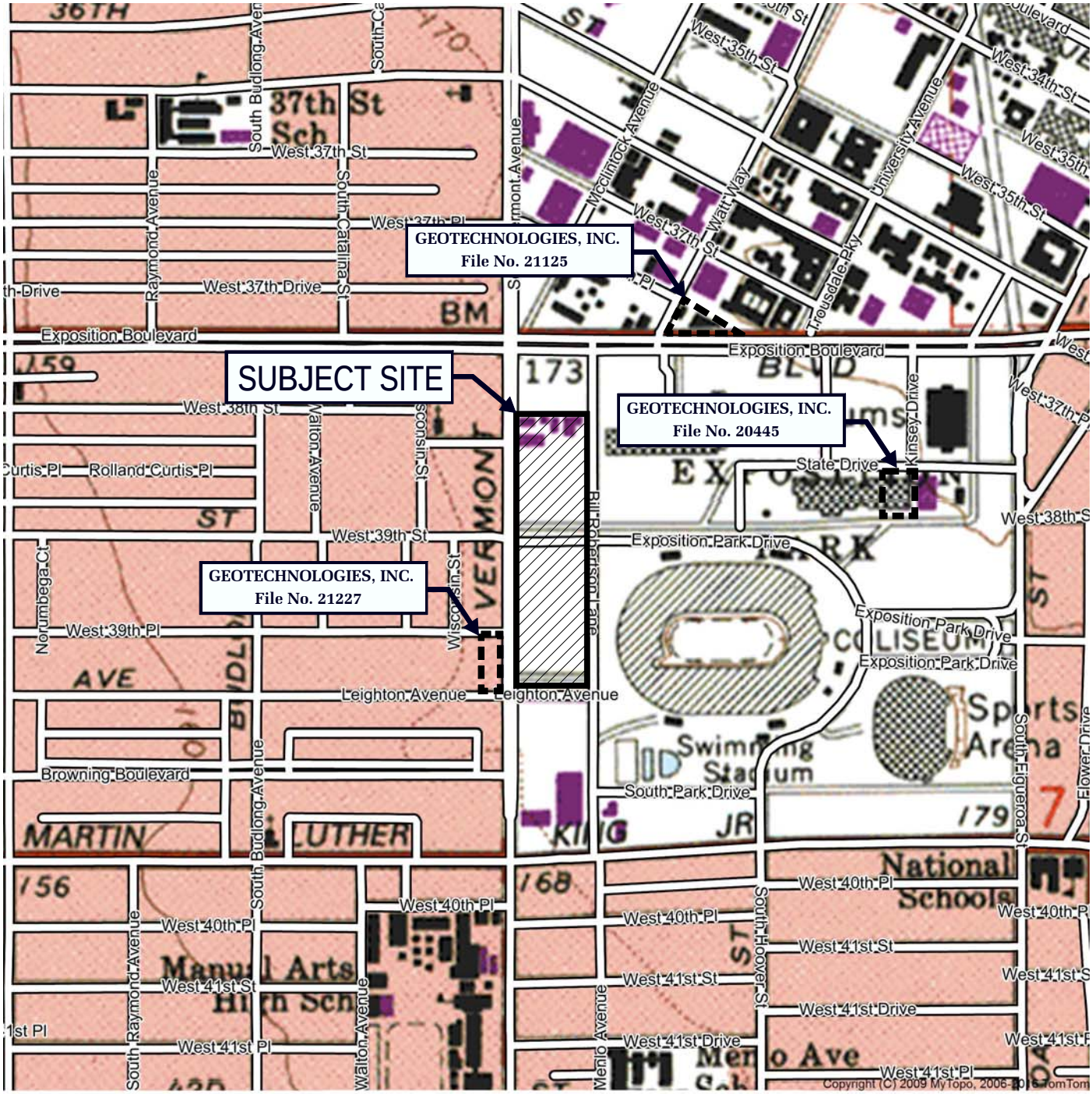
California Department of Conservation, Division of Mines and Geology, 1999, Seismic Hazard Zones Map, Hollywood 7½-minute Quadrangle, CDMG Seismic Hazard Zone Mapping Act of 1990.

California Geological Survey, 2014, Earthquake Zones of Required Investigation, Hollywood Quadrangle, Released November 6, 2014.

Dibblee, T.W. Jr., 1991, Geologic Map of the Hollywood and Burbank (South ½), Quadrangles, Division of Mines and Geology, DF Map #DF-30, Map Scale 1:24,000.

Leighton and Associates, Inc., 1990, Technical Appendix to the Safety Element of the Los Angeles County General Plan: Hazard Reduction in Los Angeles County.

Yerkes, R.F., McCulloh, T.H., Schoellhamer, J.E., Vedder, J.G., 1965, Geology of the Los Angeles Basin, Southern California-An Introduction, U.S. Geological Professional Paper 420-A.



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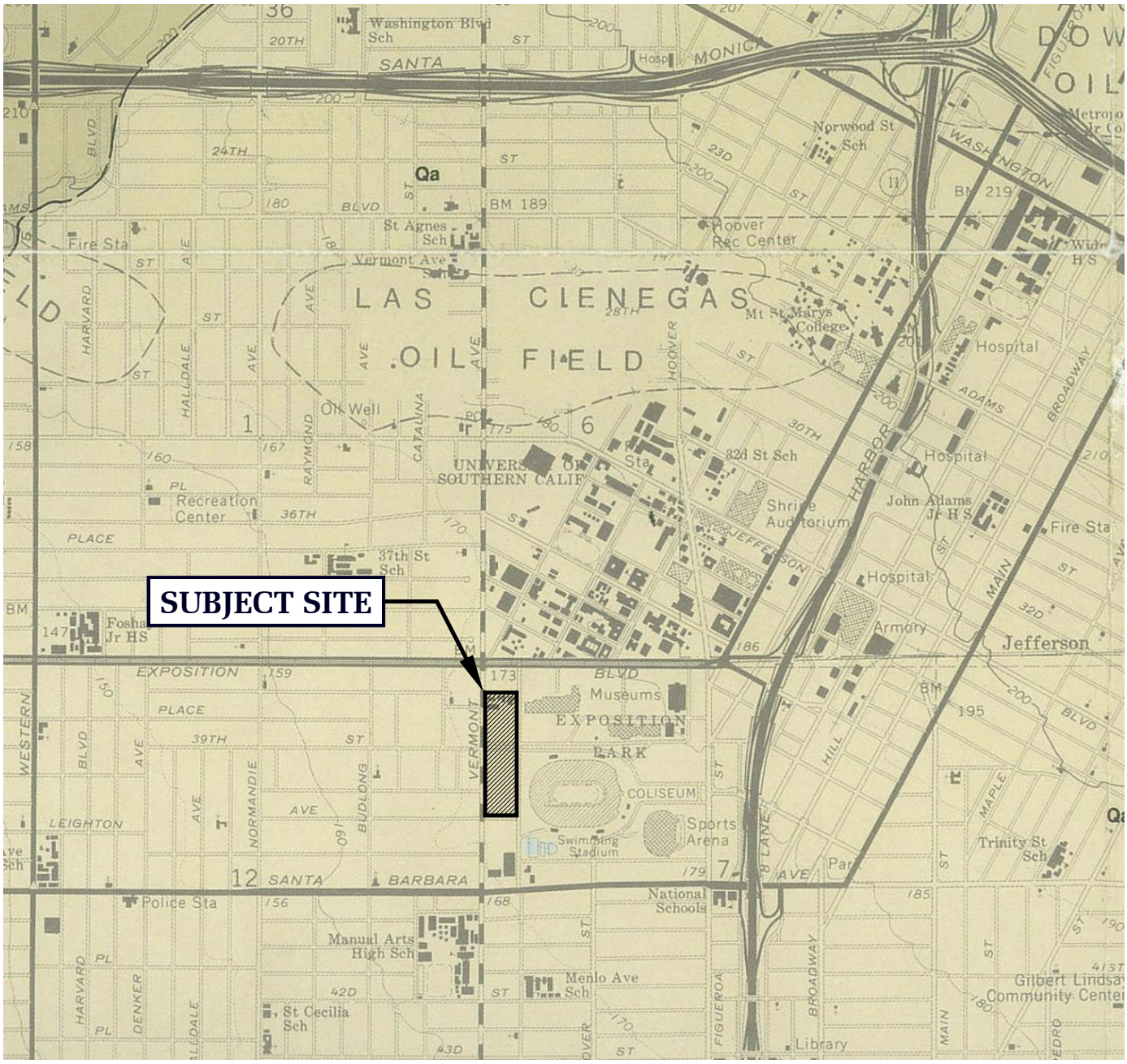
REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, HOLLYWOOD, CA QUADRANGLE

VICINITY MAP

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Consulting Geotechnical Engineers

U.S.C.
PROPOSED LUCAS MUSEUM

FILE NO. 21315



LEGEND

Qa: **Surficial Sediments - Alluvium consisting of clay, sand and gravel**

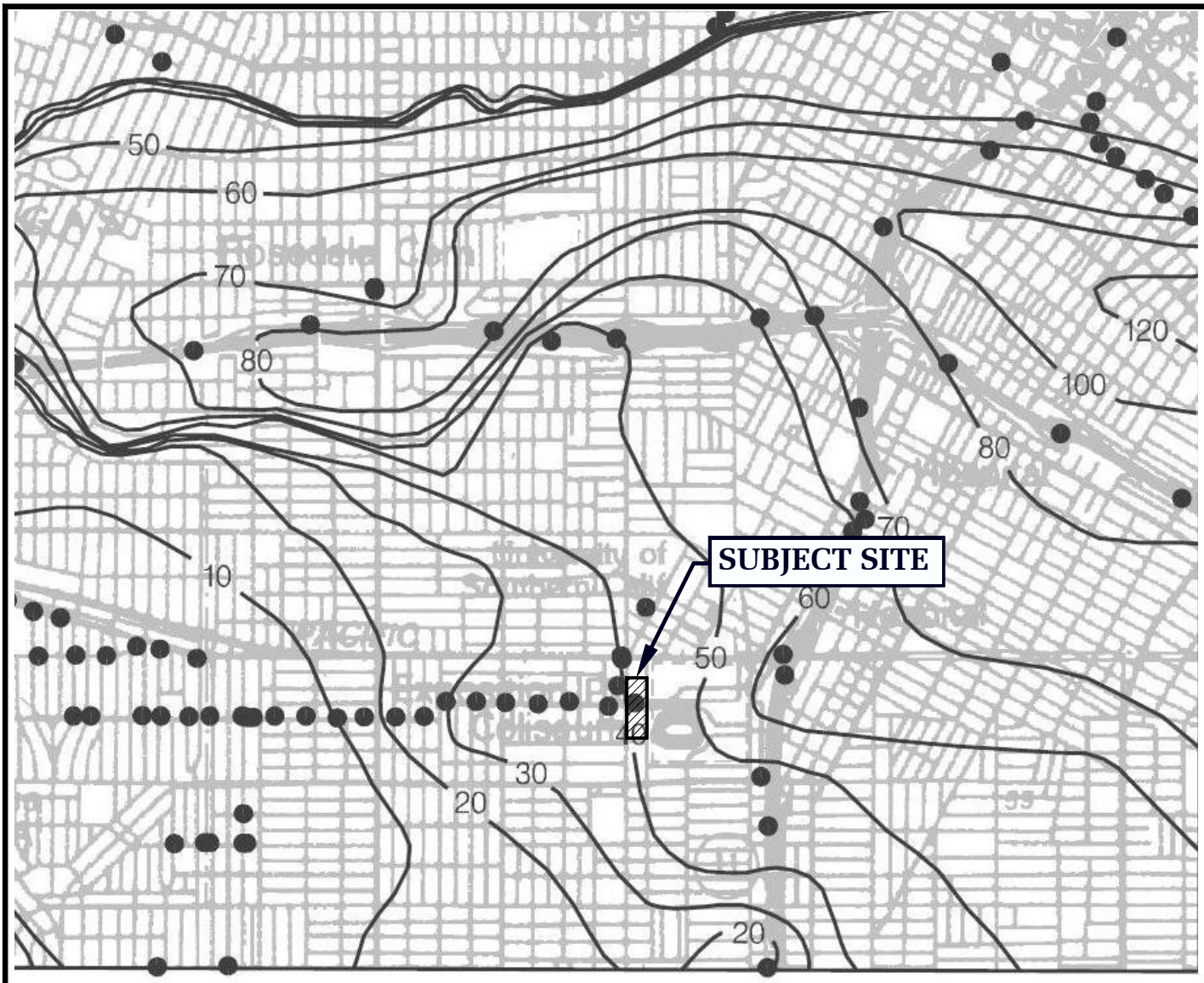
REFERENCE: DIBBLEE, T.W., (1991), GEOLOGIC MAP OF THE HOLLYWOOD AND BURBANK (SOUTH 1/2) QUADRANGLES, MAP #DF-30

LOCAL GEOLOGIC MAP

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PROPOSED LUCAS MUSEUM

FILE NO. 21315



ONE MILE

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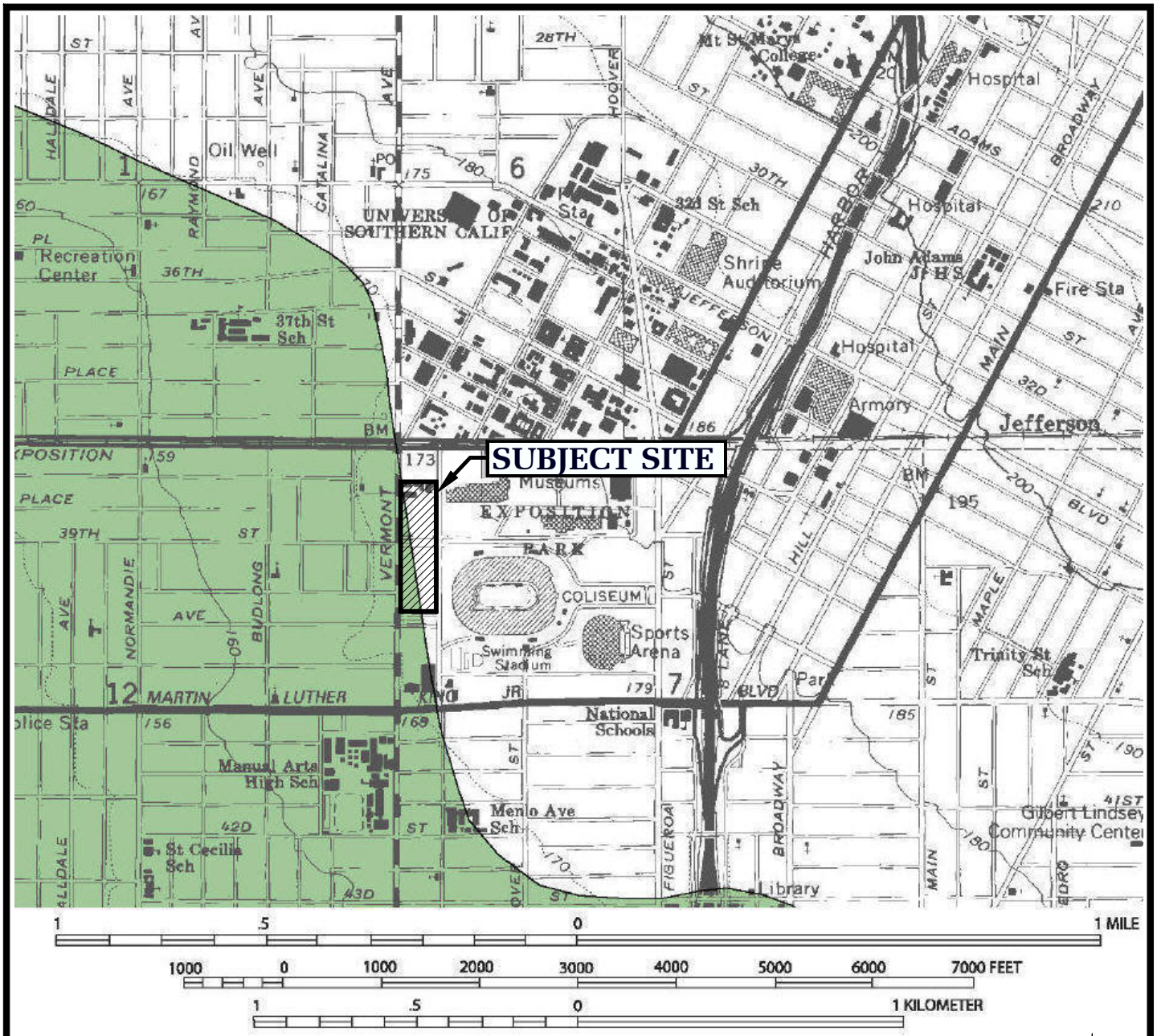
20 DEPTH TO GROUNDWATER IN FEET

REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 026
HOLLYWOOD 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2006)

HISTORICALLY HIGHEST GROUNDWATER LEVELS

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FILE NO. 21315



LIQUEFACTION AREA

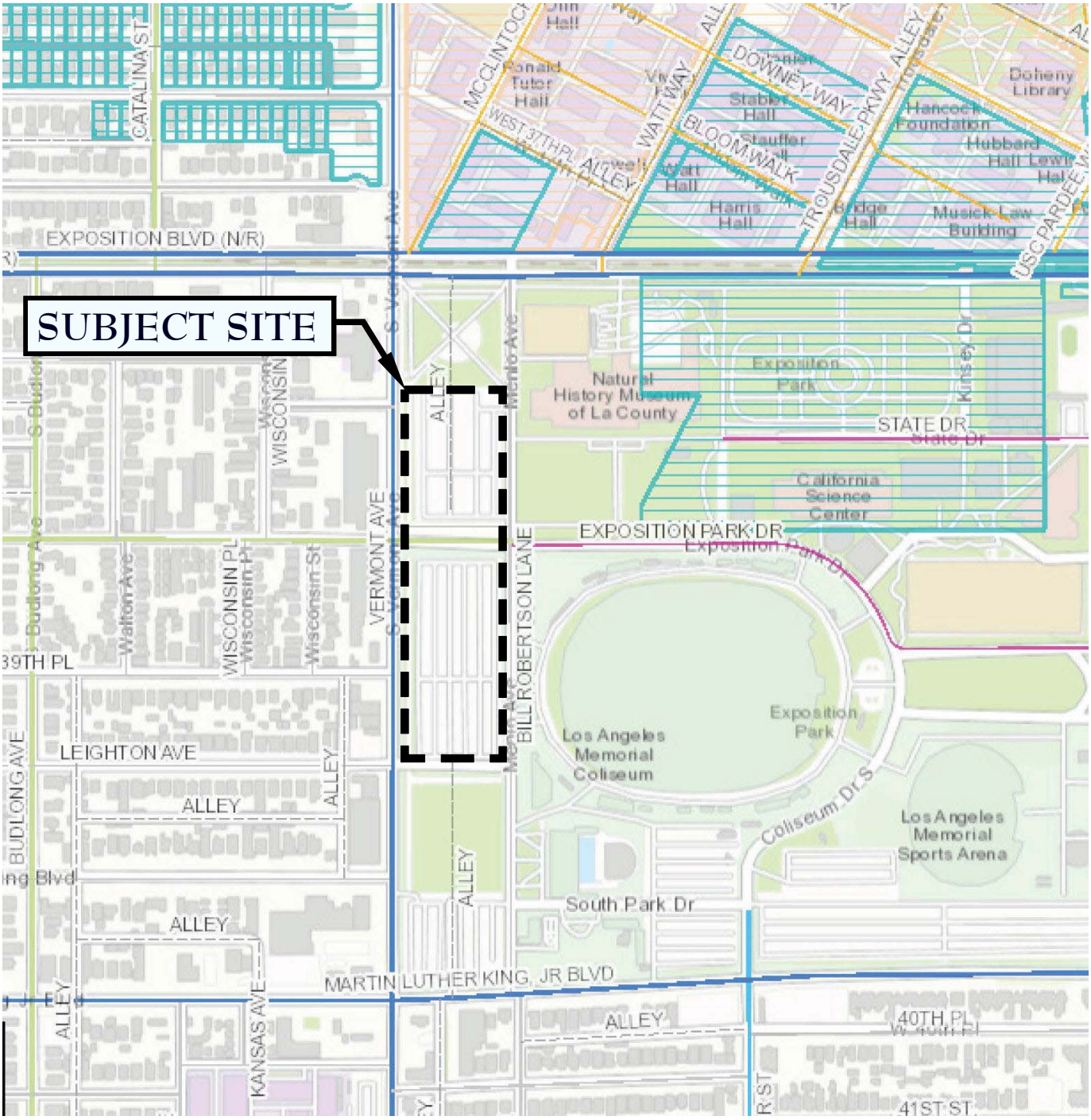
REFERENCE: SEISMIC HAZARD ZONE MAP, HOLLYWOOD QUADRANGLE, 1999, DIVISION OF MINES AND GEOLOGY

SEISMIC HAZARD ZONE MAP

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PROPOSED LUCAS MUSEUM

FILE NO. 21315



Methane Zone

Methane Buffer Zone

REFERENCE: http://navigatela.lacity.org/navigatela/

METHANE ZONE RISK MAP

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FILE NO. 21315

Appendix D.3

Supplemental Liquefaction Hazard Information

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Consulting Geotechnical Engineers
439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

October 27, 2016
File No. 21315

University of Southern California
Real Estate and Asset Management
3335 South Figueroa Street
Unit G/UGW 110
Los Angeles, California 90089

Attention: Brian League

Subject: Preliminary Geotechnical Assessment
Proposed Lucas Museum of Narrative Art
Exposition Park Site, 3748 - 3946 S. Vermont, Los Angeles, California

Dear Mr. League:

1.0 INTRODUCTION

This document presents the results of the preliminary geotechnical assessment of the subject site. This preliminary report is intended to discuss the subsurface conditions anticipated at the site, discuss the potential for seismic hazards that could affect the site, and provide an opinion regarding the feasibility of the proposed project from the geotechnical perspective. This report is based on review of available project files, and review of published geotechnical and geological information.

At this time, subsurface exploration of the subject site has not been completed for the proposed project. Therefore, this document is not intended for submission to the Building Official for building permit purposes. A comprehensive geotechnical engineering investigation including subsurface exploration and testing will be necessary in order to provide design recommendations for the proposed development.

2.0 PROJECT DESCRIPTION

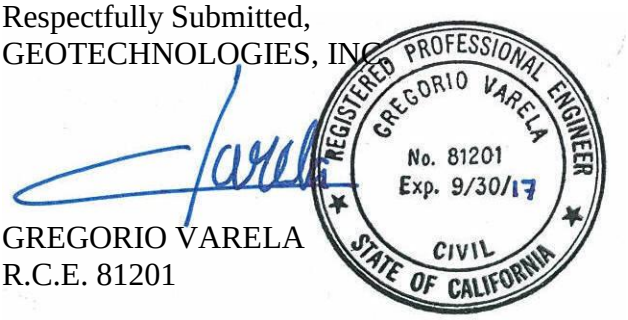
Based on review of the Progress Draft Drawings, prepared by mad architects, dated September, 2016, it is the understanding of this firm that the proposed project consists of the construction of a museum. It is anticipated that the proposed museum structure will be up to five levels in height, and will be built over two subterranean parking levels. It is anticipated that the finished floor of the lowest subterranean level will extend to an approximate depth of 27½ feet below the existing grade.

USGS Probabilistic Seismic Hazard Deaggregation program (USGS, 2008). A peak ground acceleration of 0.74g, which corresponds to the site's PGA_M, was obtained using the U.S. Seismic Design Maps tool. These parameters are used in the enclosed liquefaction analysis.

The enclosed Liquefaction Analysis is performed based on Standard Penetration Test (SPT) blow counts recorded from Boring number 1. A copy of the log corresponding to this boring has been enclosed herein. SPT data were collected at 5-foot intervals. Samples of the collected materials were conveyed to the laboratory for testing and analysis. Based on the collected SPT data, the enclosed liquefaction analysis indicates that the soils underlying the site would not be capable of liquefaction during the design-based earthquake.

Geotechnologies, Inc. appreciates the opportunity to provide our services on this project. Should you have any questions please contact this office.

Respectfully Submitted,
GEOTECHNOLOGIES, INC.



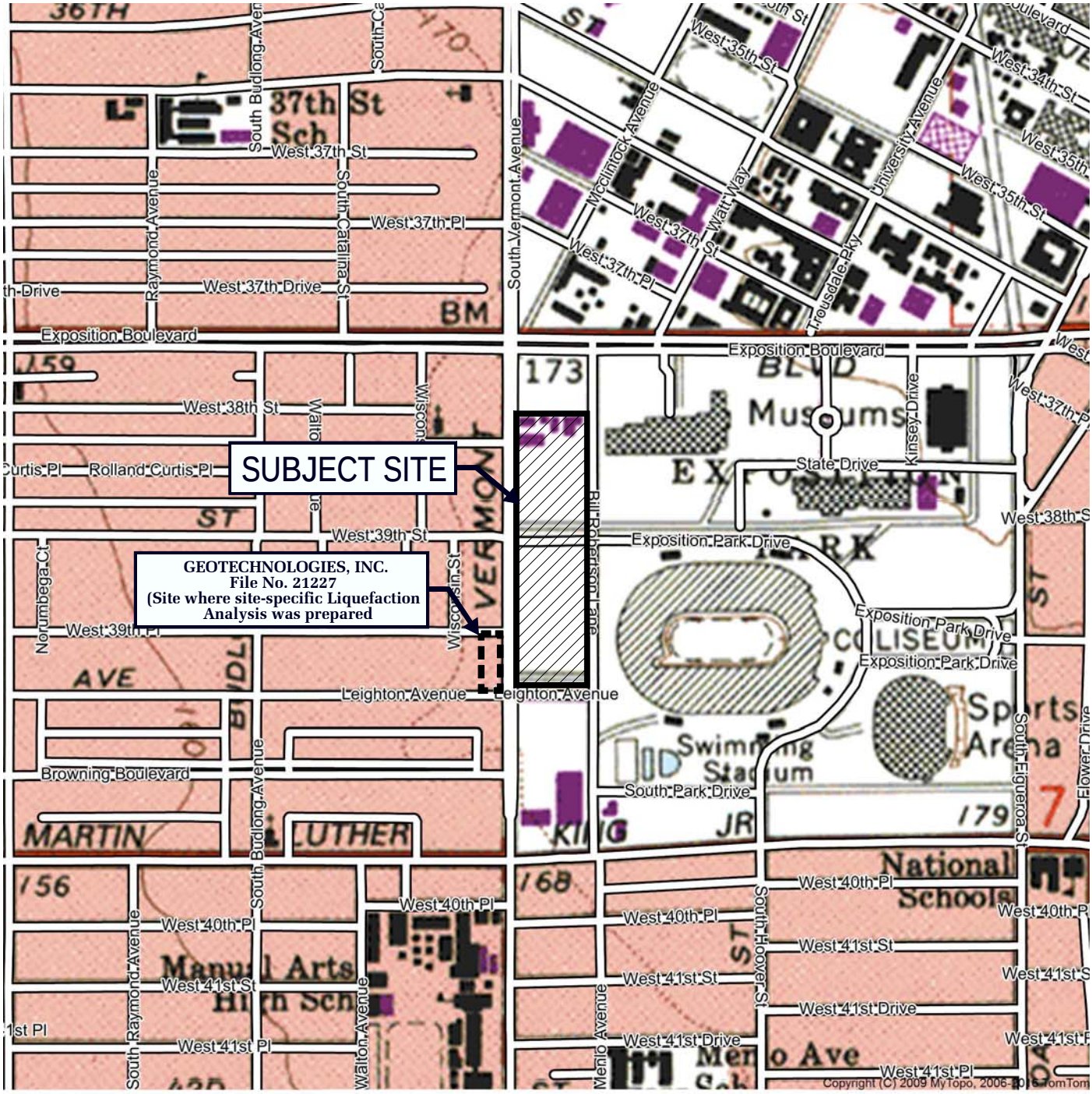
GREGORIO VARELA
R.C.E. 81201

GV:ae

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Email to: [brian.league@usc.edu]
[matt@agd-landuse.com]

Enclosures: Vicinity Map
Liquefaction Analysis (1 sheet)
Log of Boring 1 (3 sheets)



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REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, HOLLYWOOD, CA QUADRANGLE

VICINITY MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

U.S.C.
PROPOSED LUCAS MUSEUM

FILE NO. 21315

Geotechnologies, Inc.

Project: Pacific Charter School
File No.: 21227
Description: Liquefaction Analysis
Boring Numbe 1

LIQUEFACTION EVALUATION (Idriss & Boulanger, EERI NO 12)

EARTHQUAKE INFORMATION:

Earthquake Magnitude (M):	6.6
Peak Ground Horizontal Acceleration, PGA (g):	0.74
Calculated Mag.Wtg.Factor:	1.267

GROUNDWATER INFORMATION:

Current Groundwater Level (ft):	71.0
Historically Highest Groundwater Level* (ft):	40.0
Unit Weight of Water (pcf):	62.4

* Based on California Geological Survey Seismic Hazard Evaluation Report

BOREHOLE AND SAMPLER INFORMATION:

Borehole Diameter (inches):	8
SPT Sampler with room for Liner (Y/N):	Y

LIQUEFACTION BOUNDARY:

Plastic Index Cut Off (PI):	18
Minimum Liquefaction FS:	1.3

Depth to Base Layer (feet)	Total Unit Weight (pcf)	Current Water Level (feet)	Historical Water Level (feet)	Field SPT Blowcount N	Depth of SPT Blowcount (feet)	Fines Content #200 Sieve (%)	Plastic Index (PI)	Vetical Stress σ_{vc}, (psf)	Effective Vert. Stress σ_{vc}', (psf)	Fines Corrected $(N_1)_{60\text{-}cs}$	Stress Reduction Coeff, r_d	Cyclic Shear Ratio CSR	Cyclic Resistance Ratio (CRR)	Factor of Safety CRR/CSR (F.S.)	Liquefaction Settlment ΔS_i (inches)
1	118.3	Unsaturated	Unsaturated	6	5	0.0	0	118.3	118.3	12.2	1.00	0.483	0.187	Non-Liq.	0.00
2	118.3	Unsaturated	Unsaturated	6	5	0.0	0	236.6	236.6	12.2	1.00	0.481	0.187	Non-Liq.	0.00
3	118.3	Unsaturated	Unsaturated	6	5	0.0	0	354.9	354.9	12.2	1.00	0.480	0.187	Non-Liq.	0.00
4	118.3	Unsaturated	Unsaturated	6	5	0.0	0	473.2	473.2	12.2	0.99	0.478	0.187	Non-Liq.	0.00
5	118.3	Unsaturated	Unsaturated	6	5	0.0	0	591.5	591.5	13.1	0.99	0.476	0.196	Non-Liq.	0.00
6	118.3	Unsaturated	Unsaturated	6	5	0.0	0	709.8	709.8	13.1	0.99	0.474	0.196	Non-Liq.	0.00
7	118.3	Unsaturated	Unsaturated	6	5	0.0	0	828.1	828.1	13.1	0.98	0.472	0.196	Non-Liq.	0.00
8	108.1	Unsaturated	Unsaturated	6	5	0.0	0	936.2	936.2	12.2	0.98	0.470	0.184	Non-Liq.	0.00
9	108.1	Unsaturated	Unsaturated	6	5	0.0	0	1044.3	1044.3	12.1	0.97	0.468	0.181	Non-Liq.	0.00
10	108.1	Unsaturated	Unsaturated	6	5	0.0	0	1152.4	1152.4	11.4	0.97	0.465	0.172	Non-Liq.	0.00
11	108.1	Unsaturated	Unsaturated	11	10	0.0	0	1260.5	1260.5	20.2	0.96	0.463	0.283	Non-Liq.	0.00
12	108.1	Unsaturated	Unsaturated	11	10	0.0	0	1368.6	1368.6	19.3	0.96	0.461	0.265	Non-Liq.	0.00
13	116.0	Unsaturated	Unsaturated	13	15	0.0	0	1484.6	1484.6	22.1	0.95	0.458	0.313	Non-Liq.	0.00
14	116.0	Unsaturated	Unsaturated	13	15	0.0	0	1600.6	1600.6	21.3	0.95	0.456	0.293	Non-Liq.	0.00
15	116.0	Unsaturated	Unsaturated	13	15	0.0	0	1716.6	1716.6	23.2	0.94	0.453	0.331	Non-Liq.	0.00
16	116.0	Unsaturated	Unsaturated	13	15	0.0	0	1832.6	1832.6	22.5	0.94	0.451	0.311	Non-Liq.	0.00
17	116.0	Unsaturated	Unsaturated	13	15	0.0	0	1948.6	1948.6	21.8	0.93	0.448	0.294	Non-Liq.	0.00
18	135.3	Unsaturated	Unsaturated	16	20	0.0	0	2083.9	2083.9	26.8	0.93	0.446	0.431	Non-Liq.	0.00
19	135.3	Unsaturated	Unsaturated	16	20	0.0	0	2219.2	2219.2	26.0	0.92	0.443	0.396	Non-Liq.	0.00
20	135.3	Unsaturated	Unsaturated	16	20	0.0	0	2354.5	2354.5	25.3	0.92	0.440	0.369	Non-Liq.	0.00
21	135.3	Unsaturated	Unsaturated	16	20	0.0	0	2489.8	2489.8	24.6	0.91	0.437	0.347	Non-Liq.	0.00
22	135.3	Unsaturated	Unsaturated	16	20	0.0	0	2625.1	2625.1	24.0	0.90	0.435	0.328	Non-Liq.	0.00
23	132.2	Unsaturated	Unsaturated	42	25	0.0	0	2757.3	2757.3	69.5	0.90	0.432	2.000	Non-Liq.	0.00
24	132.2	Unsaturated	Unsaturated	42	25	0.0	0	2889.5	2889.5	68.6	0.89	0.429	2.000	Non-Liq.	0.00
25	132.2	Unsaturated	Unsaturated	42	25	0.0	0	3021.7	3021.7	67.8	0.89	0.426	2.000	Non-Liq.	0.00
26	132.2	Unsaturated	Unsaturated	42	25	0.0	0	3153.9	3153.9	67.1	0.88	0.423	2.000	Non-Liq.	0.00
27	132.2	Unsaturated	Unsaturated	42	25	0.0	0	3286.1	3286.1	66.4	0.87	0.420	2.000	Non-Liq.	0.00
28	120.9	Unsaturated	Unsaturated	42	25	0.0	0	3407.0	3407.0	69.2	0.87	0.417	2.000	Non-Liq.	0.00
29	120.9	Unsaturated	Unsaturated	42	25	0.0	0	3527.9	3527.9	68.6	0.86	0.414	2.000	Non-Liq.	0.00
30	120.9	Unsaturated	Unsaturated	42	25	0.0	0	3648.8	3648.8	67.9	0.85	0.411	2.000	Non-Liq.	0.00
31	120.9	Unsaturated	Unsaturated	60	30	0.0	0	3769.7	3769.7	96.2	0.85	0.408	2.000	Non-Liq.	0.00
32	120.9	Unsaturated	Unsaturated	60	30	0.0	0	3890.6	3890.6	95.4	0.84	0.405	2.000	Non-Liq.	0.00
33	135.1	Unsaturated	Unsaturated	60	30	0.0	0	4025.7	4025.7	94.6	0.84	0.402	2.000	Non-Liq.	0.00
34	135.1	Unsaturated	Unsaturated	60	30	0.0	0	4160.8	4160.8	93.8	0.83	0.399	2.000	Non-Liq.	0.00
35	135.1	Unsaturated	Unsaturated	60	30	0.0	0	4295.9	4295.9	93.0	0.82	0.396	2.000	Non-Liq.	0.00
36	135.1	Unsaturated	Unsaturated	90	35	0.0	0	4431.0	4431.0	138.4	0.82	0.393	1.979	Non-Liq.	0.00
37	135.1	Unsaturated	Unsaturated	90	35	0.0	0	4566.1	4566.1	137.3	0.81	0.390	1.957	Non-Liq.	0.00
38	130.6	Unsaturated	Unsaturated	90	35	0.0	0	4696.7	4696.7	136.2	0.80	0.386	1.936	Non-Liq.	0.00
39	130.6	Unsaturated	Unsaturated	90	35	0.0	0	4827.3	4827.3	135.3	0.80	0.383	1.915	Non-Liq.	0.00
40	130.6	Unsaturated	Unsaturated	90	35	0.0	0	4957.9	4957.9	134.3	0.79	0.380	1.895	Non-Liq.	0.00
41	130.6	Unsaturated	Saturated	98	40	0.0	0	5088.5	5026.1	145.7	0.78	0.382	1.885	4.9	0.00
42	130.6	Unsaturated	Saturated	98	40	0.0	0	5219.1	5094.3	145.2	0.78	0.383	1.875	4.9	0.00
43	124.8	Unsaturated	Saturated	98	40	0.0	0	5343.9	5156.7	144.8	0.77	0.385	1.866	4.9	0.00
44	124.8	Unsaturated	Saturated	98	40	0.0	0	5468.7	5219.1	144.3	0.77	0.386	1.857	4.8	0.00
45	124.8	Unsaturated	Saturated	98	40	0.0	0	5593.5	5281.5	143.8	0.76	0.387	1.848	4.8	0.00
46	131.5	Unsaturated	Saturated	100	45	0.0	0	5725.0	5350.6	146.3	0.75	0.387	1.838	4.7	0.00
47	131.5	Unsaturated	Saturated	100	45	0.0	0	5856.5	5419.7	145.8	0.75	0.388	1.829	4.7	0.00
48	131.5	Unsaturated	Saturated	100	45	0.0	0	5988.0	5488.8	145.3	0.74	0.388	1.819	4.7	0.00
49	131.5	Unsaturated	Saturated	100	45	0.0	0	6119.5	5557.9	144.8	0.73	0.389	1.810	4.7	0.00
50	131.5	Unsaturated	Saturated	100	45	0.0	0	6251.0	5627.0	144.4	0.73	0.389	1.801	4.6	0.00
51	131.5	Unsaturated	Saturated	78	50	0.0	0	6382.5	5696.1	112.2	0.72	0.389	1.791	4.6	0.00
52	131.5	Unsaturated	Saturated	78	50	0.0	0	6514.0	5765.2	111.9	0.72	0.389	1.782	4.6	0.00
53	93.2	Unsaturated	Saturated	78	50	0.0	0	6607.2	5796.0	111.7	0.71	0.389	1.778	4.6	0.00
54	93.2	Unsaturated	Saturated	78	50	0.0	0	6700.4	5826.8	111.6	0.70	0.389	1.774	4.6	0.00
55	93.2	Unsaturated	Saturated	78	50	0.0	0	6793.6	5857.6	111.4	0.70	0.390	1.771	4.5	0.00
56	93.2	Unsaturated	Saturated	55	55	0.0	0	6886.8	5888.4	78.5	0.69	0.390	1.767	4.5	0.00
57	93.2	Unsaturated	Saturated	55	55	0.0	0	6980.0	5919.2	78.3	0.69	0.390	1.763	4.5	0.00
58	136.2	Unsaturated	Saturated	55	55	0.0	0	7116.2	5993.0	78.1	0.68	0.389	1.753	4.5	0.00
59	136.2	Unsaturated	Saturated	55	55	0.0	0	7252.4	6066.8	77.8	0.68	0.388	1.744	4.5	0.00
60	136.2	Unsaturated	Saturated	55	55	0.0	0	7388.6	6140.6	77.6	0.67	0.388	1.735	4.5	0.00
61	136.2	Unsaturated	Saturated	71	60	0.0	0	7524.8	6214.4	99.8	0.66	0.387	1.726	4.5	0.00
62	136.2	Unsaturated	Saturated	71	60	0.0	0	7661.0	6288.2	99.5	0.66	0.386	1.717	4.4	0.00
63	139.7	Unsaturated	Saturated	71	60	0.0	0	7800.7	6365.5	99.2	0.65	0.385	1.708	4.4	0.00
64	139.7	Unsaturated	Saturated	71	60	0.0	0	7940.4	6442.8	98.9	0.65	0.385	1.699	4.4	0.00
65	139.7	Unsaturated	Saturated	71	60	0.0	0	8080.1	6520.1	98.6	0.64	0.384	1.690	4.4	0.00
66	139.7	Unsaturated	Saturated	46	65	0.0	0	8219.8	6597.4	63.7	0.64	0.383	1.682	4.4	0.00
67	139.7	Unsaturated	Saturated	46	65	0.0	0	8359.5	6674.7	63.5	0.63	0.382	1.673	4.4	0.00
68	113.7	Unsaturated	Saturated	74	70	0.0	0	8473.2	6726.0	101.9	0.63	0.381	1.667	4.4	0.00
69	113.7	Unsaturated	Saturated	74	70	0.0	0	8586.9	6777.3	101.7	0.62	0.380	1.661	4.4	0.00
70	113.7	Unsaturated	Saturated	74	70	0.0	0	8700.6	6828.6	101.5	0.62	0.379	1.656	4.4	0.00

BORING LOG NUMBER 1

Pacific Charter School **Date: 05/05/16**

File No. 21227 **Method: 8-inch Diameter Hollow Stem Auger**

ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt
				0 --		6-inch Asphalt, No Base
				-		
				1 --		FILL: Silty Sand, dark brown, moist, medium dense, fine grained
				-		
				2 --		
2.5	15	7.8	109.7	-		
				3 --		
				-	SM	ALLUVIUM: Silty Sand, dark brown, moist, medium dense, fine grained
				4 --		
				-		
5	6	3.8	SPT	5 --		
				-	SP	Sand, dark yellowish brown, moist, medium dense, fine grained
				6 --		
				-		
				7 --		
7.5	15	10.3	98.0	-		
				8 --	SP/SM	Silty Sand to Sand, dark yellowish brown, moist, medium dense, fine grained
				-		
				9 --		
				-		
10	11	5.8	SPT	10 --		
				-	SP	Sand, yellowish to grayish brown, moist, medium dense, fine grained
				11 --		
				-		
				12 --	SM/SP	Silty Sand to Sand, dark brown, moist, medium dense, fine grained
12.5	38	3.5	112.1	-		
				13 --	SP	Sand, dark brown, moist, medium dense, fine grained
				-		
				14 --		
				-		
15	13	3.4	SPT	15 --		
				-		
				16 --		
				-		
				17 --		
17.5	25	11.8	121.0	-		
				18 --	SM	Silty Sand, dark brown, moist, medium dense, fine grained
				-		
				19 --		
				-		
20	16	10.5	SPT	20 --		
				-		
				21 --		
				-		
				22 --		
22.5	77	2.5	129.0	-		
				23 --	SP/SW	Sand, dark yellowish brown, moist, very dense, fine to coarse grained, some cobbles
				-		
				24 --		
				-		
25	42	3.5	SPT	25 --		
				-		

BORING LOG NUMBER 1

Pacific Charter School

File No. 21227

ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				- 26 -- - 27 --		
27.5	82	3.1	117.3	- 28 -- - 29 --		
30	60	4.1	SPT	- 30 -- - 31 --		
32.5	100/8"	3.9	130.0	- 32 -- - 33 --		
35	90	4.3	SPT	- 34 -- - 35 --		
37.5	50/3"	7.1	122.0	- 36 -- - 37 --		
40	98	4.1	SPT	- 38 -- - 39 --		
42.5	100/12"	27.6	97.8	- 40 -- - 41 -- - 42 --		
				- 43 -- - 44 --	SP/ML	Sand to Sandy Silt, dark grayish brown, moist, very dense, fine to medium grained, very stiff
45	50/2"	4.2	SPT	- 45 -- - 46 --	SP/SW	Sand, dark yellowish brown, moist, very dense, fine to coarse grained, some cobbles
47.5	50/3"	2.4	128.4	- 47 -- - 48 --		
50	78	3.0	SPT	- 49 -- - 50 --		

BORING LOG NUMBER 1

Pacific Charter School

File No. 21227

ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				- 51 -- - 52 --		
52.5	50/3"	2.4	91.1	- 53 -- - 54 -- -		
55	55	13.8	SPT	55 -- - 56 -- - 57 --	SM/ML	Silty Sand to Sandy Silt with Clay, dark brown, moist, stiff, dense, fine grained, minor gravel
57.5	50/5"	10.5	123.2	- 58 -- - 59 -- -	SM	Silty Sand, dark grayish brown, mottling, moist, very dense, fine grained
60	71	7.8	SPT	60 -- - 61 -- - 62 --	SM/SP	Silty Sand to Sand, dark grayish brown, moist, dense, fine grained
62.5	50/4"	14.9	121.6	- 63 -- - 64 -- -	SM/SP	Silty Sand to Sand, dark grayish brown, moist, very dense, fine grained
65	46	16.4	SPT	65 -- - 66 -- - 67 --	SM/ML	Silty Sand to Sandy Silt, dark grayish brown, moist, medium dense, fine grained, stiff
67.5	50/3"	8.2	105.2	- 68 -- - 69 -- -	SM/SP	Silty Sand to Sand, dark yellowish brown, moist, very dense, fine grained
70	74	4.8	SPT	70 -- - 71 -- - 72 -- - 73 -- - 74 -- - 75 -- -		Total Depth 70 feet No Water Fill to 3 feet NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual. Used 8-inch diameter Hollow-Stem Auger 140-lb. Automatic Hammer, 30-inch drop Modified California Sampler used unless otherwise noted SPT=Standard Penetration Test

Appendix D.4

Update of Preliminary Geotechnical Assessment

Geotechnologies, Inc.
Consulting Geotechnical Engineers
439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

February 10, 2017
File No. 21315

University of Southern California
Real Estate and Asset Management
3335 South Figueroa Street
Unit G/UGW 110
Los Angeles, California 90089

Attention: Brian League

Subject: Update of Preliminary Geotechnical Assessment
Proposed Lucas Museum of Narrative Art
Exposition Park Site, 3748 - 3946 S. Vermont, Los Angeles, California

References: *Reports by Geotechnologies, Inc.:*
Preliminary Geotechnical Assessment, dated October 27, 2016;
Supplemental Liquefaction Hazard Information, dated October 31, 2016.

City of Los Angeles, Department of Building and Safety:
Soils Report Approval Letter, Log# 95503, dated November 23, 2016.

Dear Mr. League:

1.0 INTRODUCTION

Herein this firm presents an update of the referenced Preliminary Geotechnical Assessment, dated October 27, 2016, which has been reviewed and approved by the City of Los Angeles. This update was prompted by the recent inclusion of a new parking structure, to be built to the south of the proposed museum structure. Several new lots have been added to the southern portion of the subject site, to allow for the construction of the proposed parking structure.

This document presents the results of the preliminary geotechnical assessment of the subject site. This preliminary report is intended to discuss the subsurface conditions anticipated at the site, discuss the potential for seismic hazards that could affect the site, and provide an opinion regarding the feasibility of the proposed project from the geotechnical perspective. This report is based on review of available project files, and review of published geotechnical and geological information.

At this time, subsurface exploration of the subject site has not been completed for the proposed project. Therefore, this document is not intended for submission to the Building Official for building permit purposes. A comprehensive geotechnical engineering investigation including

subsurface exploration and testing will be necessary in order to provide design recommendations for the proposed development.

2.0 PROJECT DESCRIPTION

Based on review of the Site Plan prepared by mad architects, dated January 31, 2017, it is the understanding of this firm that the proposed project consists of the construction of a museum development.

A new museum structure is currently being proposed within the northern portion of the site. It is anticipated that the museum structure will be up to five levels in height, and will be built over one to two subterranean parking levels.

In addition, a new subterranean parking structure will be built within the southern portion of the site, adjacent to the proposed museum structure. It is anticipated that this parking structure may consist of two to three levels of underground parking.

Based on the experience of this firm, it is anticipated that the finished grade of the proposed structures may extend to depths ranging between 12 and 36 feet below the existing site grade.

3.0 SITE CONDITIONS

The subject site is located within the western portion of Exposition Park. The site is bounded by the Jesse Brewer Jr. Park to the north, Bill Robertson Lane to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west. The site is currently intersected along the east-west direction by Exposition Park Drive and Leighton Avenue. The site is shown relative to nearby topographic features in the enclosed Vicinity Map.

The existing site grade is relatively level, with no pronounced highs or lows. The site is currently developed with three paved parking lots, and an athletic field. Vegetation at the site consists of several mature trees located along its western and central areas. Drainage across the site appears to be by sheetflow to the city streets.

4.0 PROJECTS IN THE VICINITY OF THE SITE BY GEOTECHNOLOGIES, INC.

This firm has provided geotechnical services on many projects throughout the City of Los Angeles. Some of those projects are in the immediate vicinity of the subject site. A brief summary of the three projects closest to the subject site is provided below. The locations of these projects are indicated on the enclosed Vicinity Map.

- *Geotechnical Engineering Investigation, Proposed Charter School, 3937-3947 Vermont Avenue, Los Angeles, California, dated June 2, 2016, revised August 25, 2016, File No. 21227.*

  As shown in the enclosed Vicinity Map, this site is located immediately to the west of the subject site, across Vermont Avenue. This geotechnical investigation pertained to the design of a 2-story school structure, proposed to be built near the existing grade.

  The investigation for this project included five borings, drilled to depths ranging between 10 and 70 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of silty sands and sands. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 22½ feet below grade, and dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 70 feet below grade.

  Based on a site-specific liquefaction analysis, the report indicates the site soils would not be prone to liquefaction.

- *Draft Geotechnical Engineering Investigation, Proposed Educational Building, University of Southern California, Southeast Corner of Exposition Boulevard and Watt Way, Los Angeles, California, dated February 23, 2016, File No. 21125.*

  As shown in the enclosed Vicinity Map, this site is located to the northeast of the subject site, across Exposition Boulevard. This draft geotechnical investigation pertained to the design of a 3-story educational structure, proposed to be built at-grade.

  The investigation for this project included three borings, drilled to depths ranging between 20 and 50 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of silty sands and sands. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 15 feet below grade, and dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 50 feet below grade.

  The report indicates the site soils would not be prone to liquefaction.

  Geotechnical Engineering Investigation, Proposed Museum Expansion, California Science Center, 700 Exposition Park Drive, Los Angeles, California, dated February 24, 2014, File No. 20445.

As shown in the enclosed Vicinity Map, this site is located within the northeastern area of Exposition Park, approximately ¼-mile to the east of the subject site. This geotechnical investigation pertained to the design of an expansion to the California Science Center.

The investigation for this project included three borings, drilled to depths ranging between 80 and 130 feet below grade. The borings encountered limited fill materials overlying natural alluvial soils. The natural alluvial soils were observed to consist of a mixture of sands, silt, and limited amounts of clay. The native alluvial soils were observed to be medium dense to dense to an approximate depth of 20 feet below grade, and medium dense to very dense below that depth. Groundwater was not encountered to the maximum explored depth of 130 feet below grade.

The report indicates the site soils would not be prone to liquefaction.

5.0 ANTICIPATED SUBSURFACE CONDITIONS

5.1 Geologic Materials

Based on review of a the previous investigations conducted by this firm in the vicinity of the site, review of the enclosed geologic map by Dibblee (1991), and this firm's experience in this area of the City of Los Angeles, it is anticipated the soils underlying the subject site consist of alluvial soils. These alluvial soils generally consist of mixtures of sands and silty sands, with varying amounts of gravels and cobbles. The alluvium is typically medium dense to very dense, or stiff, and well consolidated, with expansion characters that range from very low to moderate. However, local variations in moisture content and soil type may occur.

It is anticipated that some amount of existing fill materials will overlie the native alluvium in and around the subject site. These fill materials are expected to be completely removed within the limits of the proposed subterranean parking levels, exposing dense native alluvial soils at the subgrade.

5.2 Groundwater

A previous investigation conducted by this firm immediately to the west of the subject site, did not encounter groundwater to a depth of 70 feet below grade. Another investigation also conducted by this firm approximately ¼-mile to the east of the site, did not encounter groundwater to a depth of 130 feet below grade. It is the opinion of this firm that the current groundwater level at the site would be deeper than 70 feet below grade.

According to groundwater data provided in the Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, the historic-high groundwater level for the site was on the order of 40 feet below the ground surface (CDMG, 1998, Revised 2006). A copy of the historic high water map is enclosed herein.

Fluctuations in the level of groundwater would be expected to occur over time due to variations in rainfall, temperature, and other factors. Fluctuations also may occur in the vicinity of the site.

6.0 CITY OF LOS ANGELES METHANE ZONE

Based on review of the NavigateLA Website, developed by the City of Los Angeles, Bureau of Engineering, Department of Public Works, the subject site is not located within the limits of a City of Los Angeles Methane Zone or Methane Buffer Zone. A copy of this map is enclosed herein.

7.0 REGIONAL GEOLOGY

The subject site is located within the northern portions of the Los Angeles Basin and Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-west trending reverse faults that form the southern margin of the Transverse Ranges.

The Los Angeles Basin is located at the northern end of the Peninsular Ranges Geomorphic Province. The basin is bounded by the east and southeast by the Santa Ana Mountains and San Joaquin Hills, and to the northwest by the Santa Monica Mountains. Over 22 million years ago, the Los Angeles Basin was a deep marine basin formed by tectonic forces between the North American and Pacific plates. Since that time, over 5 miles of marine and non-marine sedimentary rock, as well as intrusive and extrusive igneous rocks, have filled the basin. During the last 2 million years, defined by the Pleistocene and Holocene epochs, the Los Angeles Basin and surrounding mountain ranges have been uplifted to form the present day landscape. Erosion of the surrounding mountains has resulted in deposition of unconsolidated sediments in low-lying areas by rivers such as the Los Angeles River. Areas that have experienced subtle uplift have been eroded with gullies (Yerkes, 1965).

The site is underlain by alluvial sediments deposited by river and stream action, most likely in excess of 150 feet of depth.

8.0 SEISMIC HAZARDS

8.1 Surface Rupture

Review of the Earthquake Zones of Required Investigation Map of the Hollywood Quadrangle (CGS, 2014) indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

8.2 Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazards Map of the Hollywood Quadrangle by the State of California (CDMG, 1999) classifies the southwestern portion of the site as part of a Liquefiable area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake. A copy of this Seismic Hazard Zones Map is enclosed herein.

A previous investigation conducted by this firm immediately to the west of the subject site, did not encounter groundwater to a depth of 70 feet below grade. Another investigation also conducted by this firm approximately ¼-mile to the east of the site, did not encounter groundwater to a depth of 130 feet below grade. According to groundwater data provided in the Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, the historic-high groundwater level for the site was on the order of 40 feet below the ground surface (CDMG, 1998, Revised 2006).

A site-specific liquefaction analysis was conducted by this firm as part of the previous investigation conducted immediately to the west of the subject site. The analysis, which was performed to a depth of 70 feet below grade, was based on a historically highest groundwater level of 40 feet. The site-specific liquefaction analysis determined that the site soils were not susceptible to liquefaction potential.

Based on the depth to the historically highest and current groundwater levels, results from the site-specific liquefaction conducted immediately to the west of the subject site, and the density of the alluvial soils observed in previous investigations conducted in the vicinity of the site, it is the opinion of this firm that the potential for liquefaction at the subject site is considered to be low. Nonetheless, a site specific liquefaction analysis should be performed as part of a design level geotechnical investigation.

8.3 Dynamic Dry Settlement

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

Some seismically-induced dry settlement of the proposed structures could be expected at the subject site as a result of strong ground-shaking. However, based on the typically dense, stiff, and consolidated nature of the alluvial soils expected to underlie the site, the potential dynamic settlements would be expected to be negligible.

8.4 Tsunamis and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the County of Los Angeles Flood and Inundation Hazards Map (Leighton, 1990) indicates the site does not lie within mapped tsunami inundation boundaries.

Review of the County of Los Angeles Flood and Inundation Hazards Map, (Leighton, 1990), indicates the site lies within the mapped inundation boundaries of the Hansen and Sepulveda Reservoirs. A determination of whether a higher site elevation would remove the site from the potential inundation zones is beyond the scope of this assessment.

8.5 Landsliding

The probability of seismically-induced landslides affecting the subject development is considered to be remote, due to the lack of significant slopes on the site and surrounding areas.

9.0 PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

Based on the research of other projects in the site vicinity, and this firm's experience in this area of the City of Los Angeles, it is the opinion of this firm the proposed development is feasible from a geotechnical engineering standpoint. Once the proposed project proceeds to design and

development, it is recommended a comprehensive geotechnical investigation should be prepared in order to provide design parameters and recommendations for the proposed project.

The Seismic Hazards Map of the Hollywood Quadrangle by the State of California (CDMG, 1999) classifies the southwestern portion of the site as part of a Liquefiable area. However, as explained in Section 8.2 of this report, it is the opinion of this firm that as site-specific liquefaction analysis would determine that the site soils are not susceptible to liquefaction.

The proposed structures will be built over one to three subterranean levels. Based on the experience of this firm, it is anticipated that the finished grade of the proposed subterranean levels may range between 12 and 36 feet below the existing grade. It is anticipated that dense native alluvial soils, suitable for support of new foundations, would be exposed at the subgrade of the subterranean levels.

The type of foundations to support the proposed structure will be determined once structural information is available. While the use of conventional foundations could be feasible for the project, it has been the experience of this firm that museum structures typically require an alternate foundation system, such as deepened foundation system, or a mat foundation, in order to satisfy their large loading demand.

Based on previous geotechnical investigation performed by this firm in the vicinity of the site, it is the opinion of this firm that the current groundwater level at the site would be deeper than 70 feet below grade. The mapped historically highest groundwater level for the site is on the order of 40 feet below the existing site grade. Based on these levels, groundwater is not expected to affect the proposed development.

Due to the depth of the proposed subterranean levels, and their proximity of the property lines, it should be anticipated that shoring will be required for construction of the subterranean levels. At this time, solder piles would be recommended for shoring.

As with all of Southern California, the site is subject to potential strong ground motion should a moderate to strong earthquake occur on a local or regional fault. The proposed project should be completed in accordance with the provisions of the most current City of Los Angeles Building Code. In either case, design of the project in accordance with the current building code provisions will be intended to mitigate the potential effects of strong ground shaking.

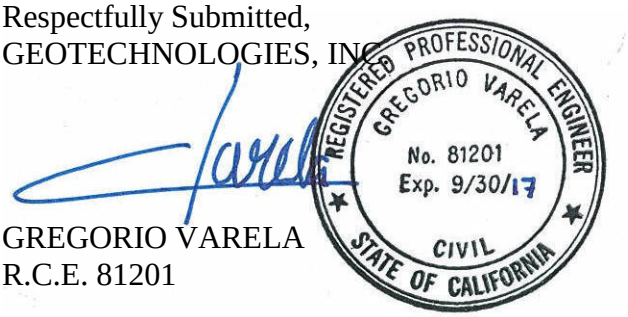
10.0 CLOSURE

As indicated above, this preliminary assessment is based on available geotechnical information and published geologic data. Subsurface exploration of the subject site has not been completed at this time. A comprehensive geotechnical engineering investigation including subsurface

exploration and testing will be necessary in order to provide design recommendations for the proposed development.

Geotechnologies, Inc. appreciates the opportunity to provide our services on this project. Should you have any questions please contact this office.

Respectfully Submitted,
GEOTECHNOLOGIES, INC.



GREGORIO VARELA
R.C.E. 81201

GV:km

Distribution: (4) Addressee

Email to: [brian.league@usc.edu]
[matt@agd-landuse.com]

Enclosures: References
Vicinity Map
Local Geologic Map
Historically Highest Groundwater Levels Map
Seismic Hazard Zone Map
Methane Zone Risk Map

REFERENCES

California Department of Conservation, Division of Mines and Geology, 1998 (Revised 2006), Seismic Hazard Zone Report of the Hollywood 7½-Minute Quadrangle, Los Angeles County, California., C.D.M.G. Seismic Hazard Zone Report 026, map scale 1:24,000.

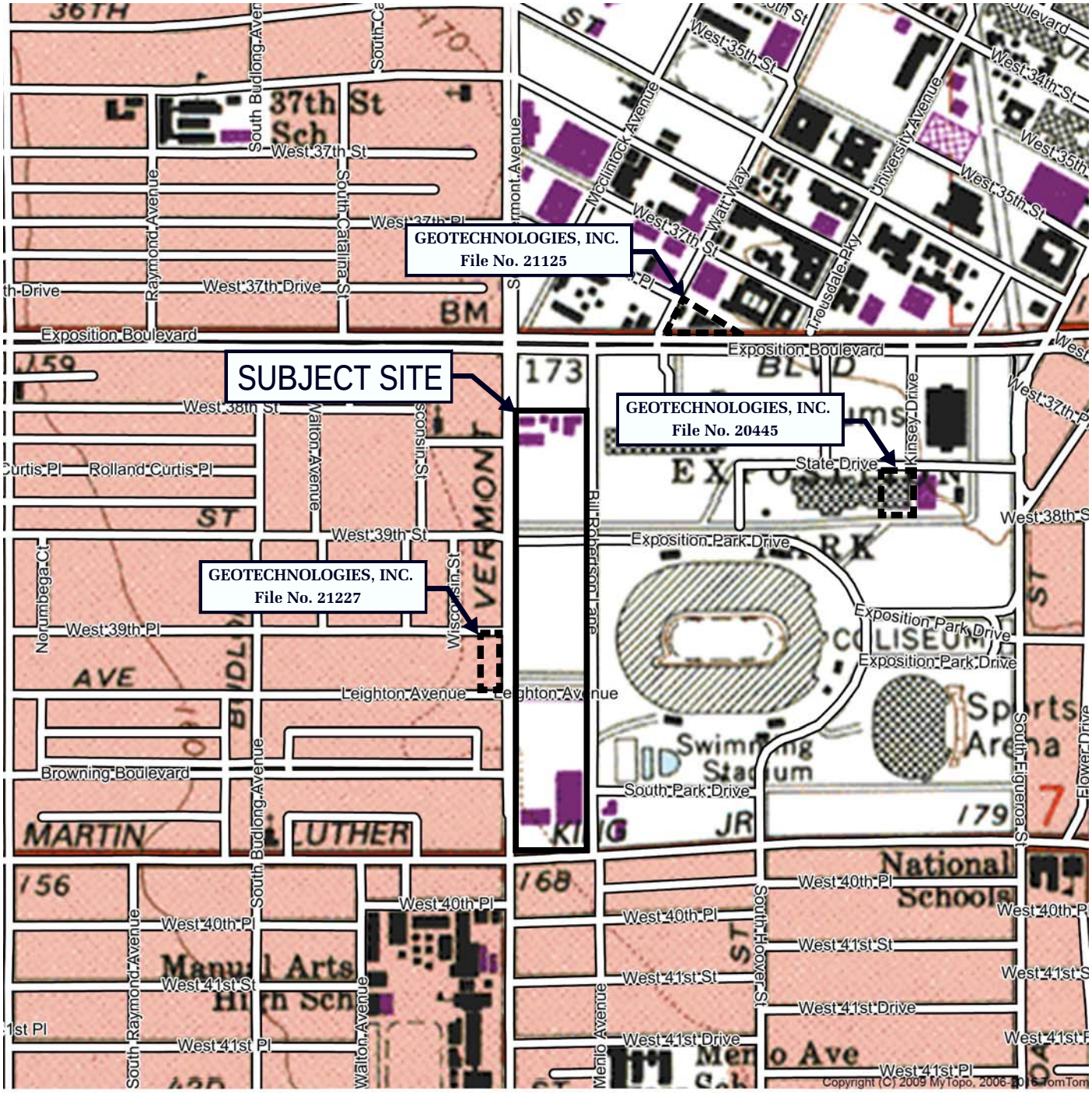
California Department of Conservation, Division of Mines and Geology, 1999, Seismic Hazard Zones Map, Hollywood 7½-minute Quadrangle, CDMG Seismic Hazard Zone Mapping Act of 1990.

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Dibblee, T.W. Jr., 1991, Geologic Map of the Hollywood and Burbank (South ½), Quadrangles, Division of Mines and Geology, DF Map #DF-30, Map Scale 1:24,000.

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Yerkes, R.F., McCulloh, T.H., Schoellhamer, J.E., Vedder, J.G., 1965, Geology of the Los Angeles Basin, Southern California-An Introduction, U.S. Geological Professional Paper 420-A.



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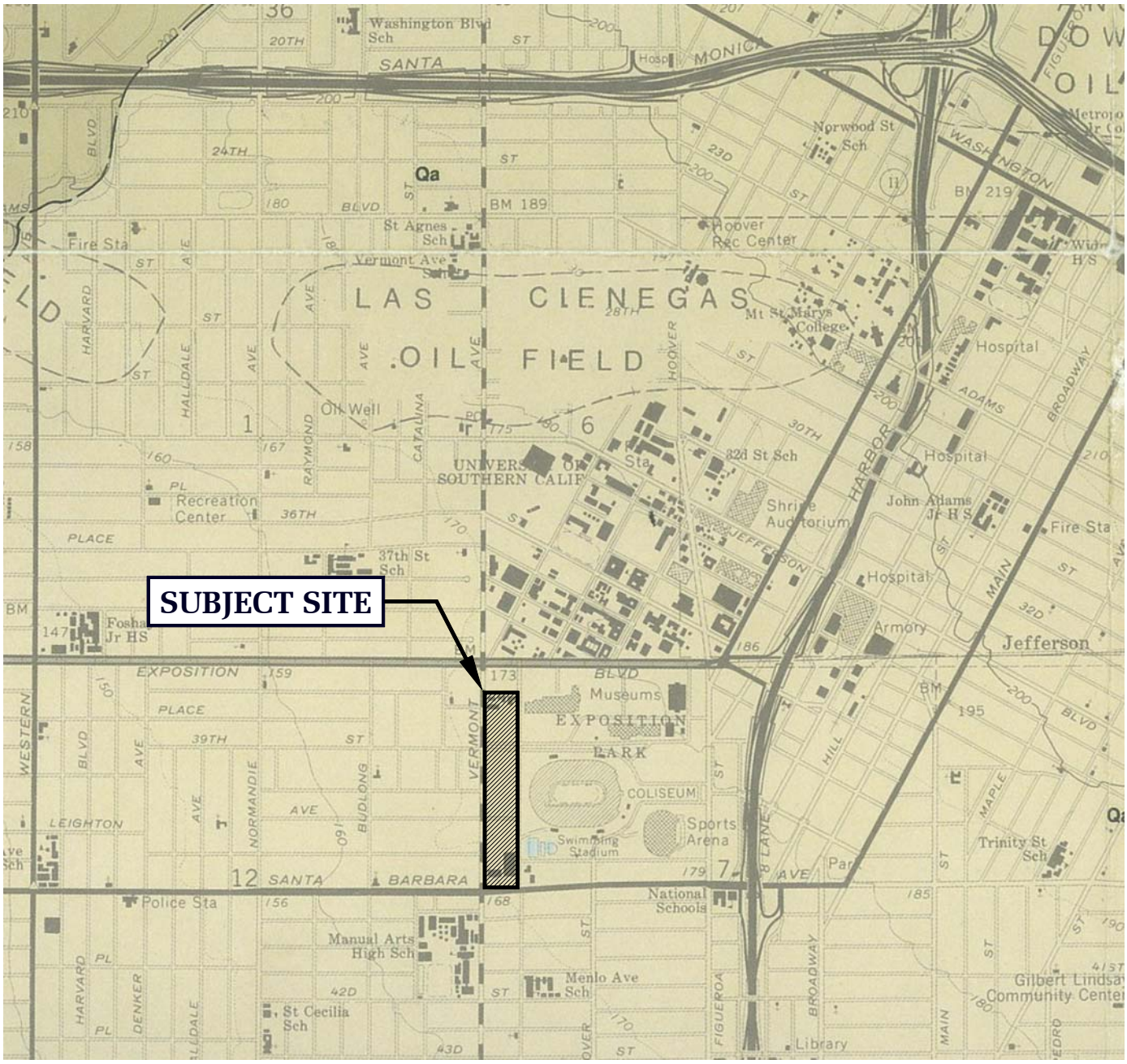
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VICINITY MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

U.S.C.
PROPOSED LUCAS MUSEUM

FILE NO. 21315



LEGEND

Qa: **Surficial Sediments - Alluvium consisting of clay, sand and gravel**

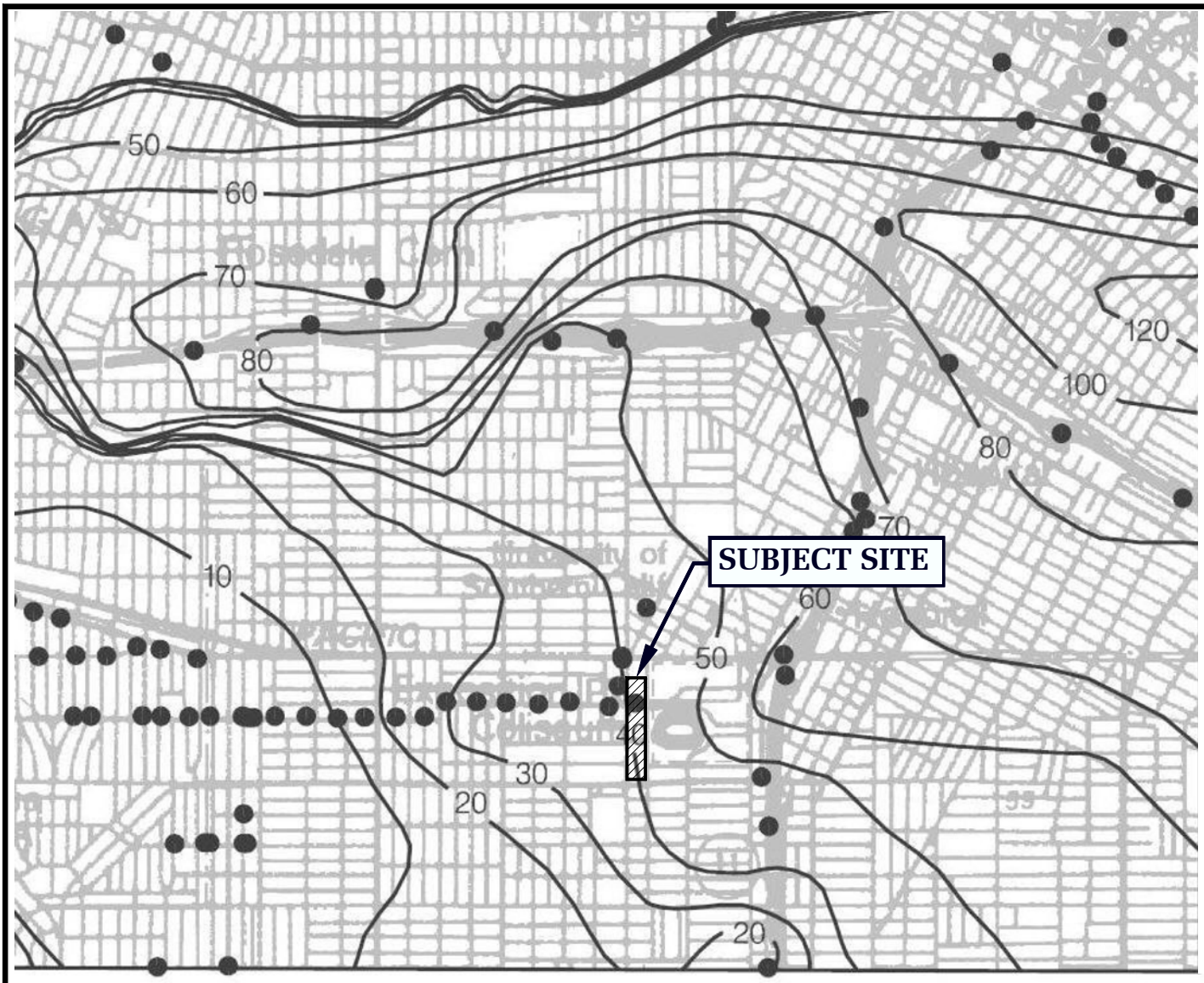
REFERENCE: DIBBLEE, T.W., (1991), GEOLOGIC MAP OF THE HOLLYWOOD AND BURBANK (SOUTH 1/2) QUADRANGLES, MAP #DF-30

LOCAL GEOLOGIC MAP

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FILE NO. 21315

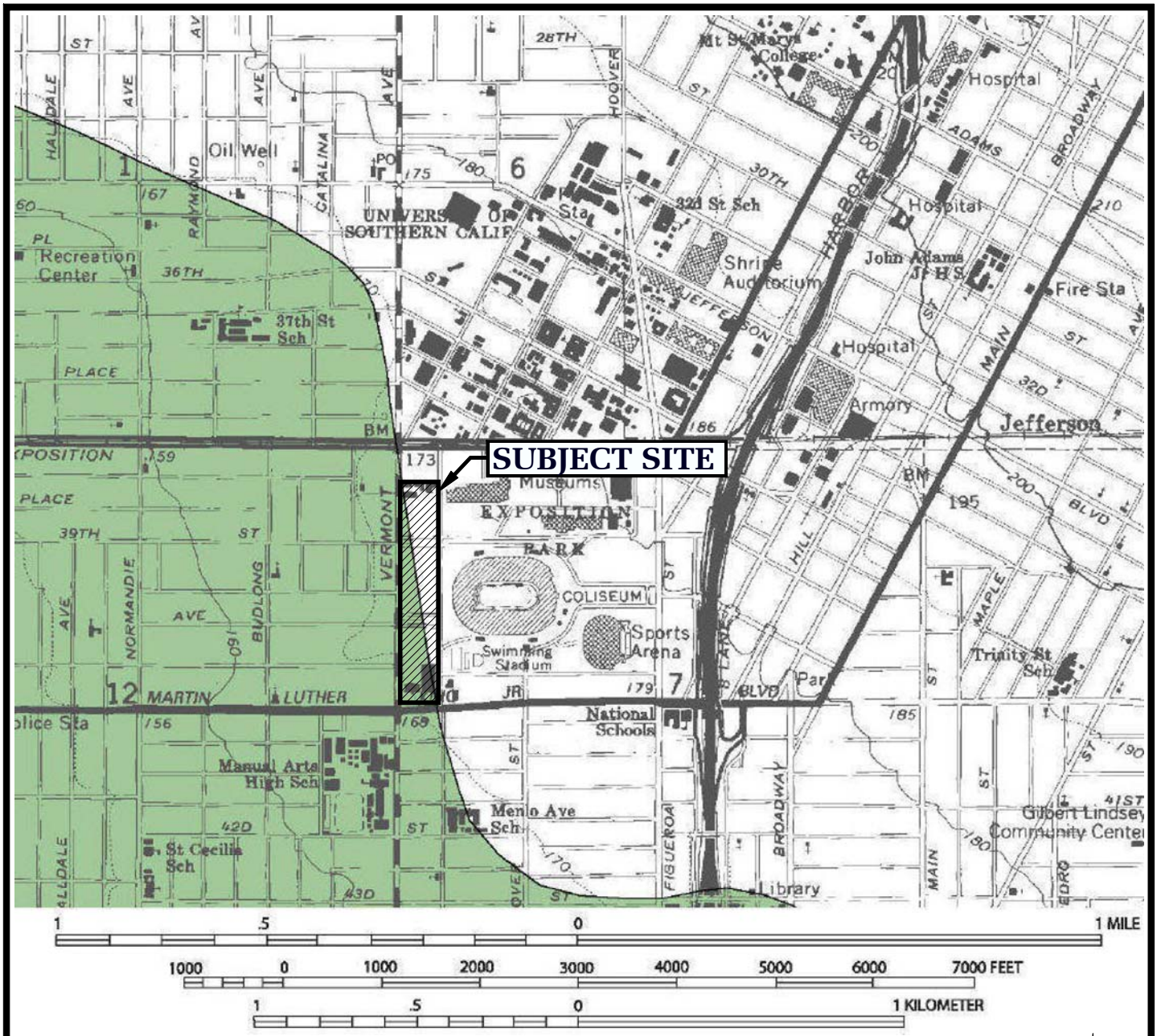


REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 026
HOLLYWOOD 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2006)

HISTORICALLY HIGHEST GROUNDWATER LEVELS

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LIQUEFACTION AREA

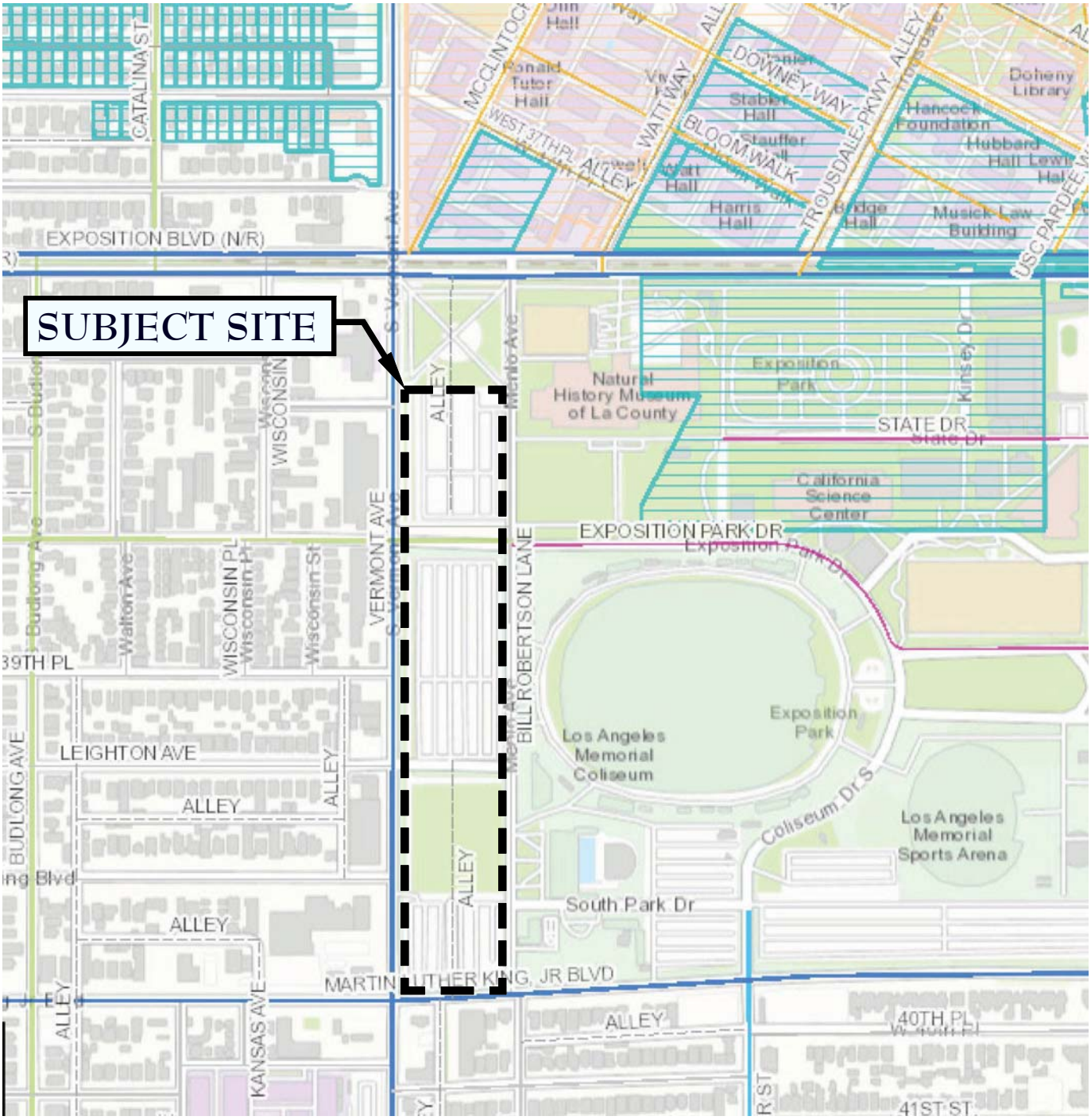
REFERENCE: SEISMIC HAZARD ZONE MAP, HOLLYWOOD QUADRANGLE, 1999, DIVISION OF MINES AND GEOLOGY

SEISMIC HAZARD ZONE MAP

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Methane Zone

Methane Buffer Zone

REFERENCE: http://navigatela.lacity.org/navigatela/

METHANE ZONE RISK MAP

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Appendix E

Noise Worksheets

Lucas Museum of Narrative Art Project

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R1
Date: 9/8/2016

Time	Overload	Leq	Lmax	L10	L90
11:31:50 AM	No	70	76.5	73	57.7
11:32:50 AM	No	63.7	72.3	68.7	50.9
11:33:50 AM	No	68.1	72.7	71.4	58.1
11:34:50 AM	No	69.3	78.8	72.3	59.1
11:35:50 AM	No	71	77.4	73	66.3
11:36:50 AM	No	65.1	73.1	69.1	53.2
11:37:50 AM	No	70.5	79.1	73	60.4
11:38:50 AM	No	69.6	75.6	73.3	62.1
11:39:50 AM	No	68.7	75	72.4	57.3
11:40:50 AM	No	69.9	77.1	73.3	62.9
11:41:50 AM	No	71.1	78.4	75.2	55.1
11:42:50 AM	No	65.7	73	70.8	55.5
11:43:50 AM	No	68.6	77.1	72.3	56.5
11:44:50 AM	No	59.1	64.5	62.3	52.1
11:45:50 AM	No	63.6	71.5	68.5	52.8
		68.6			

Time	Overload	Leq	Lmax	L10	L90
10:42:51 PM	No	67.6	73.1	71.9	51.3
10:43:51 PM	No	63.6	70.5	68.1	55.7
10:44:51 PM	No	66.7	76.5	69.9	53.6
10:45:51 PM	No	65.1	73.8	68.1	59.2
10:46:51 PM	No	67.1	75.9	71.1	53.8
10:47:51 PM	No	67.4	75.5	71.9	56.7
10:48:51 PM	No	57.6	64.3	61.9	49.4
10:49:51 PM	No	66.8	74.3	73.2	50.3
10:50:51 PM	No	61.5	73.6	66.6	48.7
10:51:51 PM	No	67.4	74.7	72	52.2
10:52:51 PM	No	64.9	74.7	68.5	56.3
10:53:51 PM	No	63.3	71.5	68	50.3
10:54:51 PM	No	64.9	71.9	70.4	48.9
10:55:51 PM	No	66.9	75.2	70.8	55.3
10:56:51 PM	No	64.5	73.8	69	51.1
		65.6			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R2
Date: 9/8/2016

Time	Overload	Leq	Lmax	L10	L90
12:25:39 PM	No	55.8	59.8	59	52.4
12:26:39 PM	No	56.1	64.2	58.1	51.2
12:27:39 PM	No	56.2	60.3	57.6	54.1
12:28:39 PM	No	54.5	61.1	58.4	50.1
12:29:39 PM	No	55.8	59.3	58.1	52.3
12:30:39 PM	No	55.2	57.6	56.9	52.7
12:31:39 PM	No	54.9	61.1	58.3	51.5
12:32:39 PM	No	54.9	58.2	56.8	53
12:33:39 PM	No	56.1	59.4	58.4	52.7
12:34:39 PM	No	58.1	63.6	60.6	53.5
12:35:39 PM	No	55.3	62.5	58.2	50.9
12:36:39 PM	No	65	73.8	71.1	53.8
12:37:39 PM	No	59.6	65.5	62.3	56.3
12:38:39 PM	No	56.8	60.8	57.9	54.7
12:39:39 PM	No	60.2	63.9	62.9	54.7
		58.1			

Time	Overload	Leq	Lmax	L10	L90
11:23:09 PM	No	51.7	58.3	55.8	47.1
11:24:09 PM	No	52.7	62.4	54	47.3
11:25:09 PM	No	51.9	61.2	54.1	47.5
11:26:09 PM	No	50.5	53.3	52.7	47.7
11:27:09 PM	No	51	55.7	54.3	46.9
11:28:09 PM	No	51.2	55.6	54.1	46.3
11:29:09 PM	No	49.5	54.5	52.6	46.1
11:30:09 PM	No	55.3	62.5	57.7	51.7
11:31:09 PM	No	52.6	57.7	55.9	49
11:32:09 PM	No	51.3	57.6	52.9	47.9
11:33:09 PM	No	53	58.7	56.7	48.4
11:34:09 PM	No	50.8	53.9	52.9	46.9
11:35:09 PM	No	49	55.5	53.4	44.4
11:36:09 PM	No	51.6	56.2	53.6	45.7
11:37:09 PM	No	50.9	56.1	53.8	48.2
		51.8			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R3
Date: 9/8/2016

Time	Overload	Leq	Lmax	L10	L90
11:11:27 AM	No	53.8	57.7	55.3	52.5
11:12:27 AM	No	55	59.8	56.4	53
11:13:27 AM	No	54.5	56	55.5	53.3
11:14:27 AM	No	54.8	65.6	54.3	51.9
11:15:27 AM	No	60.6	66.8	65.2	53.5
11:16:27 AM	No	53.2	55.5	54	52.1
11:17:27 AM	No	55.4	57.9	56.2	54.4
11:18:27 AM	No	60.4	69.1	66.3	53.6
11:19:27 AM	No	54.8	56.3	55.6	54.2
11:20:27 AM	No	53.9	55.3	54.7	53.2
11:21:27 AM	No	54.2	57.8	54.9	53.4
11:22:27 AM	No	55.2	60	56.8	53.6
11:23:27 AM	No	54.4	56.3	55.6	53.3
11:24:27 AM	No	55.1	58.8	56.3	54.2
11:25:27 AM	No	55.4	60.5	57.4	53.5
		56			

Time	Overload	Leq	Lmax	L10	L90
10:19:42 PM	No	52.8	58.1	55.6	50
10:20:42 PM	No	53.3	57.3	54.4	51.3
10:21:42 PM	No	54.9	60.5	57.9	51.1
10:22:42 PM	No	57.9	63.2	61.8	51.4
10:23:42 PM	No	55	60.6	58.6	50.9
10:24:42 PM	No	53.1	59.8	55.2	50.7
10:25:42 PM	No	52.1	58.2	53.7	50.7
10:26:42 PM	No	54.7	62	56.9	50.7
10:27:42 PM	No	57.8	67.8	62.5	49.9
10:28:42 PM	No	56.9	68.5	58	51.1
10:29:42 PM	No	57.6	68.3	59	51.5
10:30:42 PM	No	53.9	58.1	55.8	51.5
10:31:42 PM	No	53.5	57.8	56	50.4
10:32:42 PM	No	53.4	58	56.4	49.9
10:33:42 PM	No	53.9	58	56.5	51
		55.2			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R4
Date: 9/8/2016

Time	Overload	Leq	Lmax	L10	L90
12:50:07 PM	No	53.5	56.9	55.6	52.1
12:51:07 PM	No	54.2	57.7	56.5	51.3
12:52:07 PM	No	52.6	58.9	55.1	50.3
12:53:07 PM	No	56.1	63	59.4	50
12:54:07 PM	No	50.3	52.1	51.6	49.2
12:55:07 PM	No	51	54.8	53.7	48.6
12:56:07 PM	No	51.3	54.5	52.7	49.9
12:57:07 PM	No	58.7	69.4	63.5	51.5
12:58:07 PM	No	51.1	52.9	52.2	50
12:59:07 PM	No	51.8	54.6	53.3	49.4
1:00:07 PM	No	53.5	59.9	57.1	49.1
1:01:07 PM	No	54.7	59.3	58.3	51.6
1:02:07 PM	No	51	53.2	52.7	49.7
1:03:07 PM	No	53.3	58.6	55.3	50.9
1:04:07 PM	No	53	60	55.1	50.1
		53.7			

Time	Overload	Leq	Lmax	L10	L90
11:46:24 PM	No	47.4	50	48.6	46.7
11:47:24 PM	No	48.8	51.9	50.5	47.3
11:48:24 PM	No	51.1	55.6	53.7	48.3
11:49:24 PM	No	47.3	50.3	48.1	46.5
11:50:24 PM	No	51.3	57.7	55.2	47
11:51:24 PM	No	49.8	53.5	52.3	47
11:52:24 PM	No	49.2	52.5	51.5	47.2
11:53:24 PM	No	47.9	50.8	48.3	47.3
11:54:24 PM	No	58.8	68	64.4	47.7
11:55:24 PM	No	48.9	55.7	51	46.8
11:56:24 PM	No	48.5	53.4	50	47.2
11:57:24 PM	No	48.5	52.5	50.1	46
11:58:24 PM	No	47.9	53.7	49.8	46.1
11:59:24 PM	No	48.3	52.1	49.6	46.7
12:00:24 AM	No	47.4	51.4	48.9	46.3
		50.9			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R5
Date: 9/8/2016

Time	Overload	Leq	Lmax	L10	L90
12:00:36 PM	No	63	74.8	65.9	55.7
12:01:36 PM	No	58	67.4	62.9	50.3
12:02:36 PM	No	60.1	71.2	62.6	52.4
12:03:36 PM	No	68.1	82.5	68.4	55.5
12:04:36 PM	No	57.9	64.1	60.8	53.8
12:05:36 PM	No	69.9	82.2	73.9	54.5
12:06:36 PM	No	58.9	66.4	61.5	55.6
12:07:36 PM	No	61.6	70.9	64.1	56.3
12:08:36 PM	No	60.4	70.9	64.2	50.5
12:09:36 PM	No	57.2	68.6	60.4	46.1
12:10:36 PM	No	55	64.5	57.1	48.8
12:11:36 PM	No	58.6	68.1	62.5	52.4
12:12:36 PM	No	57	65.6	60.8	49.9
12:13:36 PM	No	60.3	73.2	60.7	51.8
12:14:36 PM	No	53.5	57.8	56.2	49
		62.6			

Time	Overload	Leq	Lmax	L10	L90
11:00:27 PM	No	59.7	72.8	62.1	44.4
11:01:27 PM	No	56.3	67.6	57.8	44.1
11:02:27 PM	No	48.5	54.8	51.7	44
11:03:27 PM	No	55.8	66.4	58.9	44.9
11:04:27 PM	No	50.9	59.8	54.9	44
11:05:27 PM	No	51.3	62.7	54.5	43.5
11:06:27 PM	No	53.1	63.3	56.5	44.5
11:07:27 PM	No	54.2	65.2	57.8	44.1
11:08:27 PM	No	54.4	66.4	58	44
11:09:27 PM	No	52.1	62.1	55.5	45.3
11:10:27 PM	No	56.7	64.1	59.8	48.6
11:11:27 PM	No	55.4	66.9	57.7	44.1
11:12:27 PM	No	60.4	73.5	60.4	51.3
11:13:27 PM	No	52.3	61.4	57.4	43.3
11:14:27 PM	No	48.4	55.1	51.3	43.9
		55.3			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R6
Date: 1/17/2017

Time	Overload	Leq	Lmax	L10	L90
10:17:28 AM	No	57.9	66.4	60.7	52.2
10:18:28 AM	No	60.9	67	63.3	56.3
10:19:28 AM	No	61.2	64.5	63.4	59
10:20:28 AM	No	58	63.4	60.3	55.5
10:21:28 AM	No	59	64.2	62.7	54.9
10:22:28 AM	No	58.8	62.7	60.9	55.5
10:23:28 AM	No	59.7	63.9	62.7	56.5
10:24:28 AM	No	59.6	68.4	62.6	54.8
10:25:28 AM	No	55.3	57.6	56.7	53.2
10:26:28 AM	No	56.1	60.5	57.6	53.4
10:27:28 AM	No	55.8	58.6	57.6	53.7
10:28:28 AM	No	56.1	60.8	58.6	53
10:29:28 AM	No	57.1	62.1	58.5	54.7
10:30:28 AM	No	56.5	63.4	60.3	52.1
10:31:28 AM	No	56.1	59.9	57.9	53.5
		58.3			

Time	Overload	Leq	Lmax	L10	L90
9:58:22 PM	No	55.7	63.2	58.7	51.9
9:59:22 PM	No	58.6	64.3	61.3	53.9
10:00:22 PM	No	57.8	64.7	61.1	52.3
10:01:22 PM	No	55.1	62.4	58.1	51.3
10:02:22 PM	No	58	65.9	61.7	49.9
10:03:22 PM	No	56.1	67.7	56.7	52.2
10:04:22 PM	No	59.2	64.5	62.2	53
10:05:22 PM	No	59.4	66.8	63.5	52.8
10:06:22 PM	No	56.9	61	59.3	51
10:07:22 PM	No	56.7	62.1	59.7	52.4
10:08:22 PM	No	55.9	63.2	58.8	50.5
10:09:22 PM	No	58	65	61.7	51.2
10:10:22 PM	No	54.5	62	57.7	50.9
10:11:22 PM	No	58.3	62.2	60.9	53.3
10:12:22 PM	No	57.7	63.3	60.8	51.7
		57.4			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R7
Date: 1/17/2017

Time	Overload	Leq	Lmax	L10	L90
10:49:44 AM	No	73.4	79.2	76.1	69.1
10:50:44 AM	No	78.4	89.7	82.3	60.6
10:51:44 AM	No	72.7	83.7	73.2	67.9
10:52:44 AM	No	73.5	78.6	75.2	69.3
10:53:44 AM	No	80.8	92.3	85.2	69.5
10:54:44 AM	No	69.7	72.6	71.6	65.7
10:55:44 AM	No	71.9	74.8	73.6	69.5
10:56:44 AM	No	69.4	74.9	72.3	61.4
10:57:44 AM	No	69.2	74.5	73.2	59.1
10:58:44 AM	No	71.8	76.2	74.6	68.3
10:59:44 AM	No	68.7	74.2	73.4	61
11:00:44 AM	No	72.5	79	75.5	63.8
11:01:44 AM	No	80.6	94.4	82.4	68.6
11:02:44 AM	No	71.4	77.8	74.2	67
11:03:44 AM	No	70.5	75.9	73.1	67.3
		75			

Time	Overload	Leq	Lmax	L10	L90
10:20:41 PM	No	77.3	85.9	80.9	67.6
10:21:41 PM	No	74.3	80.4	78.6	63.6
10:22:41 PM	No	72.3	77.9	76.4	65.2
10:23:41 PM	No	72	84.3	75.7	57.5
10:24:41 PM	No	74.2	82.8	77.4	66.4
10:25:41 PM	No	75.6	87.7	78.4	65.1
10:26:41 PM	No	73.8	81.9	77.8	68.4
10:27:41 PM	No	72.4	80.6	76.9	64.8
10:28:41 PM	No	78.8	92.4	81.2	62.5
10:29:41 PM	No	72.7	82.7	77.2	62.5
10:30:41 PM	No	71.6	79	76.1	64.1
10:31:41 PM	No	72.4	83.8	75.5	61.8
10:32:41 PM	No	71.7	79.8	76.9	64.1
10:33:41 PM	No	69.8	78.3	75	63.3
10:34:41 PM	No	71.9	78.4	75.3	64.8
		74.1			

Construction Noise Calculations

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Rubber Tired Loader	1	79	40%	125	0
Air Compressor	1	78	40%	150	0
Tractor/Loader/Backhoe	1	79	40%	150	0
Excavator	1	81	40%	175	0
Water Truck/Sweeper	1	81	10%	175	0
Forklift	1	75	20%	200	0
Tractor/Loader/Backhoe	3	79	40%	200	0
Rubber Tired Loader	3	79	40%	200	0
Air Compressor	1	78	40%	200	0
Concrete Saw	3	90	20%	200	0
Water Truck/Sweeper	1	81	10%	200	0
Forklift	1	75	20%	200	0
	19				

Receptor: ***R1***

Results:

1-hour Leq: 80.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	125	0
Excavator	1	81	40%	125	0
Crane	1	81	16%	150	0
Cement and Mortar Mixers	1	80	50%	150	0
Concrete Pump	1	81	20%	175	0
Air Compressor	2	78	40%	175	0
Forklift	2	75	20%	200	0
Water Truck/Sweeper	1	81	10%	200	0
Tractor/Loader/Backhoe	3	79	40%	200	0
Rubber Tired Loader	4	79	40%	200	0
Welders	1	74	40%	200	0
Bore/Drill Rig	2	84	20%	200	0
Excavator	1	81	40%	200	0
Cement and Mortar Mixers	1	80	50%	200	0
Water Truck/Sweeper	2	81	10%	200	0
	24				

Receptor: ***R1***

Results:

1-hour Leq: 77.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	125	0
Excavator	1	81	40%	125	0
Crane	1	81	16%	150	0
Cement and Mortar Mixers	1	80	50%	150	0
Concrete Pump	1	81	20%	175	0
Air Compressor	2	78	40%	175	0
Forklift	2	75	20%	200	0
Water Truck/Sweeper	1	81	10%	200	0
Tractor/Loader/Backhoe	3	79	40%	200	0
Rubber Tired Loader	4	79	40%	200	0
Welders	1	74	40%	200	0
Bore/Drill Rig	2	84	20%	200	0
Excavator	1	81	40%	200	0
Cement and Mortar Mixers	1	80	50%	200	0
Water Truck/Sweeper	2	81	10%	200	0
	24				

Receptor: ***R1***

Results:

1-hour Leq: 77.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Gradall	1	83	40%	125	0
Crane	1	81	16%	150	0
Concrete Pump	1	81	20%	150	0
Air Compressor	1	78	40%	175	0
Forklift	1	75	20%	175	0
Plate Compactor	1	83	20%	200	0
Welders	1	74	40%	200	0
Gradall	1	83	40%	200	0
Crane	1	81	16%	200	0
Concrete Pump	2	81	20%	200	0
Air Compressor	2	78	40%	200	0
Forklift	3	75	20%	200	0
Plate Compactor	1	83	20%	200	0
Welders	2	74	40%	200	0
	20				

Receptor: ***R1***

Results:

1-hour Leq: 78.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Gradall	1	83	40%	125	0
Crane	1	81	16%	150	0
Concrete Pump	1	81	20%	150	0
Air Compressor	1	78	40%	175	0
Forklift	1	75	20%	175	0
Cement and Mortar Mixers	1	80	50%	200	0
Welders	1	74	40%	200	0
Gradall	5	83	40%	200	0
Crane	1	81	16%	200	0
Concrete Pump	1	81	20%	200	0
Air Compressor	2	78	40%	200	0
Forklift	4	75	20%	200	0
Welders	4	74	40%	200	0
Concrete Saw	1	90	20%	200	0
	26				

Receptor: ***R1***

Results:

1-hour Leq: 80.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Rubber Tired Loader	1	79	40%	125	0
Crane	1	81	16%	150	0
Water Truck/Sweeper	1	81	10%	150	0
Air Compressor	2	78	40%	175	0
Forklift	3	75	20%	175	0
Cement and Mortar Mixers	4	80	50%	200	0
Plate Compactor	4	83	20%	200	0
Grader	2	85	40%	200	0
Tractor/Loader/Backhoe	2	79	40%	200	0
Trencher	2	80	50%	200	0
Concrete Saw	1	90	20%	200	0
Rubber Tired Loader	1	79	40%	200	0
Crane	1	81	16%	200	0
Water Truck/Sweeper	1	81	10%	200	0
	27				

Receptor: ***R1***

Results:

1-hour Leq: 80.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	375	0
Rubber Tired Loader	1	79	40%	375	0
Air Compressor	1	78	40%	375	0
Tractor/Loader/Backhoe	1	79	40%	375	0
Excavator	1	81	40%	375	0
Water Truck/Sweeper	1	81	10%	375	0
Forklift	1	75	20%	375	0
Tractor/Loader/Backhoe	3	79	40%	375	0
Rubber Tired Loader	3	79	40%	375	0
Air Compressor	1	78	40%	375	0
Concrete Saw	3	90	20%	375	0
Water Truck/Sweeper	1	81	10%	375	0
Forklift	1	75	20%	375	0
	19				

Receptor: ***R2***

Results:

1-hour Leq: 73.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	415	10
Excavator	1	81	40%	415	10
Crane	1	81	16%	415	10
Cement and Mortar Mixers	1	80	50%	415	10
Concrete Pump	1	81	20%	415	10
Air Compressor	2	78	40%	415	10
Forklift	2	75	20%	415	10
Water Truck/Sweeper	1	81	10%	415	10
Tractor/Loader/Backhoe	3	79	40%	415	10
Rubber Tired Loader	4	79	40%	415	10
Welders	1	74	40%	415	10
Bore/Drill Rig	2	84	20%	415	10
Excavator	1	81	40%	415	10
Cement and Mortar Mixers	1	80	50%	415	10
Water Truck/Sweeper	2	81	10%	415	10
	24				

Receptor: ***R2***

Results:

1-hour Leq: 60.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	415	10
Excavator	1	81	40%	415	10
Crane	1	81	16%	415	10
Cement and Mortar Mixers	1	80	50%	415	10
Concrete Pump	1	81	20%	415	10
Air Compressor	2	78	40%	415	10
Forklift	2	75	20%	415	10
Water Truck/Sweeper	1	81	10%	415	10
Tractor/Loader/Backhoe	3	79	40%	415	10
Rubber Tired Loader	4	79	40%	415	10
Welders	1	74	40%	415	10
Bore/Drill Rig	2	84	20%	415	10
Excavator	1	81	40%	415	10
Cement and Mortar Mixers	1	80	50%	415	10
Water Truck/Sweeper	2	81	10%	415	10
	24				

Receptor: ***R2***

Results:

1-hour Leq: 60.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	415	10
Gradall	1	83	40%	415	10
Crane	1	81	16%	415	10
Concrete Pump	1	81	20%	415	10
Air Compressor	1	78	40%	415	10
Forklift	1	75	20%	415	10
Plate Compactor	1	83	20%	415	10
Welders	1	74	40%	415	10
Gradall	1	83	40%	415	10
Crane	1	81	16%	415	10
Concrete Pump	2	81	20%	415	10
Air Compressor	2	78	40%	415	10
Forklift	3	75	20%	415	10
Plate Compactor	1	83	20%	415	10
Welders	2	74	40%	415	10
	20				

Receptor: ***R2***

Results:

1-hour Leq: 60.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1220	10
Gradall	1	83	40%	1220	10
Crane	1	81	16%	1220	10
Concrete Pump	1	81	20%	1220	10
Air Compressor	1	78	40%	1220	10
Forklift	1	75	20%	1220	10
Cement and Mortar Mixers	1	80	50%	1220	10
Welders	1	74	40%	1220	10
Gradall	5	83	40%	1220	10
Crane	1	81	16%	1220	10
Concrete Pump	1	81	20%	1220	10
Air Compressor	2	78	40%	1220	10
Forklift	4	75	20%	1220	10
Welders	4	74	40%	1220	10
Concrete Saw	1	90	20%	1220	10
	26				

Receptor: ***R2***

Results:

1-hour Leq: 53.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	375	0
Rubber Tired Loader	1	79	40%	375	0
Crane	1	81	16%	375	0
Water Truck/Sweeper	1	81	10%	375	0
Air Compressor	2	78	40%	375	0
Forklift	3	75	20%	375	0
Cement and Mortar Mixers	4	80	50%	375	0
Plate Compactor	4	83	20%	375	0
Grader	2	85	40%	375	0
Tractor/Loader/Backhoe	2	79	40%	375	0
Trencher	2	80	50%	375	0
Concrete Saw	1	90	20%	375	0
Rubber Tired Loader	1	79	40%	375	0
Crane	1	81	16%	375	0
Water Truck/Sweeper	1	81	10%	375	0
	27				

Receptor: ***R2***

Results:

1-hour Leq: 73.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	250	3.5
Rubber Tired Loader	1	79	40%	250	3.5
Air Compressor	1	78	40%	250	3.5
Tractor/Loader/Backhoe	1	79	40%	250	3.5
Excavator	1	81	40%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
Forklift	1	75	20%	250	3.5
Tractor/Loader/Backhoe	3	79	40%	250	3.5
Rubber Tired Loader	3	79	40%	250	3.5
Air Compressor	1	78	40%	250	3.5
Concrete Saw	3	90	20%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
Forklift	1	75	20%	250	3.5
	19				

Receptor: ***R3***

Results:

1-hour Leq: 73.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	250	3.5
Excavator	1	81	40%	250	3.5
Crane	1	81	16%	250	3.5
Cement and Mortar Mixers	1	80	50%	250	3.5
Concrete Pump	1	81	20%	250	3.5
Air Compressor	2	78	40%	250	3.5
Forklift	2	75	20%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
Tractor/Loader/Backhoe	3	79	40%	250	3.5
Rubber Tired Loader	4	79	40%	250	3.5
Welders	1	74	40%	250	3.5
Bore/Drill Rig	2	84	20%	250	3.5
Excavator	1	81	40%	250	3.5
Cement and Mortar Mixers	1	80	50%	250	3.5
Water Truck/Sweeper	2	81	10%	250	3.5
	24				

Receptor: ***R3***

Results:

1-hour Leq: 71.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	250	3.5
Excavator	1	81	40%	250	3.5
Crane	1	81	16%	250	3.5
Cement and Mortar Mixers	1	80	50%	250	3.5
Concrete Pump	1	81	20%	250	3.5
Air Compressor	2	78	40%	250	3.5
Forklift	2	75	20%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
Tractor/Loader/Backhoe	3	79	40%	250	3.5
Rubber Tired Loader	4	79	40%	250	3.5
Welders	1	74	40%	250	3.5
Bore/Drill Rig	2	84	20%	250	3.5
Excavator	1	81	40%	250	3.5
Cement and Mortar Mixers	1	80	50%	250	3.5
Water Truck/Sweeper	2	81	10%	250	3.5
	24				

Receptor: ***R3***

Results:

1-hour Leq: 71.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	250	3.5
Gradall	1	83	40%	250	3.5
Crane	1	81	16%	250	3.5
Concrete Pump	1	81	20%	250	3.5
Air Compressor	1	78	40%	250	3.5
Forklift	1	75	20%	250	3.5
Plate Compactor	1	83	20%	250	3.5
Welders	1	74	40%	250	3.5
Gradall	1	83	40%	250	3.5
Crane	1	81	16%	250	3.5
Concrete Pump	2	81	20%	250	3.5
Air Compressor	2	78	40%	250	3.5
Forklift	3	75	20%	250	3.5
Plate Compactor	1	83	20%	250	3.5
Welders	2	74	40%	250	3.5
	20				

Receptor: ***R3***

Results:

1-hour Leq: 70.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	250	3.5
Gradall	1	83	40%	250	3.5
Crane	1	81	16%	250	3.5
Concrete Pump	1	81	20%	250	3.5
Air Compressor	1	78	40%	250	3.5
Forklift	1	75	20%	250	3.5
Cement and Mortar Mixers	1	80	50%	250	3.5
Welders	1	74	40%	250	3.5
Gradall	5	83	40%	250	3.5
Crane	1	81	16%	250	3.5
Concrete Pump	1	81	20%	250	3.5
Air Compressor	2	78	40%	250	3.5
Forklift	4	75	20%	250	3.5
Welders	4	74	40%	250	3.5
Concrete Saw	1	90	20%	250	3.5
	26				

Receptor: ***R3***

Results:

1-hour Leq: 73.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	250	3.5
Rubber Tired Loader	1	79	40%	250	3.5
Crane	1	81	16%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
Air Compressor	2	78	40%	250	3.5
Forklift	3	75	20%	250	3.5
Cement and Mortar Mixers	4	80	50%	250	3.5
Plate Compactor	4	83	20%	250	3.5
Grader	2	85	40%	250	3.5
Tractor/Loader/Backhoe	2	79	40%	250	3.5
Trencher	2	80	50%	250	3.5
Concrete Saw	1	90	20%	250	3.5
Rubber Tired Loader	1	79	40%	250	3.5
Crane	1	81	16%	250	3.5
Water Truck/Sweeper	1	81	10%	250	3.5
	27				

Receptor: ***R3***

Results:

1-hour Leq: 73.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1785	7.8
Rubber Tired Loader	1	79	40%	1785	7.8
Air Compressor	1	78	40%	1785	7.8
Tractor/Loader/Backhoe	1	79	40%	1785	7.8
Excavator	1	81	40%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
Forklift	1	75	20%	1785	7.8
Tractor/Loader/Backhoe	3	79	40%	1785	7.8
Rubber Tired Loader	3	79	40%	1785	7.8
Air Compressor	1	78	40%	1785	7.8
Concrete Saw	3	90	20%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
Forklift	1	75	20%	1785	7.8
	19				

Receptor: ***R4***

Results:

1-hour Leq: 51.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	1785	7.8
Excavator	1	81	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Cement and Mortar Mixers	1	80	50%	1785	7.8
Concrete Pump	1	81	20%	1785	7.8
Air Compressor	2	78	40%	1785	7.8
Forklift	2	75	20%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
Tractor/Loader/Backhoe	3	79	40%	1785	7.8
Rubber Tired Loader	4	79	40%	1785	7.8
Welders	1	74	40%	1785	7.8
Bore/Drill Rig	2	84	20%	1785	7.8
Excavator	1	81	40%	1785	7.8
Cement and Mortar Mixers	1	80	50%	1785	7.8
Water Truck/Sweeper	2	81	10%	1785	7.8
	24				

Receptor: ***R4***

Results:

1-hour Leq: 49.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	1785	7.8
Excavator	1	81	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Cement and Mortar Mixers	1	80	50%	1785	7.8
Concrete Pump	1	81	20%	1785	7.8
Air Compressor	2	78	40%	1785	7.8
Forklift	2	75	20%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
Tractor/Loader/Backhoe	3	79	40%	1785	7.8
Rubber Tired Loader	4	79	40%	1785	7.8
Welders	1	74	40%	1785	7.8
Bore/Drill Rig	2	84	20%	1785	7.8
Excavator	1	81	40%	1785	7.8
Cement and Mortar Mixers	1	80	50%	1785	7.8
Water Truck/Sweeper	2	81	10%	1785	7.8
	24				

Receptor: ***R4***

Results:

1-hour Leq: 49.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1785	7.8
Gradall	1	83	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Concrete Pump	1	81	20%	1785	7.8
Air Compressor	1	78	40%	1785	7.8
Forklift	1	75	20%	1785	7.8
Plate Compactor	1	83	20%	1785	7.8
Welders	1	74	40%	1785	7.8
Gradall	1	83	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Concrete Pump	2	81	20%	1785	7.8
Air Compressor	2	78	40%	1785	7.8
Forklift	3	75	20%	1785	7.8
Plate Compactor	1	83	20%	1785	7.8
Welders	2	74	40%	1785	7.8
	20				

Receptor: ***R4***

Results:

1-hour Leq: 49.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1785	7.8
Gradall	1	83	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Concrete Pump	1	81	20%	1785	7.8
Air Compressor	1	78	40%	1785	7.8
Forklift	1	75	20%	1785	7.8
Cement and Mortar Mixers	1	80	50%	1785	7.8
Welders	1	74	40%	1785	7.8
Gradall	5	83	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Concrete Pump	1	81	20%	1785	7.8
Air Compressor	2	78	40%	1785	7.8
Forklift	4	75	20%	1785	7.8
Welders	4	74	40%	1785	7.8
Concrete Saw	1	90	20%	1785	7.8
	26				

Receptor: ***R4***

Results:

1-hour Leq: 51.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1785	7.8
Rubber Tired Loader	1	79	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
Air Compressor	2	78	40%	1785	7.8
Forklift	3	75	20%	1785	7.8
Cement and Mortar Mixers	4	80	50%	1785	7.8
Plate Compactor	4	83	20%	1785	7.8
Grader	2	85	40%	1785	7.8
Tractor/Loader/Backhoe	2	79	40%	1785	7.8
Trencher	2	80	50%	1785	7.8
Concrete Saw	1	90	20%	1785	7.8
Rubber Tired Loader	1	79	40%	1785	7.8
Crane	1	81	16%	1785	7.8
Water Truck/Sweeper	1	81	10%	1785	7.8
	27				

Receptor: ***R4***

Results:

1-hour Leq: 52.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Air Compressor	1	78	40%	260	5
Tractor/Loader/Backhoe	1	79	40%	260	5
Excavator	1	81	40%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Forklift	1	75	20%	260	5
Tractor/Loader/Backhoe	3	79	40%	260	5
Rubber Tired Loader	3	79	40%	260	5
Air Compressor	1	78	40%	260	5
Concrete Saw	3	90	20%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Forklift	1	75	20%	260	5
	19				

Receptor: ***R5***

Results:

1-hour Leq: 71.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	260	5
Excavator	1	81	40%	260	5
Crane	1	81	16%	260	5
Cement and Mortar Mixers	1	80	50%	260	5
Concrete Pump	1	81	20%	260	5
Air Compressor	2	78	40%	260	5
Forklift	2	75	20%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Tractor/Loader/Backhoe	3	79	40%	260	5
Rubber Tired Loader	4	79	40%	260	5
Welders	1	74	40%	260	5
Bore/Drill Rig	2	84	20%	260	5
Excavator	1	81	40%	260	5
Cement and Mortar Mixers	1	80	50%	260	5
Water Truck/Sweeper	2	81	10%	260	5
	24				

Receptor: ***R5***

Results:

1-hour Leq: 69.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	260	5
Excavator	1	81	40%	260	5
Crane	1	81	16%	260	5
Cement and Mortar Mixers	1	80	50%	260	5
Concrete Pump	1	81	20%	260	5
Air Compressor	2	78	40%	260	5
Forklift	2	75	20%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Tractor/Loader/Backhoe	3	79	40%	260	5
Rubber Tired Loader	4	79	40%	260	5
Welders	1	74	40%	260	5
Bore/Drill Rig	2	84	20%	260	5
Excavator	1	81	40%	260	5
Cement and Mortar Mixers	1	80	50%	260	5
Water Truck/Sweeper	2	81	10%	260	5
	24				

Receptor: ***R5***

Results:

1-hour Leq: 69.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	5
Gradall	1	83	40%	260	5
Crane	1	81	16%	260	5
Concrete Pump	1	81	20%	260	5
Air Compressor	1	78	40%	260	5
Forklift	1	75	20%	260	5
Plate Compactor	1	83	20%	260	5
Welders	1	74	40%	260	5
Gradall	1	83	40%	260	5
Crane	1	81	16%	260	5
Concrete Pump	2	81	20%	260	5
Air Compressor	2	78	40%	260	5
Forklift	3	75	20%	260	5
Plate Compactor	1	83	20%	260	5
Welders	2	74	40%	260	5
	20				

Receptor: ***R5***

Results:

1-hour Leq: 69.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	420	10
Gradall	1	83	40%	420	10
Crane	1	81	16%	420	10
Concrete Pump	1	81	20%	420	10
Air Compressor	1	78	40%	420	10
Forklift	1	75	20%	420	10
Cement and Mortar Mixers	1	80	50%	420	10
Welders	1	74	40%	420	10
Gradall	5	83	40%	420	10
Crane	1	81	16%	420	10
Concrete Pump	1	81	20%	420	10
Air Compressor	2	78	40%	420	10
Forklift	4	75	20%	420	10
Welders	4	74	40%	420	10
Concrete Saw	1	90	20%	420	10
	26				

Receptor: ***R5***

Results:

1-hour Leq: 62.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Crane	1	81	16%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Air Compressor	2	78	40%	260	5
Forklift	3	75	20%	260	5
Cement and Mortar Mixers	4	80	50%	260	5
Plate Compactor	4	83	20%	260	5
Grader	2	85	40%	260	5
Tractor/Loader/Backhoe	2	79	40%	260	5
Trencher	2	80	50%	260	5
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Crane	1	81	16%	260	5
Water Truck/Sweeper	1	81	10%	260	5
	27				

Receptor: ***R5***

Results:

1-hour Leq: 72.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Air Compressor	1	78	40%	260	5
Tractor/Loader/Backhoe	1	79	40%	260	5
Excavator	1	81	40%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Forklift	1	75	20%	260	5
Tractor/Loader/Backhoe	3	79	40%	260	5
Rubber Tired Loader	3	79	40%	260	5
Air Compressor	1	78	40%	260	5
Concrete Saw	3	90	20%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Forklift	1	75	20%	260	5
	19				

Receptor: ***R6***

Results:

1-hour Leq: 71.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	260	10
Excavator	1	81	40%	260	10
Crane	1	81	16%	260	10
Cement and Mortar Mixers	1	80	50%	260	10
Concrete Pump	1	81	20%	260	10
Air Compressor	2	78	40%	260	10
Forklift	2	75	20%	260	10
Water Truck/Sweeper	1	81	10%	260	10
Tractor/Loader/Backhoe	3	79	40%	260	10
Rubber Tired Loader	4	79	40%	260	10
Welders	1	74	40%	260	10
Bore/Drill Rig	2	84	20%	260	10
Excavator	1	81	40%	260	10
Cement and Mortar Mixers	1	80	50%	260	10
Water Truck/Sweeper	2	81	10%	260	10
	24				

Receptor: *R6*

Results:

1-hour Leq: 64.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	260	10
Excavator	1	81	40%	260	10
Crane	1	81	16%	260	10
Cement and Mortar Mixers	1	80	50%	260	10
Concrete Pump	1	81	20%	260	10
Air Compressor	2	78	40%	260	10
Forklift	2	75	20%	260	10
Water Truck/Sweeper	1	81	10%	260	10
Tractor/Loader/Backhoe	3	79	40%	260	10
Rubber Tired Loader	4	79	40%	260	10
Welders	1	74	40%	260	10
Bore/Drill Rig	2	84	20%	260	10
Excavator	1	81	40%	260	10
Cement and Mortar Mixers	1	80	50%	260	10
Water Truck/Sweeper	2	81	10%	260	10
	24				

Receptor: ***R6***

Results:

1-hour Leq: 64.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	10
Gradall	1	83	40%	260	10
Crane	1	81	16%	260	10
Concrete Pump	1	81	20%	260	10
Air Compressor	1	78	40%	260	10
Forklift	1	75	20%	260	10
Plate Compactor	1	83	20%	260	10
Welders	1	74	40%	260	10
Gradall	1	83	40%	260	10
Crane	1	81	16%	260	10
Concrete Pump	2	81	20%	260	10
Air Compressor	2	78	40%	260	10
Forklift	3	75	20%	260	10
Plate Compactor	1	83	20%	260	10
Welders	2	74	40%	260	10
	20				

Receptor: ***R6***

Results:

1-hour Leq: 64.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	975	10
Gradall	1	83	40%	975	10
Crane	1	81	16%	975	10
Concrete Pump	1	81	20%	975	10
Air Compressor	1	78	40%	975	10
Forklift	1	75	20%	975	10
Cement and Mortar Mixers	1	80	50%	975	10
Welders	1	74	40%	975	10
Gradall	5	83	40%	975	10
Crane	1	81	16%	975	10
Concrete Pump	1	81	20%	975	10
Air Compressor	2	78	40%	975	10
Forklift	4	75	20%	975	10
Welders	4	74	40%	975	10
Concrete Saw	1	90	20%	975	10
	26				

Receptor: ***R6***

Results:

1-hour Leq: 54.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Crane	1	81	16%	260	5
Water Truck/Sweeper	1	81	10%	260	5
Air Compressor	2	78	40%	260	5
Forklift	3	75	20%	260	5
Cement and Mortar Mixers	4	80	50%	260	5
Plate Compactor	4	83	20%	260	5
Grader	2	85	40%	260	5
Tractor/Loader/Backhoe	2	79	40%	260	5
Trencher	2	80	50%	260	5
Concrete Saw	1	90	20%	260	5
Rubber Tired Loader	1	79	40%	260	5
Crane	1	81	16%	260	5
Water Truck/Sweeper	1	81	10%	260	5
	27				

Receptor: ***R6***

Results:

1-hour Leq: 72.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	100	0
Rubber Tired Loader	1	79	40%	100	0
Air Compressor	1	78	40%	125	0
Tractor/Loader/Backhoe	1	79	40%	125	0
Excavator	1	81	40%	150	0
Water Truck/Sweeper	1	81	10%	150	0
Forklift	1	75	20%	175	0
Tractor/Loader/Backhoe	3	79	40%	175	0
Rubber Tired Loader	3	79	40%	200	0
Air Compressor	1	78	40%	200	0
Concrete Saw	3	90	20%	200	0
Water Truck/Sweeper	1	81	10%	200	0
Forklift	1	75	20%	200	0
	19				

Receptor: ***R7***

Results:

1-hour Leq: 81.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Excavation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	530	0
Excavator	1	81	40%	530	0
Crane	1	81	16%	530	0
Cement and Mortar Mixers	1	80	50%	530	0
Concrete Pump	1	81	20%	530	0
Air Compressor	2	78	40%	530	0
Forklift	2	75	20%	530	0
Water Truck/Sweeper	1	81	10%	530	0
Tractor/Loader/Backhoe	3	79	40%	530	0
Rubber Tired Loader	4	79	40%	530	0
Welders	1	74	40%	530	0
Bore/Drill Rig	2	84	20%	530	0
Excavator	1	81	40%	530	0
Cement and Mortar Mixers	1	80	50%	530	0
Water Truck/Sweeper	2	81	10%	530	0
	24				

Receptor: ***R7***

Results:

1-hour Leq: 68.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Grading / Foundation Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	530	0
Excavator	1	81	40%	530	0
Crane	1	81	16%	530	0
Cement and Mortar Mixers	1	80	50%	530	0
Concrete Pump	1	81	20%	530	0
Air Compressor	2	78	40%	530	0
Forklift	2	75	20%	530	0
Water Truck/Sweeper	1	81	10%	530	0
Tractor/Loader/Backhoe	3	79	40%	530	0
Rubber Tired Loader	4	79	40%	530	0
Welders	1	74	40%	530	0
Bore/Drill Rig	2	84	20%	530	0
Excavator	1	81	40%	530	0
Cement and Mortar Mixers	1	80	50%	530	0
Water Truck/Sweeper	2	81	10%	530	0
	24				

Receptor: ***R7***

Results:

1-hour Leq: 68.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: ***Foundation / Building Construction Overlap***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	530	0
Gradall	1	83	40%	530	0
Crane	1	81	16%	530	0
Concrete Pump	1	81	20%	530	0
Air Compressor	1	78	40%	530	0
Forklift	1	75	20%	530	0
Plate Compactor	1	83	20%	530	0
Welders	1	74	40%	530	0
Gradall	1	83	40%	530	0
Crane	1	81	16%	530	0
Concrete Pump	2	81	20%	530	0
Air Compressor	2	78	40%	530	0
Forklift	3	75	20%	530	0
Plate Compactor	1	83	20%	530	0
Welders	2	74	40%	530	0
	20				

Receptor: ***R7***

Results:

1-hour Leq: 67.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1450	0
Gradall	1	83	40%	1450	0
Crane	1	81	16%	1475	0
Concrete Pump	1	81	20%	1475	0
Air Compressor	1	78	40%	1500	0
Forklift	1	75	20%	1500	0
Cement and Mortar Mixers	1	80	50%	1525	0
Welders	1	74	40%	1525	0
Gradall	5	83	40%	1550	0
Crane	1	81	16%	1550	0
Concrete Pump	1	81	20%	1550	0
Air Compressor	2	78	40%	1550	0
Forklift	4	75	20%	1550	0
Welders	4	74	40%	1550	0
Concrete Saw	1	90	20%	1550	0
	26				

Receptor: ***R7***

Results:

1-hour Leq: 61.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: LMNA

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	530	0
Rubber Tired Loader	1	79	40%	530	0
Crane	1	81	16%	530	0
Water Truck/Sweeper	1	81	10%	530	0
Air Compressor	2	78	40%	530	0
Forklift	3	75	20%	530	0
Cement and Mortar Mixers	4	80	50%	530	0
Plate Compactor	4	83	20%	530	0
Grader	2	85	40%	530	0
Tractor/Loader/Backhoe	2	79	40%	530	0
Trencher	2	80	50%	530	0
Concrete Saw	1	90	20%	530	0
Rubber Tired Loader	1	79	40%	530	0
Crane	1	81	16%	530	0
Water Truck/Sweeper	1	81	10%	530	0
	27				

Receptor: ***R7***

Results:

1-hour Leq: 70.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Operation Noise Calculations

AES
Acoustical Engineering Services

Off-Site Traffic Noise Calculations
Project: LMNA Project

WEEKDAY	Distance to CL	Future No Project	Future + Project	Project Increase	Existing	Future + Project	Cumulative Increase
Normandie Avenue							
- North of Exposition Blvd.	40	72.4	72.5	0.1	72.2	72.5	0.3
- Between Exposition Blvd. and MLK Jr. Blvd.	40	72.3	72.3	0.0	72.1	72.3	0.2
- South of MLK Jr. Blvd.	40	72.2	72.2	0.0	72.0	72.2	0.2
Vermont Avenue							
- North of Exposition Blvd.	45	72.4	72.4	0.0	71.9	72.4	0.5
- Between Exposition Blvd. and 39th St.	35	72.9	72.8	-0.1	72.6	72.8	0.2
- Between 39th St. and MLK Jr. Blvd.	35	72.7	72.7	0.0	72.4	72.7	0.3
- South of MLK Jr. Blvd.	35	72.2	72.2	0.0	71.9	72.2	0.3
Figueroa Street							
- North of Exposition Blvd.	45	73.4	73.4	0.0	72.8	73.4	0.6
- Between Exposition Blvd. and 39th St.	45	73.0	73.1	0.1	72.3	73.1	0.8
- Between 39th St. and MLK Jr. Blvd.	45	73.2	73.2	0.0	72.4	73.2	0.8
- South of MLK Jr. Blvd.	40	73.2	73.2	0.0	72.5	73.2	0.7
Jefferson Boulevard							
- West of Vermont Ave.	40	72.1	72.1	0.0	71.8	72.1	0.3
- Between Vermont Ave. and Figueroa St.	45	72.6	72.6	0.0	72.4	72.6	0.2
- East of Figueroa St.	40	72.5	72.5	0.0	72.2	72.5	0.3
Exposition Boulevard							
- West of Vermont Ave.	60	70.3	70.5	0.2	69.8	70.5	0.7
- Between Vermont Ave. and Figueroa St.	60	71.0	71.2	0.2	70.5	71.2	0.7
- East of Figueroa St.	60	69.8	70.0	0.2	69.4	70.0	0.6
Martin Luther King Jr. Boulevard							
- West of Vermont Ave.	50	72.9	73.0	0.1	72.6	73.0	0.4
- Between Vermont Ave. and Hoover St.	45	73.9	73.9	0.0	73.5	73.9	0.4
- Between Hoover St. and Figueroa St.	45	73.5	73.6	0.1	73.1	73.6	0.5
- East of Figueroa	45	73.5	73.6	0.1	73.0	73.6	0.6

WEEKEND	Distance to CL	Future No Project	Future + Project	Project Increase	Existing	Future + Project	Cumulative Increase
Normandie Avenue							
- North of Exposition Blvd.	40	72.5	72.5	0.0	72.3	72.5	0.2
- Between Exposition Blvd. and MLK Jr. Blvd.	40	72.1	72.1	0.0	71.9	72.1	0.2
- South of MLK Jr. Blvd.	40	71.8	71.8	0.0	71.6	71.8	0.2
Vermont Avenue							
- North of Exposition Blvd.	45	72.1	72.2	0.1	71.6	72.2	0.6
- Between Exposition Blvd. and 39th St.	35	72.7	72.4	-0.3	72.4	72.4	0.0
- Between 39th St. and MLK Jr. Blvd.	35	72.3	72.2	-0.1	72	72.2	0.2
- South of MLK Jr. Blvd.	35	71.4	71.5	0.1	71.1	71.5	0.4
Figueroa Street							
- North of Exposition Blvd.	45	72.1	72.1	0.0	71.4	72.1	0.7
- Between Exposition Blvd. and 39th St.	45	72	72.1	0.1	71.3	72.1	0.8
- Between 39th St. and MLK Jr. Blvd.	45	72.3	72.4	0.1	71.5	72.4	0.9
- South of MLK Jr. Blvd.	40	71.9	71.9	0.0	71.2	71.9	0.7
Jefferson Boulevard							
- West of Vermont Ave.	40	70.2	70.2	0.0	69.9	70.2	0.3
- Between Vermont Ave. and Figueroa St.	45	69.9	69.9	0.0	69.6	69.9	0.3
- East of Figueroa St.	40	70	70	0.0	69.6	70	0.4
Exposition Boulevard							
- West of Vermont Ave.	60	68.6	68.8	0.2	68	68.8	0.8
- Between Vermont Ave. and Figueroa St.	60	69.4	69.9	0.5	68.8	69.9	1.1
- East of Figueroa St.	60	68.4	68.9	0.5	68	68.9	0.9
Martin Luther King Jr. Boulevard							
- West of Vermont Ave.	50	72.3	72.3	0.0	72	72.3	0.3
- Between Vermont Ave. and Hoover St.	45	73.3	73.4	0.1	73	73.4	0.4
- Between Hoover St. and Figueroa St.	45	73.5	73.6	0.1	73.1	73.6	0.5
- East of Figueroa	45	73.5	73.6	0.1	73.1	73.6	0.5

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Off-Site Traffic Noise Calculations
Project: LMNA Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Normandie Avenue										
- North of Exposition Blvd.	60	10	40	35	2,176	21,760	10%	0	0	72.2
- Between Exposition Blvd. and MLK Jr. Blvd.	60	10	40	35	2,119	21,190	10%	0	0	72.1
- South of MLK Jr. Blvd.	60	10	40	35	2,079	20,790	10%	0	0	72.0
Vermont Avenue										
- North of Exposition Blvd.	70	10	45	35	2,259	22,590	10%	0	0	71.9
- Between Exposition Blvd. and 39th St.	50	10	35	35	2,040	20,400	10%	0	0	72.6
- Between 39th St. and MLK Jr. Blvd.	50	10	35	35	1,966	19,660	10%	0	0	72.4
- South of MLK Jr. Blvd.	50	10	35	35	1,762	17,620	10%	0	0	71.9
Figueroa Street										
- North of Exposition Blvd.	70	10	45	35	2,759	27,590	10%	0	0	72.8
- Between Exposition Blvd. and 39th St.	70	10	45	35	2,473	24,730	10%	0	0	72.3
- Between 39th St. and MLK Jr. Blvd.	70	10	45	35	2,527	25,270	10%	0	0	72.4
- South of MLK Jr. Blvd.	60	10	40	35	2,309	23,090	10%	0	0	72.5
Jefferson Boulevard										
- West of Vermont Ave.	60	10	40	35	1,977	19,770	10%	0	0	71.8
- Between Vermont Ave. and Figueroa St.	70	10	45	35	2,511	25,110	10%	0	0	72.4
- East of Figueroa St.	60	10	40	35	2,150	21,500	10%	0	0	72.2
Exposition Boulevard										
- West of Vermont Ave.	100	10	60	35	1,880	18,800	10%	0	0	69.8
- Between Vermont Ave. and Figueroa St.	100	10	60	35	2,199	21,990	10%	0	0	70.5
- East of Figueroa St.	100	10	60	35	1,704	17,040	10%	0	0	69.4
Martin Luther King Jr. Boulevard										
- West of Vermont Ave.	80	10	50	35	3,000	30,000	10%	0	0	72.6
- Between Vermont Ave. and Hoover St.	70	10	45	35	3,297	32,970	10%	0	0	73.5
- Between Hoover St. and Figueroa St.	70	10	45	35	2,999	29,990	10%	0	0	73.1
- East of Figueroa	70	10	45	35	2,906	29,060	10%	0	0	73.0

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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Off-Site Traffic Noise Calculations
Project: LMNA Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Normandie Avenue										
- North of Exposition Blvd.	60	10	40	35	2,286	22,860	10%	0	0	72.4
- Between Exposition Blvd. and MLK Jr. Blvd.	60	10	40	35	2,213	22,130	10%	0	0	72.3
- South of MLK Jr. Blvd.	60	10	40	35	2,172	21,720	10%	0	0	72.2
Vermont Avenue										
- North of Exposition Blvd.	70	10	45	35	2,540	25,400	10%	0	0	72.4
- Between Exposition Blvd. and 39th St.	50	10	35	35	2,202	22,020	10%	0	0	72.9
- Between 39th St. and MLK Jr. Blvd.	50	10	35	35	2,119	21,190	10%	0	0	72.7
- South of MLK Jr. Blvd.	50	10	35	35	1,877	18,770	10%	0	0	72.2
Figueroa Street										
- North of Exposition Blvd.	70	10	45	35	3,194	31,940	10%	0	0	73.4
- Between Exposition Blvd. and 39th St.	70	10	45	35	2,940	29,400	10%	0	0	73.0
- Between 39th St. and MLK Jr. Blvd.	70	10	45	35	3,059	30,590	10%	0	0	73.2
- South of MLK Jr. Blvd.	60	10	40	35	2,737	27,370	10%	0	0	73.2
Jefferson Boulevard										
- West of Vermont Ave.	60	10	40	35	2,132	21,320	10%	0	0	72.1
- Between Vermont Ave. and Figueroa St.	70	10	45	35	2,667	26,670	10%	0	0	72.6
- East of Figueroa St.	60	10	40	35	2,299	22,990	10%	0	0	72.5
Exposition Boulevard										
- West of Vermont Ave.	100	10	60	35	2,131	21,310	10%	0	0	70.3
- Between Vermont Ave. and Figueroa St.	100	10	60	35	2,484	24,840	10%	0	0	71.0
- East of Figueroa St.	100	10	60	35	1,890	18,900	10%	0	0	69.8
Martin Luther King Jr. Boulevard										
- West of Vermont Ave.	80	10	50	35	3,226	32,260	10%	0	0	72.9
- Between Vermont Ave. and Hoover St.	70	10	45	35	3,550	35,500	10%	0	0	73.9
- Between Hoover St. and Figueroa St.	70	10	45	35	3,285	32,850	10%	0	0	73.5
- East of Figueroa	70	10	45	35	3,291	32,910	10%	0	0	73.5

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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Off-Site Traffic Noise Calculations
Project: LMNA Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Normandie Avenue										
- North of Exposition Blvd.	60	10	40	35	2,298	22,980	10%	0	0	72.5
- Between Exposition Blvd. and MLK Jr. Blvd.	60	10	40	35	2,213	22,130	10%	0	0	72.3
- South of MLK Jr. Blvd.	60	10	40	35	2,172	21,720	10%	0	0	72.2
Vermont Avenue										
- North of Exposition Blvd.	70	10	45	35	2,564	25,640	10%	0	0	72.4
- Between Exposition Blvd. and 39th St.	50	10	35	35	2,159	21,590	10%	0	0	72.8
- Between 39th St. and MLK Jr. Blvd.	50	10	35	35	2,106	21,060	10%	0	0	72.7
- South of MLK Jr. Blvd.	50	10	35	35	1,889	18,890	10%	0	0	72.2
Figueroa Street										
- North of Exposition Blvd.	70	10	45	35	3,199	31,990	10%	0	0	73.4
- Between Exposition Blvd. and 39th St.	70	10	45	35	2,967	29,670	10%	0	0	73.1
- Between 39th St. and MLK Jr. Blvd.	70	10	45	35	3,074	30,740	10%	0	0	73.2
- South of MLK Jr. Blvd.	60	10	40	35	2,737	27,370	10%	0	0	73.2
Jefferson Boulevard										
- West of Vermont Ave.	60	10	40	35	2,132	21,320	10%	0	0	72.1
- Between Vermont Ave. and Figueroa St.	70	10	45	35	2,667	26,670	10%	0	0	72.6
- East of Figueroa St.	60	10	40	35	2,299	22,990	10%	0	0	72.5
Exposition Boulevard										
- West of Vermont Ave.	100	10	60	35	2,186	21,860	10%	0	0	70.5
- Between Vermont Ave. and Figueroa St.	100	10	60	35	2,605	26,050	10%	0	0	71.2
- East of Figueroa St.	100	10	60	35	1,987	19,870	10%	0	0	70.0
Martin Luther King Jr. Boulevard										
- West of Vermont Ave.	80	10	50	35	3,256	32,560	10%	0	0	73.0
- Between Vermont Ave. and Hoover St.	70	10	45	35	3,601	36,010	10%	0	0	73.9
- Between Hoover St. and Figueroa St.	70	10	45	35	3,332	33,320	10%	0	0	73.6
- East of Figueroa	70	10	45	35	3,323	33,230	10%	0	0	73.6

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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Soccer (Existing Location) Noise Calculations

Project: Lucas Museum of Narrative Arts

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations: Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)	
Receptor	Leq	CNEL	6	3	0	
R1	57.0	55.1	54.0	57.0	0.0	49.0
R2	54.6	52.7	51.6	54.6	0.0	46.6
R3	51.5	49.6	48.5	51.5	0.0	43.5
R4	37.5	35.6	34.5	37.5	0.0	29.5
R5	50.4	48.5	47.4	50.4	0.0	42.4
R6	55.3	53.4	52.3	55.3	0.0	47.3
R7	59.3	57.4	56.3	59.3	0.0	51.3

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	nighttime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R1	71.0	71.1	0.1	65.6	66.2	0.6
R2	58.6	59.6	1.0	51.8	56.4	4.6
R3	60.0	60.4	0.4	55.2	56.7	1.5
R4	56.3	56.3	0.0	50.9	51.1	0.2
R5	62.6	62.8	0.2	55.3	56.5	1.2
R6	62.3	62.8	0.5	57.4	59.5	2.1
R7	79.0	79.0	0.0	74.1	74.2	0.1

Measured soccer Noise 64 dBA Leq at 250 feet

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Soccer (Future Location) Noise Calculations

Project: Lucas Museum of Narrative Arts

			Hours of Operations			
	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)	
Receptor	Leq	CNEL	6	3	0	
R1	53.8	51.9	50.8	53.8	0.0	45.8
R2	62.3	60.4	59.3	62.3	0.0	54.3
R3	48.8	46.9	45.8	48.8	0.0	40.8
R4	34.5	32.6	31.5	34.5	0.0	26.5
R5	44.8	42.9	41.8	44.8	0.0	36.8
R6	61.3	59.4	58.3	61.3	0.0	53.3
R7	66.7	64.8	63.7	66.7	0.0	58.7

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	nighttime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R1	71.0	71.1	0.1	65.6	65.9	0.3
R2	58.6	62.6	4.0	51.8	62.7	10.9
R3	60.0	60.2	0.2	55.2	56.1	0.9
R4	56.3	56.3	0.0	50.9	51.0	0.1
R5	62.6	62.6	0.0	55.3	55.7	0.4
R6	62.3	64.1	1.8	57.4	62.8	5.4
R7	79.0	79.2	0.2	74.1	74.8	0.7

Measured soccer Noise 64 dBA Leq at 250 feet

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Outdoor Noise Calculations

Project: Lucas Museum of Narrative Arts

GROUND LEVEL

	Estimated noise levels, Leq (FROM SOUNDPLAN)				Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Sound System	Occupants	Total, Leq	CNEL	9	**3**	**0**
R1		51.9	51.9	50.8	50.7	51.9	0.0
R2		34.2	34.2	33.1	33.0	34.2	0.0
R3		51.9	51.9	50.8	50.7	51.9	0.0
R4		34.0	34.0	32.9	32.8	34.0	0.0
R5		47.9	47.9	46.8	46.7	47.9	0.0
R6		27.3	27.3	26.2	26.1	27.3	0.0
R7		41.5	41.5	40.4	40.3	41.5	0.0

LEVEL 5

	Estimated noise levels, Leq (FROM SOUNDPLAN)				Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Sound System	Occupants	Total, Leq	CNEL	9	**3**	**0**
R1	45.2	40.6	46.5	45.4	45.2	46.5	0.0
R2	29.0	31.0	33.1	32.0	31.9	33.1	0.0
R3	45.5	43.8	47.7	46.6	46.5	47.7	0.0
R4	28.9	31.4	33.3	32.2	32.1	33.3	0.0
R5	40.9	24.3	41.0	39.9	39.7	41.0	0.0
R6	21.1	20.7	23.9	22.9	22.7	23.9	0.0
R7	34.8	30.8	36.3	35.1	35.0	36.3	0.0

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	daytime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)	Significance threshold (Leq)
R1	51.9	71.0	71.1	0.1	53.0	68.6	68.7	0.1	73.6
R2	35.6	58.6	58.6	0.0	36.7	58.1	58.1	0.0	63.1
R3	52.2	60.0	60.7	0.7	53.3	56.0	57.9	1.9	61.0
R4	35.6	56.3	56.3	0.0	36.7	53.7	53.8	0.1	58.7
R5	47.6	62.6	62.7	0.1	48.7	62.6	62.8	0.2	67.6
R6	27.9	62.3	62.3	0.0	28.9	58.3	58.3	0.0	63.3
R7	41.5	79.0	79.0	0.0	42.6	75.0	75.0	0.0	80.0

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Loading and Trash Compactor Noise Calculations

Project: Lucas Museum of Narrative Arts

LOADING

	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	0
R1	28.5	25.7	22.5	28.5	0.0
R2	16.6	14.4	10.6	16.6	0.0
R3	52.7	49.9	46.7	52.7	0.0
R4	34.7	31.9	28.7	34.7	0.0
R5	26.2	23.4	20.2	26.2	0.0
R6	17.9	15.5	11.9	17.9	0.0
R7	11.9	10.7	5.9	11.9	0.0

TRASH COMPACTOR

	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	0
R1	24.9	22.2	18.9	24.9	0.0
R2	19.9	17.4	13.9	19.9	0.0
R3	30.8	28.0	24.8	30.8	0.0
R4	21.2	18.6	15.2	21.2	0.0
R5	11.6	10.5	5.6	11.6	0.0
R6	7.1	8.1	1.1	7.1	0.0
R7	7.8	8.4	1.8	7.8	0.0

TOTAL COMBINED

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	daytime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)	Significance threshold (Leq)
R1	27.3	71.0	71.0	0.0	30.1	68.6	68.6	0.0	73.6
R2	19.1	58.6	58.6	0.0	21.6	58.1	58.1	0.0	63.1
R3	49.9	60.0	60.4	0.4	52.7	56.0	57.7	1.7	61.0
R4	32.1	56.3	56.3	0.0	34.9	53.7	53.8	0.1	58.7
R5	23.7	62.6	62.6	0.0	26.3	62.6	62.6	0.0	67.6
R6	16.3	62.3	62.3	0.0	18.2	58.3	58.3	0.0	63.3
R7	12.7	79.0	79.0	0.0	13.3	75.0	75.0	0.0	80.0

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Special Event Noise Calculations

Project: Lucas Museum of Narrative Arts

SPECIAL EVENT

	Estimated noise levels, Leq (FROM SOUNDPLAN)				Hours of Operations: Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Sound System	Occupants	Total, Leq	CNEL	3	**3**	**0**
R1	63.3	25.1	63.3	60.5	57.3	63.3	0.0
R2	43.4	32.4	43.7	40.9	37.7	43.7	0.0
R3	58.1	48.7	58.6	55.7	52.6	58.6	0.0
R4	31.6	38.5	39.3	36.5	33.3	39.3	0.0
R5	40.7	15.2	40.7	37.9	34.7	40.7	0.0
R6	28.4	12.6	28.5	25.7	22.5	28.5	0.0
R7	43.9	29.2	44.0	41.2	38.0	44.0	0.0

raised voice

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Daytime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)	Significance threshold (Leq)
R1	60.5	71.0	71.4	0.4	63.3	68.6	69.7	1.1	73.6
R2	40.9	58.6	58.7	0.1	43.7	58.1	58.3	0.2	63.1
R3	55.7	60.0	61.4	1.4	58.6	56.0	60.5	4.5	61.0
R4	36.5	56.3	56.3	0.0	39.3	53.7	53.9	0.2	58.7
R5	37.9	62.6	62.6	0.0	40.7	62.6	62.6	0.0	67.6
R6	25.7	62.3	62.3	0.0	28.5	58.3	58.3	0.0	63.3
R7	41.2	79.0	79.0	0.0	44.0	75.0	75.0	0.0	80.0

Appendix F

Utility Infrastructure Technical Report

700 South Flower Street, Suite 2100 Los Angeles, CA 90017 213.418.0201 kpff.com

LUCAS MUSEUM OF NARRATIVE ART

UTILITY INFRASTRUCTURE TECHNICAL REPORT: WATER, WASTEWATER, AND ENERGY

March 28, 2016

PREPARED BY:

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Appendix

Exhibit 1- LADWP “Information of Fire Flow Availability Request” (IFFAR) Results

Exhibit 2- City of Los Angeles “Service Advisory Report” (SAR) Results

Exhibit 3- City of Los Angeles “Sewer Capacity Availability Request” (SCAR) Results

Exhibit 4- LADWP Approved Will-Serve Letter

Exhibit 5- SoCalGas Approved Will-Serve Letter

Exhibit 6- MEP Correspondence - Electricity

Exhibit 7- MEP Correspondence - Gas

Figure 1- Hydrant Locations

1. INTRODUCTION

1.1. PROJECT DESCRIPTION

The University of California ("USC"), on behalf of The Lucas Museum Foundation, proposes the development of the Lucas Museum of Narrative Art ("LMNA") located within the western portion of Exposition Park. Exposition Park, comprised of 160 acres of land bounded by Exposition Boulevard to the north, Figueroa Street to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west, houses the Los Angeles Memorial Coliseum, the California Science Center, the Dr. Theodore T. Alexander Jr. Science Center School, the California African American Museum, the Los Angeles County Natural History Museum, the Exposition Park Rose Garden, the Wallis Annenberg Building, the Expo Center, which includes a swim stadium, recreation center, senior citizen center, amphitheater, and pre-school, and the future Banc of California stadium. USC's University Park Campus lies adjacent to the north of Exposition Park.

The proposed LMNA site is developed with surface parking lots with 1,297 parking spaces and a City operated soccer field. The LMNA site contains approximately 688,396 square feet of lot area and is bisected by West 39th Street. The LMNA Project Site is bounded by Vermont Avenue to the west, Jesse Brewer Jr. Park to the north, Bill Robertson Lane to the east, and Lots 124-128 of the Southern District Agricultural Park and Adjoining Lots Tract and Lots 7-10 of Tract 2441 to the south.

LMNA, a non-profit museum led by filmmaker George Lucas, would be a one-of-a-kind gathering place to experience art collections, films and exhibitions dedicated to the power of visual storytelling and the evolution of art and moving images in a setting focused on narrative painting, illustration, photography, film, animation and digital art. The museum will present original work by world renowned and emerging artists, cutting-edge digital technologies, and daily film screenings in state-of-the-art theaters, as well as extraordinary educational opportunities for students of all ages. The collections would include original, artist-made creations, from sketches to storyboards to sets and costumes from movies. The museum would also feature public lectures and classes for all ages, hands-on workshops, after-school programs and camps, and a wide variety of additional educational opportunities.

Special tours, talks, workshops and screenings would be tailored to serve the curriculum of students from grammar school to college age. Collection and Education Programming would include collection presentations, temporary exhibitions, daily film screenings, film premieres, public lectures, hands-on workshops, school tours and programs, classes for all ages, and campus-wide festivals. The LMNA would also include numerous amenities such as a sit-down restaurant, state-of-the-art cinematic theaters, museum store, casual café, lecture halls of various sizes, digital classrooms, video conferencing for guest lectures and workshops, a drop-in library, several spaces available for event rental, and production quality editing classrooms

The LMNA would include five-levels above grade rising to a maximum height of 115 feet with a 299,717 square feet of floor area. A two level parking structure would be located beneath the LMNA along with a separate three level subterranean parking structure

located adjacent to the south of the LMNA. A total of 2,202 parking spaces would be provided that would serve the LMNA and replace the existing surface parking. The soccer field would be relocated immediately south of the LMNA site at the corner of Vermont and Martin Luther King, Jr. Boulevard.

The LMNA design elevates at the fourth and fifth levels arching over 39th Street that creates a floating canopy with public park space below. The Project proposes to ultimately vacate 39th Street but would continue to function as a limited vehicular throughway that will also provide museum drop zones, museum entrance plazas, and would permit periodic special events in the vacated area that require closure of the throughway. At the ground level, the museum is split into two wings with two theatres and an entrance lobby located to the east of vacated 39th Street along with a café and museum shop. The ground floor of the west wing would include archive space, and offices with educational space and classrooms located on the second floor. The third level features a library. The two wings connect at the fourth level that would contain the LMNA's main exhibition spaces. The fifth level would feature additional exhibition space and a sit-down restaurant surrounded by a continuous public roof garden along the museum's perimeter with trees, seating areas, and terraces. From the proposed public roof garden, visitors would experience panoramic views of the surrounding Exposition Park and USC campus, Downtown Los Angeles, and surrounding mountains

The LMNA would be a focal point and civic gathering space for Exposition Park, providing public programs for the community and interactive landscape elements. The LMNA project proposes network of proximal open spaces with public open space at the ground level comprised of contoured landscaped areas connected by a series of meandering pedestrian walkways that would share visual and functional connections with the Natural History Museum to the northeast, Museum Park to the east, the Los Angeles Memorial Coliseum to the east, and Jesse Brewer Jr. park to the north.

1.2. SCOPE OF WORK

As a part of the Environmental Impact Report for the Project, the purpose of this report is to analyze the potential impact of the Project to the existing water, wastewater, and energy infrastructure system.

2. REGULATORY FRAMEWORK

2.1. WATER

The City of Los Angeles Department of Water and Power (LADWP) is responsible for providing water supply to the City while complying with Local, State, and Federal regulations.

Below are the State and Regional water supply regulations:

- Metropolitan Water District (MWD) official reports and policies as outlined in its Regional Urban Water Management Plan, Water Surplus and Drought Management Plan, Water Supply Allocation Plan, and Integrated Resources Plan.
- California Code of Regulations, Title 20, Chapter 4, Article 4, Section 1605 establishes water efficiency standards for all new plumbing fixtures and Section 1608 prohibits the sale of fixtures that do not comply with the regulations.
- 2013 California Green Building Standards Code, CCR, Title 24, Part 11, adopted on January 1, 2014, requires a water use reduction of 20% above the baseline cited in the CALGreen code book. The code applies to family homes, state buildings, health facilities, and commercial buildings.
- California Urban Water Management Planning Act of 1984 requires water suppliers to adopt an Urban Water Management Plan (UWMP). LADWP's 2015 Urban Water Management Plan outlines the City's long-term water resources management strategy. The Plan was approved by the LADWP Board of Water and Power Commissioners on June 7, 2016.
- Senate Bill 610 and Senate Bill 221, approved on October 9, 2001, require land use agencies to perform a detailed analysis of available water supply when approving large developments. Historically, public water suppliers (PWS) simply provided a "will serve" letter to developers. SB 610, Public Resources Code (PRC) and Section 10910-10915 of the State Water Code requires lead agencies to request a Water Supply Assessment (WSA) from the local water purveyor prior to project approval. If the projected water demand associated with a proposed development is included in the most recent UWMP, the development is considered to have sufficient water supply per California Water Code Section 10910, and a WSA is not required. All projects that meet any of the following criteria require a WSA:

    1) A proposed residential development of more than 500 dwelling units.

    2) A proposed shopping center or business establishment of more than 500,000 square feet of floor space or employing more than 1,000 persons

    3) A proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons

    4) A proposed hotel or motel of more than 500 rooms

    5) A proposed industrial, manufacturing, or processing plant or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons

    6) A mixed use project that falls in one or more of the above-identified categories

    7) A project not falling in one of the above-identified categories but that would demand water equal or greater than the amount required by a 500-dwelling unit project.

As this Project does not trigger any of the above thresholds, a WSA is not required for this Project.

2.2. WASTEWATER

The City of Los Angeles (City) has one of the largest sewer systems in the world including more than 6,600 miles of sewers serving a population of more than four million. The Los Angeles sewer system is comprised of three systems: Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and Regional Sanitary Sewer System. To comply with Waste Discharge Requirements (WDRs), a Sewer System Management Plan (SSMP) was prepared for each of these systems.

The Project Site lies within the Hyperion Service Area served by the Hyperion Sanitary Sewer System. In February 2015, an SSMP was prepared for the Hyperion Sanitary Sewer System pursuant to the State Water Resources Control Board's (SWRCB) May 2, 2006 Statewide General Waste Discharge Requirements (WDRs)[1].

Sewer permit allocation for projects that discharge into the Hyperion Treatment Plant is regulated by Ordinance No. 166,060 adopted by the City in 1990. The Ordinance established an additional annual allotment of 5.0 million gallons per day, of which 34.5 percent (1.725 million gallons per day) is allocated for priority projects, 8 percent (0.4 million gallons per day) for public benefit projects, and 57.5 percent (2.875 million gallons per day) for non-priority projects (of which 65 percent is for residential project and 35 percent for non-residential projects).

The City of Los Angeles Municipal Code (LAMC) includes regulations that allow the City to assure available sewer capacity for new projects and fees for improvements to the infrastructure system. LAMC Section 64.15 requires that the City perform a Sewer Capacity Availability Request (SCAR) when any person seeks a sewer permit to connect a property to the City's sewer collection system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR is an analysis of the existing sewer collection system to determine if there is adequate capacity existing in the sewer collection system to safely convey the newly generated sewage to the appropriate sewage treatment plant.

LAMC Section 64.11.2 requires the payment of fees for new connections to the sewer system to assure the sufficiency of sewer infrastructure. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage Facilities Charge is based upon wastewater flow strength, as well as volume. The determination of wastewater strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters, biological oxygen demand and suspended solids, for each type of land use. Fees paid to the Sewerage Facilities Charge are deposited in the City's Sewer Construction and

[1] City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewer System Management Plan Hyperion Sanitary Sewer System, February 2015.

Maintenance Fund for sewer and sewage-related purposes, including but not limited to industrial waste control and water reclamation purposes.

In addition, the City establishes design criteria for sewer systems to assure that new infrastructure provides sewer capacity and operating characteristics to meet City Standards (Bureau of Engineering Special Order No. SO06-0691). Per the Special Order, laterals sewers, which are sewers 18 inches or less in diameter, must be designated for a planning period of 100 years. The Special Order also requires that sewers be designed so that the peak dry weather flow depth during their planning period shall not exceed one-half the pipe diameter.[2]

In 2006 the City approved the Integrated Resources Plan, which incorporates a Wastewater Facilities Plan.[3] The Integrated Resources Program was developed to meet future wastewater needs of more than 4.3 million residents expected to live within the City by 2020. In order to meet future demands posed by increased wastewater generation, the City has chosen to expand its current overall treatment capacity, while maximizing the potential to reuse recycled water through irrigation, and other approved uses.

2.3. ENERGY

2.3.1. ELECTRICITY

The *2016 Power Integrated Resource Plan* (IRP)[4] document serves as a comprehensive 20 year roadmap that guides LADWP's Power System in its efforts to supply reliable electricity in an environmentally responsible and cost effective manner. The 2016 IRP re-examines and expands its analysis on the 2015 IRP recommended case with updates in line with latest regulatory framework, primarily the recently approved state legislation of a 50 percent renewable portfolio standard by 2030.

The 2016 IRP provides detailed analysis and results of several new IRP resource cases which investigated the economic and environmental impact of increased local solar and various levels of transportation electrification. In analyzing the IRP cases and recommending a strategy to best meet the future electric needs of Los Angeles, the IRP uses system modeling tools to analyze and determine the long-term economic, environmental, and operational impact of alternative resource portfolios by simulating the integration of new resource alternatives within our existing mix of assets and providing the analytic results to inform the selection of a recommended case.

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[2] City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Planning CEQA Analysis in Los Angeles, M-Public Utilities, 2006. http://www.environmentla.org/programs/thresholds/M-Public%20Utilities.pdf accessed February 9, 2017.

[3] City of Los Angeles, Department of Public Works, LA Sewers Website, Integrated Resources Plan Facilities Plan, Summary Report, December 2006.

[4] LADWP, 2016 Power Integrated Resource Plan, December 2016.

The IRP also includes a general assessment of the revenue requirements and rate impacts that support the recommended resource plan through 2035. While this assessment will not be as detailed and extensive as the financial analysis to be completed for the ongoing rate action for the 2015/16 fiscal year and beyond, it clearly outlines the general requirements. As a long-term planning process, the IRP examines a 20-year horizon in order to secure adequate supplies of electricity. In that respect, it is LADWP's goal that the IRP contribute towards future rate actions, by presenting and discussing the programs and projects required to fulfill our City Charter mandate of delivering reliable electric power to the City.

Regulatory interpretations of primary regulations and state laws affecting the Power System, including AB 32, SB 1368, SB 1, SB 2 (1X), SB 350, SB 32, US EPA Rule 316(b), and US Clean Power Plan continue to evolve particularly with certification requirements of existing renewable projects and their applicability towards meeting in-state or out-of-state qualifications. The 2016 IRP attempts to incorporate the latest interpretation of these major regulations and state laws as we understand them today.[4]

2.3.2. NATURAL GAS

The *2016 California Gas Report*[5] presents a comprehensive outlook for natural gas requirements and supplies for California through the year 2035. This report is prepared in even-numbered years, followed by a supplemental report in odd-numbered years, in compliance with California Public Utilities Commission Decision D.95-01-039. The projections in the California Gas Report are for long-term planning and do not necessarily reflect the day-to-day operational plans of the utilities.

California natural gas demand, including volumes not served by utility systems, is expected to decrease at a rate of 1.4 percent per year from 2016 to 2035. The forecast decline is a combination of moderate growth in the Natural Gas Vehicle (NGV) market and across-the-board declines in all other market segments: residential, commercial, electric generation, and industrial markets.

Residential gas demand is expected to decrease at an annual average rate of 0.5 percent. Demand in the commercial and industrial markets are expected to decline at an annual rate of 0.24 percent. Aggressive energy efficiency programs make a significant impact in managing growth in the residential, commercial, and industrial markets. For the purpose of load-following as well as backstopping intermittent renewable resource generation, gas-fired generation will continue to be the primary technology to meet the ever-growing demand for electric power. However, overall gas demand for electric generation is expected to decline at 1.3 percent per year for the next 20 years due to more efficient power plants, statewide efforts to minimize greenhouse gas (GHG) emissions through aggressive programs pursuing demand-side reductions, and the acquisition of preferred power generation resources that produce little or no carbon emissions.

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5 California Gas and Electric Utilities, 2016 California Gas Report, 2016.

In 2015, the state enacted legislation intended to improve air quality, provide aggressive reductions in energy dependency and boost the employment of renewable power. The first legislation, the 2015 Clean Energy and Pollution Reduction Act, also known as Senate Bill (SB) 350, requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030. SB 350 establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses by January 1, 2030. Second, the Energy Efficiency Act (AB 802) provides aggressive state directives to increase the energy efficiency of existing buildings, requires that access to building performance data for nonresidential buildings be provided by energy utilities and encourages pay-for performance incentive-based programs. This paradigm shift will allow California building owners a better and more effective way to access whole-building information and at the same time will help to address climate change, and deliver cost-effective savings for ratepayers. Last, the Energy Efficiency Act (AB 793) is intended to promote and provide incentives to residential or small and medium-sized business utility customers that acquire energy management technology for use in their home or place of business. AB 793 requires energy utilities to develop a plan to educate residential customers and small and medium business customers about the incentive program.[5]

3. ENVIRONMENTAL SETTING

3.1. WATER

LADWP is responsible for providing water supply to the City while complying with Local, State, and Federal regulations.

3.1.1. REGIONAL

Primary sources of water for the LADWP service area are the Los Angeles Aqueducts (LAA), local groundwater, State Water Project (supplied by MWD). The Los Angeles Aqueduct has been the primary source of the City's water supply. In recent years, however, the amount of water supplies from the Los Angeles Aqueduct has been limited due to environmental concerns, and the City's water supply relied heavily (average of 57% in recent years) on the purchased water from MWD and delivered from the Colorado River or from the Sacramento-San Joaquin Delta. Local ground water has been reliable local water source, providing an average of 12% of the total water supply, but there have been concerns in recent years due to declining groundwater level and contamination issues. Lastly, the City's recycled water supply is limited to specific projects within the City at this time.[6]

3.1.2. LOCAL

LADWP maintains water infrastructure around the Project Site. Based on available record data and a water service map provided by LADWP, there is a 12-inch water main

[6] LADWP, 2015 Urban Water Management Plan, June 2016.

in Vermont Avenue on the west side of the Project Site, a 4-inch water main in Bill Robertson Lane on the east side of the Project Site, an 8-inch water main in 39th Street within the Project Site, and an 8-inch water main in the vacated Leighton Ave within the south side of the Project Site. Based on the water service map, it appears there are no existing domestic or fire water services to the Project Site.

Additionally, there are 6 public hydrants in the vicinity of the Project Site. See Figure 1 for approximate hydrant locations.

3.1.3. ON SITE

As described above, the Project Site is currently composed of three surface parking lots and a turf soccer field, and it appears there are no existing domestic or fire water service services from the water mains located in either Vermont Ave or Bill Robertson Lane. 39th Street, a City public street, is also within the Project Site. Based on available record data from the City, there is an existing an 8-inch water main and 2.5-inch water service for street maintenance and irrigation within 39th Street which may need to be relocated or removed. Based on the current site plan, a potential reroute of the water main would be within a new utility corridor on the north side of the Museum, south of Jesse Brewer Park. The 8-inch water main in the vacated Leighton Avenue may also need to be relocated or rerouted around proposed structures. Based on the current site plan, a potential reroute of this water main would be within a new utility corridor between the Museum and the Parking Garage structures.

3.2. WASTEWATER

3.2.1. REGIONAL

The Bureau of Sanitation (BOS) operates and maintains the wastewater treatment, reclamation and collection facilities serving most of the City incorporated areas as well as several other cities and unincorporated areas in the Los Angeles basin and San Fernando Valley. As stated above, the collection infrastructure consist of over 6,600 miles of local, trunk, mainline and major interceptor sewers, five major outfall sewers, and 46 pumping plants. The wastewater generated by the Project ultimately flows to the Hyperion Treatment Plant (HTP) System. The existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (mgd)[1] and the existing average daily flow for the system is approximately 300 mgd.[1]

3.2.2. LOCAL

Sanitary sewer service to the Project Site from the surrounding streets is provided by the Los Angeles Bureau of Sanitation. There are multiple sanitary sewer mains surrounding the project site with estimated capacities from the online Navigate LA database. An 8-inch sewer main in Vermont Ave ultimately flows west on 39th Street and has a calculated capacity of 0.709 cfs. An existing 15-inch sewer main in Bill Robertson Lane flows north to Exposition Blvd and does not have a calculated capacity. An existing 8-inch sewer main in Bill Robertson Lane flows south, then turns west down the vacated

Leighton Avenue, and ultimately flows south on Vermont Ave and has a calculated capacity of 0.709 cfs.

These sewer mains connect to a network of sewer lines which ultimately convey wastewater to the HTP System.

3.2.3. ON SITE

As described above, the Project Site is currently composed of three surface parking lots and a turf soccer field with one apparent existing sewer service. The existing sewer service may be removed or relocated to the new turf soccer field location.

Because the proposed Project Site includes the vacated Leighton Ave, the 8-inch sewer main in this area may need to be relocated or re-routed around the proposed structures. Based on the current site plan, a potential reroute of this sewer main would be within a new utility corridor between the Museum and the Parking Garage structures.

3.3. ENERGY

3.3.1. ELECTRICITY

LADWP is responsible for providing power supply to the City while complying with Local, State, and Federal regulations.

3.3.1.1. REGIONAL

LADWP's Power system is the nation's largest municipal electric utility, and serves a 465-square-mile area in Los Angeles and much of the Owens Valley. The system supplies more than 26 million megawatt-hours (MWh) of electricity a year for the City's 1.4 million residential and business customers as well as over 5,000 customers in the Owens Valley. LADWP has over 7,460 megawatts (MW) of generation capacity from a diverse mix of energy sources including Renewable energy, Natural Gas, Nuclear, Large Hydro, coal and other sources. The distribution network includes 6,800 miles of overhead distribution lines and 3,597 miles of underground distribution cables.[4]

3.3.1.2. LOCAL

Based on available record drawings, existing LADWP power infrastructure around the Project Site includes underground conduit in Vermont Avenue and overhead power poles and wires in Vermont Avenue, 39th Street, and the existing parking lots. Additionally, there are underground conduits in Bill Robertson Lane north of 39th Street.

3.3.1.3. ON-SITE

As described above, the Project Site is currently composed of three surface parking lots and a turf soccer field, and there are existing light poles, overhead power poles, and a guard shack within the Project Site. Based on available record data from the City, the overhead power poles are connected to the overhead power infrastructure in Vermont Ave. The light poles throughout the Project Site are connected to both overhead and underground infrastructure.

3.3.2. NATURAL GAS

Southern California Gas Company (SoCalGas) is responsible for providing natural gas supply to the City and is regulated by the California Public Utilities Commission and other state and federal agencies.

3.3.2.1. REGIONAL

SoCalGas is the principal distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange and storage services and also procurement services to most retail core customers. SoCalGas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery (EOR) and electric generation (EG) customers in Southern California. SoCalGas's natural gas system is the nation's largest natural gas distribution utility, and serves a 20,000 square-mile area in Central and Southern California. The system supplies natural gas to 21.6 million customers through 5.9 million meters in more than 500 communities.[5]

3.3.2.2. LOCAL

Based on substructure maps provided by the City, existing SoCalGas infrastructure around the Project Site includes 4-inch gas mains in Bill Robertson Lane, 39th Street, and Vermont Avenue, and a 6-inch gas main in the vacated Leighton Avenue. Additionally, there appears to be gas mains within the Project Site, including a 4-inch in 39th Street and a 3-inch within the north side of State Parking Lot 2.

3.3.2.3. ON-SITE

As described above, the Project Site is currently composed of three surface parking lots and a turf soccer field with no apparent existing gas services. Gas mains within 39th Street may need to be relocated or rerouted. Based on the current site plan, a potential reroute of this gas main would be within a new utility corridor on the north side of the Museum, south of Jesse Brewer park. The 6-inch gas main in the vacated Leighton Avenue may need to be relocated or rerouted around the proposed structures. Based on the current site plan, a potential reroute of this gas main would be within a new utility corridor between the Museum and the Parking Garage structures.

4. SIGNIFICANCE THRESHOLDS

4.1. WATER

The *L.A. CEQA Thresholds Guide* determines significance of a project on a case-by-case basis, considering the following factors:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing or employment for the Community Plan area to be exceeded in the year of the project completion; and
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant water infrastructure impacts.

4.2. WASTEWATER

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to wastewater. These questions are as follows:

Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

In the context of these questions from the CEQA Guidelines, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant wastewater impact if:

- The project would cause a measureable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or

- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.[7]

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater infrastructure impacts.

4.3. ENERGY

Appendix F of the CEQA Guidelines states that the potentially significant energy implications of a project, as well as its measures to reduce inefficient, wasteful, and unnecessary consumption of energy as noted in Public Resources Code (PRC) 21100(b)(3), should be considered in an EIR. Environmental impacts, as noted in Appendix F, may include:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal. if appropriate, the energy intensiveness of materials may be discussed;
- The effects of the project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the project on peak and base period demands for electricity and other forms of energy;
- The degree to which the project complies with existing energy standards;
- The effects of the project on energy resources;
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Mitigation measures, as noted in PRC 21100(b)(3), may include:

- Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal;
- The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, increase water conservation and reduce solid waste;

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[7] The Wastewater Facilities Plan referenced in the L.A. CEQA Thresholds Guide has since been superseded by the Integrated Resources Plan. Accordingly, when analyzing the Project, the Integrated Resource Plan is the applicable threshold.

- The potential for reducing peak energy demand;
- Alternate fuels (particularly renewable ones) or energy systems;
- Energy conservation which could result from recycling efforts.

In the context of the above thresholds, the *L.A. CEQA Thresholds Guide* states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

Based on these factors, the Project would have a significant impact on energy resources if the project would result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities, or the design of the project fails to incorporate energy conservation measures that go beyond existing requirements.

5. METHODOLOGY

5.1. WATER

The methodology for determining the significance of a project as it relates to a project's impact on water supply and distribution infrastructure is based on the *L.A CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of major water infrastructure serving the Project Site, including the type of facilities, location and sizes, and any planned improvements.
- Description of the water conditions for the Project area and known improvement plans.

Project Impacts

- Review the Project description and the information from the Environmental Setting and Evaluation of Screening Criteria.

- Determine what improvements would be needed, if any, to adequately serve the Project.

- Describe the degree to which presently scheduled off-site improvements offset impacts.

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

The proposed water consumption is based upon 120% of the BOS sewerage generation factors. The proposed fire water demand is based upon the maximum flow allowable through a new LADWP 10" fire service meter. This will be updated with Plumbing Engineer estimated demand as needed.

LADWP performed a hydraulic analysis of their water system to determine if adequate fire flow is available from the fire hydrants surrounding the Project Site. LADWP's approach consists of analyzing their water system model in the vicinity of the Project Site. Based on the results, LADWP determines whether they can meet the Project fire hydrant flow needs based on existing infrastructure. See Exhibit 1 for the results of the Information of Fire Flow Availability Request (IFFAR).

In addition, LADWP performed a flow test to determine if sufficient water conveyance is available for the proposed Project. LADWP's approach provides data ranging from available static pressure (meaning how much pressure is available at the source before applying the project's demand), to the available pressure at the maximum demand needed for the project. Based on the results, LADWP determines whether they can meet the project needs based on existing infrastructure. See Exhibit 2 for the results of the Service Advisory Request (SAR).

5.2. WASTEWATER

The methodology for determining the significance of a project as it relates to a project's impact on wastewater collection and treatment infrastructure is based on the *L.A.CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Location of the Project and appropriate points of connection to the wastewater collection system on the pertinent Wye Map.

- Description of the existing wastewater system which would serve the Project, including its capacity and current flows.

- Summary of adopted wastewater-related plans and policies that are relevant to the Project area.

Project Impacts

- Evaluate the Project's wastewater needs (anticipated daily average wastewater flow), taking into account design or operational features that would reduce or offset service impacts.

- Compare the Project's wastewater needs to the appropriate sewer's capacity and/or the wastewater flows anticipated in the Wastewater Facilities Plan or General Plan.

This report analyzes the potential impacts of the Project on the existing public sewer infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

The Bureau of Sanitation, Wastewater Engineering Division made a preliminary analysis of the local and regional sewer conditions to determine if available wastewater conveyance and treatment capacity exists for future development. The Bureau of Sanitation's approach consisted of the study of a worst-case scenario envisioning peak demands from the relevant facilities occurring simultaneously on the wastewater system. A combination of flow gauging data and computed results from the City's hydrodynamic model were used to project current and future impacts due to additional sewer discharge. The data used in this report are based on the findings of the BOS preliminary analysis. Refer to Exhibit 3 for results of the BOS preliminary analysis.

5.3. ENERGY

The methodology for determining the significance of a project as it relates to a project's impact on wastewater collection and treatment infrastructure is based on the *L.A. CEQA Thresholds Guide*. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of the electricity and natural gas supply and distribution infrastructure serving the Project Site. Include plans for new transmission facilities or expansion of existing facilities.

- Summary of adopted energy conservation plans and policies relevant to the project.

Project Impacts

- Evaluation of the new energy supply and distribution systems which the project would require.

- Describe the energy conservation features that would be incorporated into project design and/or operation that go beyond City requirements, or that

would reduce the energy demand typically expected for the type of project proposed.

- Consult with the DWP or The Gas Company, if necessary to gauge the anticipated supply and demand conditions at project buildout.

This report analyzes the potential impacts of the Project on existing energy infrastructure by comparing the estimated Project energy demand with the available capacity. Will-serve letters from LADWP and SoCalGas (Exhibits 4 and 5) demonstrate the availability of sufficient energy resources to supply the Project's demand.

In addition, potential energy impacts were analyzed by evaluating the energy demand and energy conserving features of the Project to determine whether the Project would involve the wasteful, inefficient, and unnecessary use of energy resources.

6. PROJECT IMPACTS

6.1. CONSTRUCTION

6.1.1. WATER

Water demand for construction of the Project would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Based on a review of construction projects of similar size and duration, a conservative estimate of construction water use ranges from 1,000 to 2,000 gallons per day (gpd). Because there is capacity in the existing water infrastructure as shown in the SAR (Exhibit 2) for the proposed project, it is anticipated that the existing water infrastructure would meet the limited and temporary water demand associated with construction of the Project. Impacts on the water infrastructure due to construction activity would be less than significant.

The Project will require construction of new, on-site water distribution lines to serve the new building and potential relocation of existing lines. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the lines below surface. Installation of new water infrastructure will be limited to on-site water distribution, and minor off-site work associated with connections to the public main. No upgrades to public water mains are anticipated. Prior to ground disturbance, project contractors would coordinate with LADWP to identify the locations and depth of all lines. Further, LADWP would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. Therefore, Project impacts on water associated with construction activities would be less than significant.

6.1.2. WASTEWATER

Construction activities for the Project would result in a temporary increase in wastewater generation as a result of construction workers on-site. Wastewater generation would occur incrementally throughout construction of the Project. However, such use would be temporary and nominal when compared with the Project Site wastewater generation in the existing condition. In addition, construction workers would typically utilize portable

restrooms, which would not contribute to wastewater flows to the City's wastewater system. In the event there is an increase in wastewater flow during construction, this increase would be limited. Because there is capacity in the existing sewer infrastructure as shown in the SCAR (Exhibit 3) for the proposed project, this potential and limited increase is anticipated to be within the capacity of the existing wastewater facilities. Therefore, the Project construction impacts to the wastewater system would be less than significant.

The Project will require construction of new on-site infrastructure to serve the new building, relocation of existing infrastructure, and potential upgrade and relocation of existing infrastructure. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to public infrastructure. Installation of wastewater infrastructure will be limited to on-site wastewater distribution, and minor off-site work associated with connections to the public main. Although no upgrades to the public main are anticipated, minor off-site work is required in order to connect to the public main. Therefore, a Construction Management Plan would be implemented to reduce any temporary pedestrian and traffic impacts. The contractor would implement the Construction Management Plan, which would ensure safe pedestrian access and vehicle travel in general, and emergency vehicle access, in particular, throughout the construction period. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. Therefore, Project impacts on wastewater associated with construction activities would be less than significant.

6.1.3. ENERGY

Electrical power would be consumed to construct the new building and facilities of the proposed Project. Typical uses include temporary power for lighting, equipment, construction trailers, etc. The demand would be supplied from existing electrical services within the Project Site, a new temporary service, or temporary mobile generators, which would not affect services to surrounding areas. The use of renewable energy sources during construction is not anticipated. Overall, demolition and construction activities would require minimal electrical consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. Therefore, impacts on electricity supply associated with short-term construction activities would be less than significant.

No natural gas usage is expected to occur during construction. Therefore, impacts on natural gas supply associated with short-term construction activities would be less than significant.

Construction impacts associated with the Project's electrical and gas infrastructure upgrades would primarily be confined to trenching. Infrastructure improvements will comply with all applicable LADWP, SoCalGas, and City of Los Angeles requirements, which are expected to and would in fact mitigate impact to existing energy systems and adjacent properties. As stated above, to reduce any temporary pedestrian access and traffic impacts during any necessary off-site energy infrastructure improvements, a construction management plan would be implemented to ensure safe pedestrian and

vehicular travel. Therefore, Project impacts on energy infrastructure associated with construction activities would be less than significant.

6.2. OPERATION

6.2.1. WATER

6.2.1.1. INFRASTRUCTURE CAPACITY

When analyzing the Project for infrastructure capacity, the estimated operational demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption in the long term, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Conservative analysis for both fire suppression and domestic water flows has been completed by LADWP for the Project. See Exhibit 1 and Exhibit 2 for the results of the IFFAR and SAR, respectively, which together demonstrate that adequate water infrastructure capacity exists.

6.2.1.2. FIRE WATER DEMAND

Based on fire flow standards set forth in Section 57.507.3 of the LAMC, the Project falls within the Commercial category, which has a required fire flow of 6,000 gallons per minute (gpm) from hydrants flowing simultaneously with a residual pressure of 20 pounds per square inch. This demand translates to a required flow of 2,000 gpm each from three hydrants. An IFFAR was submitted to LADWP regarding available fire hydrant flow to demonstrate compliance. The completed IFFAR, attached as Exhibit 1, shows three nearby hydrants flowing simultaneously for a combined 6,000 gpm. As shown by the IFFAR, the Project Site has adequate fire flow available to demonstrate compliance with Section 57.507.3 of the LAMC.

Furthermore, LAMC Section 57.513, Supplemental Fire Protection, states that:

> Where the Chief determines that any or all of the supplemental fire protection equipment or systems described in this section may be substituted in lieu of the requirements of this chapter with respect to any facility, structure, group of structures or premises, the person owning or having control thereof shall either conform to the requirements of this chapter or shall install such supplemental equipment or systems. Where the Chief determines that any or all of such equipment or systems is necessary in addition to the requirements of this chapter as to any facility, structure, group of structures or premises, the owner thereof shall install such required equipment or systems.

The Project will incorporate a fire sprinkler suppression system to reduce or eliminate the public hydrant demands, which will be subject to Los Angeles Fire Department

review and approval during the design and permitting of the Project. Fire service flows to serve sprinkler systems in the new building has been estimated as the maximum allowable fire flow through a new LADWP 10" fire service. Estimated fire flow demand from Plumbing Engineer to be updated as needed. Based on Section 94.2020.0 of the LAMC that adopts by reference NFPA 14-2013 including Section 7.10.1.1.5, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building would be 1,250 gpm. Thus, the estimated fire service flows are compliant with the Fire Code.

In addition, an LADWP Service Advisory Report (SAR) was submitted in order to determine if the existing public infrastructure could meet the private water demands of the Project. The SAR, (Exhibit 2) shows a static pressure of 75 pounds per square inch and that a flow of 5,000 gpm can be delivered to the Project Site with a residual pressure of 59 pounds per square inch, which satisfies the private water system demands. With compliance with LAFD and LADWP requirements, fire flow impacts would be less than significant to water infrastructure.

6.2.1.3. DOMESTIC WATER DEMAND

Water consumption estimates have been prepared based on 120% of BOS sewerage generation factors and are summarized in Table 1 below.

Table 1- Existing Water Demand Vs. Estimated Proposed Water Demand				
Connection To:	Facility	Average Daily Flow (gpd/unit)[a]	Quantity	Average Daily Water Demand (gal) [g]
Total Existing Water Demand for Project Site				
Vermont Ave (12" LADWP Water Main)	Parking Lot	0 gsf[c]	0 gsf	**0**
Total Proposed Water Demand for Project Site				**0**
Vermont Ave (12" LADWP Water Main)	Museum/ Education/ Operation/ Public Spaces/ Archive[b]	36/1000 gsf	193,615 gsf	6,970
	Shop[d]	30/1000 gsf	2,973 gsf	89
	Theater	3.6/seat	600 seats	2,160
	Restaurant/ Cafe	36/seat	184 seats	6,624
	Event Space[e]	420/1000 gsf	9,433 gsf	3,692
	Office[f]	144/1000 gsf	11,946 gsf	1,720
Total Proposed Water Demand for Project Site				**21,255**
Net Increase in Water Demand for Project Site Due to Project				**21,255**

[a] The average daily flow based on BOS sewerage generation factors inflated by 120%.

[b] The standard BOS Facility Description "Museum" was used to best represent the proposed uses of the Museum/ Education/ Operation/ Public Spaces/ Archive spaces.

[c] Gross square feet.

[d] The standard BOS Facility Description "Retail" was used to represent the Shops.

[e] The standard BOS Facility Description "Banquet" was used to represent the Event Space.

[f] The standard BOS Facility Description "Museum: Office" was used to represent the Office.

[g] Average daily water demand = Average daily flow x Quantity (Exhibit 2).

The approved SAR confirms that sufficient capacity is available for the Project. The Project proposes to connect to the existing 12-inch main in Vermont Avenue with a lateral that will be adequately sized to simultaneously accommodate fire demand and domestic demand. In addition, the services will include backflow prevention devices and separate meters per City requirements. Therefore, impacts on water supply would be less than significant.

6.2.2. WASTEWATER

6.2.2.1. SEWER GENERATION

In accordance with the *L.A. CEQA Thresholds Guide*, the base estimated sewer flows were based on the BOS sewerage generation factors for commercial categories, and are summarized in Table 2 below.

Table 2 – Existing Wastewater Generation Vs. Estimated Proposed Wastewater Generation			
Facility	Average Daily Flow (gpd/unit)[a]	Quantity	Average Daily Wastewater Generation (gal) [g]
Existing			
Comfort Station: Public	80/fixture[c]	4 fixtures	320
Total Existing Wastewater Generation for Project Site			**0**
Proposed			
Museum/ Education/ Operation/ Public Spaces/ Archive[b]	30/1000 gsf	193,615 gsf	5,808
Shop[d]	25/1000 gsf	2,973 gsf	74
Theater	3/seat	600 seats	1,800
Restaurant/ Cafe	30/seat	184 seats	5,520
Event Space[e]	350/1000 gsf	9,433 gsf	3,302
Office[f]	120/1000 gsf	11,946 gsf	1,434
Comfort Station: Public	80/fixture	4 fixtures	320
Total Proposed Wastewater Generation for Project Site			**18,258**
Net Increase in Wastewater Generation for Project Site Due to Project			**17,938**

[a] The average daily flow based on BOS sewerage generation factors.

[b] The standard BOS Facility Description "Museum" was used to best represent the proposed uses of the Museum/ Education/ Operation/ Public Spaces/ Archive spaces.

[c] Gross square feet.

[d] The standard BOS Facility Description "Retail" was used to represent the Shops.

[e] The standard BOS Facility Description "Banquet" was used to represent the Event Space.

[f] The standard BOS Facility Description "Museum: Office" was used to represent the Office.

[g] Average daily water demand = Average daily flow x Quantity (Exhibit 2).

A Sewer Capacity Availability Request (SCAR) was submitted to determine whether the existing public infrastructure can accommodate the Project. The SCAR submitted shows an average wastewater flow of 17,938 gpd split five ways to the 8-inch sewer main in Vermont Avenue, 8-inch sewer main in Bill Robertson Lane, and 15-inch sewer main in Bill Robertson Lane. There is an existing Sewer Connection Certificate for the existing fixtures within the turf soccer field. Assuming the relocated turf field will reuse this existing certificate, those fixtures were not included in the Project SCAR. See Exhibit 3 for approved SCAR results.

As further discussed below, the existing design capacity of the Hyperion Service Area is approximately 550 mgd (consisting of 450 mgd at the Hyperion Treatment Plant, 80 mgd at the Donald C. Tillman Water Reclamation Plant, Reclamation Plant, and 20 mgd at the Los Angeles–Glendale Water Reclamation Plant).[8] The Project's proposed net increase in wastewater generation is approximately 0.020 MGD, which is less than one percent of the Hyperion Treatment Plant's capacity. Consequently, impacts on wastewater treatment capacity are less than significant.

6.2.2.2. INFRASTRUCTURE CAPACITY

The existing capacities of the 8-inch sewer line in Vermont Avenue and the 8-inch sewer line in Bill Robertson Lane are both approximately 0.709 cfs (458,149 gpd). The Project's net increase in average sewage generation is approximately 17,938 gpd. This represents less than 5% of each pipe's capacity. Therefore, impacts on wastewater infrastructure would be less than significant.

6.2.3. ENERGY

6.2.3.1. ELECTRICITY

The Project will increase the demand for electricity resources. Based on an e-mail and preliminary load calculations from AlfaTech[9], the estimated electrical load for the Project is 6,000 kVA split between a South Substation and North Substation rated at 3,000 amps and 4,000 amps respectively. The main LADWP substation is located at 38th Street and Vermont Avenue, which is to the northwest of the Project Site. From this substation, a 34 kV underground feeder will be bought along the east side of Vermont Avenue to a new underground utility vault at the West side of the building, in proximity to the building's main electrical room. The vault will contain two sets of LADWP 34 kV – 480 V transformers and primary switches. Two sets of 480 Volt service entrance conduits will be routed underground from this vault location to the building's main switchboards located in the two main electrical rooms on each side of the building (see Exhibit 6).

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8 City of Los Angeles Department of Public Works, Bureau of Sanitation, Water Reclamation Plants, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p?_adf.ctrl-state=oep8lwkld_4&_afrLoop=28344654751341747#!, accessed October 26, 2016.

9 E-mail from AlfaTech dated March 21, 2017.

A will serve letter was sent to LADWP to determine if there is sufficient capacity to serve the Project. Based on the response from LADWP (see Exhibit 4), impacts related to electrical services would be less than significant.

6.2.3.2. NATURAL GAS

The Project will increase the demand for natural gas resources. Based on an e-mail from AlfaTech[10], the estimated kitchen gas load is 3,000 MBH and the building gas load is 400 MBH for the Museum. Each will have its own meter. Space heating for the Museum will be provided by a geothermal system with heat recovery (heating/cooling) chillers (see Exhibit 7).

A will serve letter request was sent to the gas company to determine if there is sufficient capacity to serve the Project. Based on the response from SoCalGas (see Exhibit 5), impacts related to gas services would be less than significant.

6.3. CUMULATIVE IMPACTS

6.3.1 WATER

The geographic context for the cumulative impact analysis on water supply is the LADWP service area (i.e., the City). As discussed above, LADWP, as a public water service provider, is required to prepare and periodically update an Urban Water Management Plan to plan and provide for water supplies to serve existing and projected demands. The 2015 Urban Water Management Plan prepared by LADWP accounts for existing development within the City, as well as projected growth through the year 2040.

Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. As described in the Regulatory Framework section above, the types of projects that are subject to the requirements of Senate Bill 610 tend to be larger projects that may or may not have been included within the growth projections of the 2015 Urban Water Management Plan. The water supply assessment for projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Furthermore, as discussed above, through LADWP's Urban Water Management Plan process and the *City's Securing L.A.'s Water Supply,* the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling. These plans outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies. LADWP is planning to achieve these goals by expanding its water conservation program. To increase recycled water use, LADWP is expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.

[10] E-mail from AlfaTech dated March 16, 2017

Compliance of the Project and future development projects with regulatory requirements that promote water conservation such as the Los Angeles Municipal Code, including the City's Green Building Code, as well as AB 32, would also assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, it is anticipated that LADWP would be able to supply the demands of the Project and future growth through the estimated Project Buildout Date and beyond. Therefore, cumulative impacts on water supply would be less than significant.

6.3.2 WASTEWATER

The Proposed Project will result in the additional generation of sewer flow. However, as discussed above the Bureau of Sanitation has conducted an analysis of existing and planned capacity and determined that adequate capacity exists to serve the Project. Related projects connecting to the same sewer system are required to obtain a sewer connection permit and submit a Sewer Capacity Availability Request to the Bureau of Sanitation as part of the related project's development review. Impact determination will be provided following the completion of the SCAR analysis. If system upgrades are required as a result of a given project's additional flow, arrangements would be made between the related project and the Bureau of Sanitation to construct the necessary improvements.

Wastewater generated by the Proposed Project would be conveyed via the existing wastewater conveyance systems for treatment at the Hyperion Treatment Plant system. As previously stated, based on information from the Bureau of Sanitation, the existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (mgd)[8] and the existing average daily flow for the system is approximately 300 mgd[1]. In comparison, the estimated increase in wastewater generation from the Proposed Project is only 17,938 gpd as summarized in Table 2. It is expected that the related projects would also be required to adhere to the Bureau of Sanitation's annual wastewater flow increase allotment.

Based on these forecasts, the Project's wastewater generation would be adequately accommodated by the Hyperion Service Area. In addition, the City Bureau of Sanitation's analysis confirms that the Hyperion Treatment Plant has sufficient capacity and regulatory allotment for the Proposed Project. Thus, operation of the Project would have a less than significant impact on wastewater treatment facilities.

6.3.3 ENERGY

The geographic context for the cumulative analysis of electricity is LADWP's power service area, and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. The geographic context for transportation energy use is the City of Los Angeles. Growth within these areas is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure and facilities.

Buildout of the Project and additional growth forecasted to occur in the City would increase electricity consumption during project construction and operation and, thus, cumulatively increase the need for energy supplies and infrastructure capacity. LADWP forecasts that its peak demand in the 2020–2021 fiscal year (the project buildout year) will be 5718 MW of electricity.[11] Based on the Project's estimated net electrical consumption of 5.1 MW, the Project would account for approximately 0.09 percent of LADWP's projected available capacity for the Project's build-out year. Although future development would result in the irreversible use of renewable and non-renewable electricity resources during project construction and operation, the use of such resources would be on a relatively small scale and would be consistent with growth expectations for LADWP's service area. Additionally, LADWP reports that renewable sources made up 21% of its electricity provided to consumers in 2015[12]. Furthermore, the proposed project, along with other future development projects, would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as required. Accordingly, the Project's contribution to cumulative impacts related to electricity consumption would not be cumulatively considerable and, thus, would be less than significant.

Electrical infrastructure and facilities are typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. As described in LADWP's 2016 Power Integrated Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards. LADWP has indicated that the Power Integrated Resource Plan incorporates the estimated electricity requirement for the Project. The Power Integrated Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. LADWP reports that Development projects within the LADWP service area would also be anticipated to incorporate site- specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. As such, the Project's contribution to cumulative impacts with respect to electricity infrastructure would not be cumulatively considerable and, thus, would be less than significant.

Buildout of the Project and related projects in SoCalGas' service area is expected to increase natural gas consumption during project construction and operation and, thus, cumulatively increase the need for natural gas supplies and infrastructure capacity. Based on the 2016 California Gas Report, the California Energy Commission estimates natural gas consumption within SoCalGas' planning area will be approximately 4,194 million cubic feet/day in 2020.[13] Based on the Project's estimated new daily natural gas

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11 LADWP, 2016 Power Integrated Resource Plan, Appendix A, Table A-1.
12 LADWP, 2015 Green Power Annual Report, p. 4
13 California Gas and Electric Utilities, 2016 California Gas Report, p. 96.

consumption of 0.1 million cubic feet per day[14], the Project would account for approximately 0.002 percent of SoCalGas projected additional capacity for the Project's build-out year. SoCalGas' forecasts take into account projected population growth and development based on local and regional plans. Although future development projects would result in the irreversible use of natural gas resources, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SoCalGas' service area. Furthermore, the proposed project, along with other future development projects, would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Accordingly, the Project's contribution to cumulative impacts related to natural gas consumption would not be cumulatively considerable and, thus, would be less than significant.

Natural gas infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. As such, cumulative impacts with respect to natural gas infrastructure would not be cumulatively considerable and, thus, would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant impacts have been identified for water, wastewater, or energy for this Project.

[14] To be updated with demand from new source.

EXHIBIT 1

City of Los Angeles

Los Angeles Department of Water and Power - Water System

EXHIBIT 1: LADWP IFFAR RESULTS

INFORMATION OF FIRE FLOW AVAILABILITY

Water Service Map No.: W116-198 & W118-198

LAFD Fire Flow Requirement: 6,000 GPM from four adjacent hydrants

LAFD Signature:

Date Signed:

Applicant: Mary Creel

Company Name: KPFF Consulting Engineers

Address: 6080 Center Drive Suite 700 Los Angeles, CA 90045

Telephone: (310)665-2800

Email Address: mary.creel@kpff.com

	F- 5902	F- 5677	F-
Location:	Bill Robertson Lane (530' North of 39th St CL)	Bill Robertson Lane (770' South of 39th St CL)	
Distance from Neareast Pipe Location (feet):	5.5 ft.	11.5 ft.	
Hydrant Size:	2 1/2 S	2 1/2 X 4D	
Water Main Size (in):	4"	8"	
Static Pressure (psi):		92	
Residual Pressure (psi):		71	
Flow at 20 psi (gpm):		2000	

RECEIVED
NOV 16 2016

NOTE: Data obtained from hydraulic analysis using peak hour.

Remarks: ECMR No. W20161116011

This Fire Flow Availability Request is for the same project the requested fire hydrants on ECMR No. W20161110007.

Fire hydrants F-5677, F-5894, and F-5895 were flow together @ 2000 GPM EA = 6000 GPM F

Water Purveyor: **Los Angeles Department of Water & Power** *Date:* 11-18-2016

Signtature: *Title:* Civil Engineer Associate

Requests must be made by submitting this completed application, along with a $215.00 check payable to:

"Los Angeles Department of Water and Power", and mailed to:

Los Angeles Department of Water and Power
Distribution Engineering Section - Water
Attn: Business Arrangements
P.O. Box 51111 - Room 1425
Los Angeles, CA 90051-5700

REVISED 12-21-2016

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**

City of Los Angeles
Los Angeles Department of Water and Power - Water System

INFORMATION OF FIRE FLOW AVAILABILITY

Water Service Map No.: W116-198 & W118-198

LAFD Fire Flow Requirement: 6,000 GPM from four adjacent hydrants

LAFD Signature: _____

Date Signed: _____

Applicant: Mary Creel

Company Name: KPFF Consulting Engineers

Address: 6080 Center Drive Suite 700 Los Angeles, CA 90045

Telephone: (310)665-2800

Email Address: mary.creel@kpff.com

	F- 5902	F- 5677	F- 5895	F- 5894
Location:	Bill Robertson Lane (530' North of 39th St Ct)	Bill Robertson Lane (770' South of 39th St CL)	Vermont Ave (40' South of 39th St CL)	Vermont Ave (535' South of 39th St CL)
Distance from Neareast Pipe Location (feet):	5.5 ft.	11.5 ft.	7.5 ft.	11 ft.
Hydrant Size:	2 1/2 S	2 1/2 X 4D	4D	4D
Water Main Size (in):	4"	8"	12"	12"
Static Pressure (psi):			93	92
Residual Pressure (psi):			72	72
Flow at 20 psi (gpm):			2000	2000

NOTE: Data obtained from hydraulic analysis using peak hour.

RECEIVED
NOV 07 2016

ECMR No. W2016111 0007

Remarks:

Fire hydrants F-5677, F-5894 and F-5895 were flow together.
@ 2000 GPM EA = 6000 GPM
#

Water Purveyor: **Los Angeles Department of Water & Power** *Date:* _____

Signtature: _____ *Title:* _____

Requests must be made by submitting this completed application, along with a $215.00 check payable to:
"Los Angeles Department of Water and Power", and mailed to:
Los Angeles Department of Water and Power
Distribution Engineering Section - Water
Attn: Business Arrangements
P.O. Box 51111 - Room 1425
Los Angeles, CA 90051-5700

REVISED
12-21-2016

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**

EXHIBIT 2

City of Los Angeles

Los Angeles Department of Water and Power - Water System

EXHIBIT 2: CITY OF LA SAR RESULTS

SAR NUMBER **56324**

Fire Service Pressure Flow Report

SERVICE NUMBER **621675**

For: **3800 S VERMONT AVE** Approved Date: **11-8-2016**

Proposed Service **10 INCH** off of the

12 inch main in **VERMONT AV** on the **EAST** side approximately

140 feet **NORTH** of **NORTH** of **39 ST** The System maximum pressure is

93 psi based on street curb elevation of **172** feet above sea level at this location.

The distance from the DWP street main to the property line is **57** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	74				
1160	73				
1685	72				
2095	71				
2450	70				
2765	69				
3050	68				
3315	67				
3560	66				
3795	65				
4015	64				
4230	63				
4430	62				
4630	61				
4815	60				
5000	59				

These values are subject to change due to changes in system facilities or demands.

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

Notes: OK to sell combo (10"FS W/8"DS)

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 11-08-16. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **CENTRAL (213) 367-1216**

AIDA FITTON	AIDA FITTON	118-198
Prepared by	**Approved by**	**Water Service Map**

EXHIBIT 3

City of Los Angeles
Bureau of Engineering

Sewer Capacity Availability Request (SCAR)

EXHIBIT 3: CITY OF LA SCAR RESULTS

To: Bureau of Sanitation
The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation.

Job Address:	**3800 S Vermont Ave**	Sanitation Scar ID:	**60-3521-0217**
Date Submitted	02/21/2017	Request Will Serve Letter?	Yes
BOE District:	Central District		
Applicant:	Mary Creel, KPFF		
Address:	6080 Center Dr. Suite 700	City :	Los Angeles
State:	CA	Zip:	90045
Phone:	310-665-2800	Fax:	
Email:	mary.creel@kpff.com	BPA No.	pending
S-Map:	536	Wye Map:	4279-2, 4279-3

SIMM Map - Maintenance Hole Locations

No.	Street Name	U/S MH	D/S MH	Diam. (in)	Approved Flow %	Notes
1	Bill Robertson Lane	53608148	53608149	15	20.00	
2	Bill Robertson Lane	53608149	53608150	15	20.00	
3	Vermont Ave	53608077	53608090	8	20.00	
4	Vermont Ave	53608119	53608103	8	20.00	
5	Bill Robertson Lane	53608122	53608131	8	20.00	

Proposed Facility Description

No.	Proposed Use Description	Sewage Generation (GPD)	Unit	Qty	GPD
1	MUSEUM: ALL AREA	30	KGSF	193,615	5,808
2	RETAIL AREA (LESS THAN 100,000 SF)	25	KGSF	2,973	74
3	THEATER: CINEMA	3	SEAT	600	1,800
4	RESTAURANT: FULL SERVICE INDOOR SEAT	30	SEAT	184	5,520
5	BANQUET ROOM/BALLROOM	350	KGSF	9,433	3,302
6	MUSEUM: OFFICE OVER 15%	120	KGSF	11,946	1,434
				Proposed Total Flow (gpd):	**17,938**

Remarks: 1] Approved for the maximum capacity of 17,938 GPD (12.46 gpm). 2] IWMD Permit required. 3] Discharge as indicated on SCAR form.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

Date Processed:	03/06/2017	Expires On:	09/02/2017

Scar Request Number: 1660

Processed by:	Eduardo Perez Bureau of Sanitation Phone: 323-342-6207 Sanitation Status: Approved Reviewed by: Yvainne Valenzuela on 03/03/2017	Submitted by:	AVALYN KAMACHI Bureau of Engineering Central District Phone: 213-482-7030

Fees Collected	No	SCAR FEE (W:37 / QC:704)	$1,430.00
Date Collected		SCAR Status:	**Completed**

Scar Request Number: 1660

BOARD OF PUBLIC WORKS MEMBERS
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ERIC GARCETTI
MAYOR

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

GARY LEE MOORE, PE, ENV SP
CITY ENGINEER

1149 S BROADWAY, SUITE 700
LOS ANGELES, CA 90015-2213

http://eng.lacity.org

03/06/2017

MARY CREEL, KPFF
6080 CENTER DR. SUITE 700
LOS ANGELES, CA, 90045

Dear Mary Creel, KPFF,

SEWER AVAILABILITY: 3800 S Vermont Ave

The Bureau of Sanitation has reviewed your request of 02/21/2017 for sewer availability at **3800 S VERMONT AVE**. Based on their analysis, it has been determined on 03/06/2017 that there is capacity available to handle the anticipated discharge from your proposed project(s) as indicated in the attached copy of the Sewer Capacity Availability Request (SCAR) .

This determination is valid for 180 days from the date shown on the Sewer Capacity Availability request (SCAR) approved by the Bureau of Sanitation.

While there is hydraulic capacity available in the local sewer system at this time, availability of sewer treatment capacity will be determined at the Bureau of Engineering Public Counter upon presentation of this letter. A Sewer Connection Permit may also be obtained at the same counter provided treatment capacity is available at the time of application.

A Sewerage Facilities Charge is due on all new buildings constructed within the City. The amount of this charge will be determined when application is made for your building permit and the Bureau of Engineering has the opportunity to review the building plans. To facilitate this determination a preliminary set of plans should be submitted to Bureau of Engineering District Office, Public Counter.

Provision for a clean out structure and/or a sewer trap satisfactory to the Department of Building and Safety may be required as part of the sewer connection permit.

Sincerely,

AVALYN KAMACHI
CIVIL ENGINEERING ASSOCIATE III
Central District, Bureau of Engineering

Scar Request Number: 1660

EXHIBIT 4

EXHIBIT 4: LADWP APPROVED WILL-SERVE LETTER

Los Angeles Department of Water & Power

ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, *Secretary*

MARCIE L. EDWARDS
General Manager

October 26, 2016

Ms. Mary Creel
kpff
6080 Center Drive, Suite 700
Los Angeles, CA 90045

Subject: 3800 S. Vermont Avenue
KPFF Job #1600369

Dear Ms. Creel:

This is in response to your submittal regarding electric service for the proposed project located at the above address.

Electric Service is available and will be provided in accordance with the Los Angeles Department of Water and Power's (Department) Rules Governing Water and Electric Service. The availability of electricity is dependent upon adequate generating capacity and adequate fuel supplies. The estimated power requirement for this proposed project is part of the total load growth forecast for the City of Los Angeles and has been taken into account in the planned growth of the City's power system.

If you have any questions regarding this matter, please contact me at telephone number (213) 367-2725.

Sincerely,

VINCENT G. ZABUKOVEC
Engineer of Customer Station Design

VGZ:sl

C/enc:
ENGR: Mr. Vincent G. Zabukovec
FileNet

111 N. Hope Street, Los Angeles, California 90012-2607 *Mailing address:* Box 51111, Los Angeles, CA 90051-5700
Telephone: (213) 367-4211 www.LADWP.com

EXHIBIT 5

EXHIBIT 5: SOCALGAS APPROVED WILL-SERVE LETTER

Southern California Gas Company

A Sempra Energy utility®

March 17, 2017

Attn: Mary Creel
KPFF
6080 Center Dr., Suite 700
Los Angeles, CA 90045

RE: Will Serve Letter Request for – Job ID# 43-2016-11-00004: KPFF Job # 1600369; 3800 S. Vermont St., Los Angeles, CA 90037

Dear Ms. Creel:

Thank you for inquiring about the availability of natural gas service for your project. We are pleased to inform you that Southern California Gas Company (SoCalGas) has facilities in the area where the above named project is being proposed. The service would be in accordance with SoCalGas' policies and extension rules on file with the California Public Utilities Commission (Commission) at the time contractual arrangements are made.

This letter should not be considered a contractual commitment to serve the proposed project, and is only provided for informational purposes only. The availability of natural gas service is based upon natural gas supply conditions and is subject to changes in law or regulation. As a public utility, SoCalGas is under the jurisdiction of the Commission and certain federal regulatory agencies, and gas service will be provided in accordance with the rules and regulations in effect at the time service is provided. Natural gas service is also subject to environmental regulations, which could affect the construction of a main or service line extension (for example, if hazardous wastes were encountered in the process of installing the line). Applicable regulations will be determined once a contract with SoCalGas is executed.

If you need assistance choosing the appropriate gas equipment for your project, or would like to discuss the most effective applications of energy efficiency techniques, please contact our area Service Center at 800-427-2200.

Thank you again for choosing clean, reliable, and safe natural gas, your best energy value.

Sincerely,

Zakee Singleton

Planning Associate

Compton Headquarters

EXHIBIT 6

EXHIBIT 6: MEP CORRESPONDENCE - ELECTRICAL

Charlotte Chan

From: Stephen Bakin <Stephen.Bakin@atce.com>
Sent: Tuesday, March 28, 2017 11:17 AM
To: Brian C. League; Charlotte Chan; Zoheir Guemmat; TG Davallou; Diarmuid Hartley; Pam Brandon; Michele Hines; Siegel, Michael
Cc: Mary Creel; Sean Timmons
Subject: RE: LMNA Data needs for CEQA - MEP

Hi Brian/Charlotte,

The conservative value of kW is approx. **5,030 kW**. This is full connected load kW and assumes 0.95 power factor.

Thanks,

Stephen

Stephen Bakin, PE, LC
Principal
AlfaTech
Direct: 415.403.3062
Mobile: 415.730.1250

From: Brian C. League [mailto:brian.league@usc.edu]
Sent: Tuesday, March 28, 2017 11:09 AM
To: Charlotte Chan <Charlotte.Chan@kpff.com>; Stephen Bakin <Stephen.Bakin@atce.com>; Zoheir Guemmat <Zoheir.Guemmat@atce.com>; TG Davallou <TG.Davallou@atce.com>; Diarmuid Hartley <Diarmuid.Hartley@atce.com>; Pam Brandon <Pam.Brandon@atce.com>; Michele Hines <michele.hines@skywalkerranch.com>; Siegel, Michael <Michael.Siegel@stantec.com>
Cc: Mary Creel <mary.creel@kpff.com>; Sean Timmons <Sean.Timmons@atce.com>
Subject: RE: LMNA Data needs for CEQA - MEP

Can we take an conservative approach and assume the higher number?

Brian C. League
Executive Director, Real Estate Development
Real Estate & Asset Management
University of Southern California
3335 S. Figueroa St., Unit G | UGW 110
Los Angeles, California 90089-7271

Office: (213) 740-5467 | Fax: (213) 821-3073
email: brian.league@usc.edu

Utility Power Service

The main Los Angeles Dept. of Water and Power (LADWP) substation is located at 38th Street and Vermont Avenue, which is to the northwest of the project site. From this substation a 34 kV underground feeder will be bought along the east side of Vermont Avenue to a new underground utility vault at the West side of the building, in proximity to the building's main electrical room. The utility vault will have access from the parking level. The vault will contain two LADWP 34 kV – 480 V transformers and primary switches. Two sets of 480 Volt service entrance conduits will be routed underground from this vault location to the building's main switchboards located in the two main electrical rooms on each side of the building.

Utility Gas Service

Museum:
Domestic hot water : two water heaters x 200 MBH = 400 MBH
Space heating : the space heating is provided via geothermal system with heat recovery (heating / cooling) chillers
Total : 400 MBH (separate meter)

Kitchen load:
Kitchen equipment : 3000 MBH
Kitchen domestic hot water : Two water heaters x 200 MBH = 400 MBH
Total : 3400 MBH (separate meter)

Stephen Bakin, PE, LC
Principal
AlfaTech
Direct: 415.403.3062
Mobile: 415.730.1250

From: Charlotte Chan [mailto:Charlotte.Chan@kpff.com]
Sent: Monday, March 20, 2017 4:20 PM
To: Sean Timmons <Sean.Timmons@atce.com>
Cc: Mary Creel <mary.creel@kpff.com>; Stephen Bakin <Stephen.Bakin@atce.com>; TG Davallou <TG.Davallou@atce.com>
Subject: RE: LMNA Data needs for CEQA - MEP

Hi Sean,

Any update on this?

Thanks,

Charlotte Chan, PE

O 213.418.0201 D 213.266.5270
Charlotte.Chan@kpff.com
700 South Flower Street, Suite 2100
Los Angeles, CA 90017
Please consider the environment - Think before you print!

From: Sean Timmons [mailto:Sean.Timmons@atce.com]
Sent: Thursday, March 16, 2017 5:51 PM
To: Charlotte Chan
Cc: Mary Creel; Stephen Bakin; TG Davallou
Subject: Re: LMNA Data needs for CEQA - MEP

Hi Charlotte:

Hi Sean,

Please see below for electrical overview:

The electrical distribution system is of the two-source primary selective with secondary radial distribution. The main switchgear will be located in the main electrical room (at ground level) and serve two indoor-located secondary unit substations; one on each side of the building. The Substation 1 will be located in the main electrical room and Substation 2 will be located in a separate electrical room on the opposite side of the building (also on the ground floor level). Each of the two secondary unit substations will have a 2,000 KVA transformer and a 3,000 Amp 480 V distribution section. Substation 1 will serve the loads on the west side of the building. Substation 2 will serve the loads in the east side of the building.

Stephen Bakin, PE, LC
Principal
AlfaTech
Direct: 415.403.3062
Mobile: 415.730.1250

From: Sean Timmons
Sent: Monday, November 28, 2016 3:03 PM
To: TG Davallou <TG.Davallou@atce.com>; Stephen Bakin <Stephen.Bakin@atce.com>
Cc: Paula Venegas <Paula.Venegas@atce.com>
Subject: LMNA Data needs for CEQA

TG and Stephen:

Can you please send me a paragraph on the MEP systems for LA per request below by this Wednesday?

Thanks

Sean A. Timmons, P.E., MBA, B.Eng(H)
Executive Vice President + Partner

ALFATECH TIMMONS

AlfaTech
One Post Street, Suite 2200
San Francisco, CA 94104
Direct: 415.403.3025
Mobile: 415.987.3337
sean.timmons@atce.com
www.atce.com

Please consider the environment before printing this e-mail

From: Sean Timmons
Sent: Wednesday, November 23, 2016 8:32 AM
To: 'Raj Desai' <raj.desai@lucasmuseum.org>; Charlotte Chan <Charlotte.Chan@kpff.com>
Cc: Brian C. League <brian.league@usc.edu>; Stephanie Eyestone-Jones (s.eyestone@eyestoneeir.com) <s.eyestone@eyestoneeir.com>; Reza Rezaian <reza.rezaian@kpff.com>; Mary Creel <mary.creel@kpff.com>;

EXHIBIT 7

Utility Power Service

The main Los Angeles Dept. of Water and Power (LADWP) substation is located at 38th Street and Vermont Avenue, which is to the northwest of the project site. From this substation a 34 kV underground feeder will be bought along the east side of Vermont Avenue to a new underground utility vault at the West side of the building, in proximity to the building's main electrical room. The utility vault will have access from the parking level. The vault will contain two LADWP 34 kV – 480 V transformers and primary switches. Two sets of 480 Volt service entrance conduits will be routed underground from this vault location to the building's main switchboards located in the two main electrical rooms on each side of the building.

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Domestic hot water : two water heaters x 200 MBH = 400 MBH
Space heating : the space heating is provided via geothermal system with heat recovery (heating / cooling) chillers
Total : 400 MBH (separate meter)

Kitchen load:
Kitchen equipment : 3000 MBH
Kitchen domestic hot water : Two water heaters x 200 MBH = 400 MBH
Total : 3400 MBH (separate meter)

Stephen Bakin, PE, LC
Principal
AlfaTech
Direct: 415.403.3062
Mobile: 415.730.1250

From: Charlotte Chan [mailto:Charlotte.Chan@kpff.com]
Sent: Monday, March 20, 2017 4:20 PM
To: Sean Timmons <Sean.Timmons@atce.com>
Cc: Mary Creel <mary.creel@kpff.com>; Stephen Bakin <Stephen.Bakin@atce.com>; TG Davallou <TG.Davallou@atce.com>
Subject: RE: LMNA Data needs for CEQA - MEP

Hi Sean,

Any update on this?

Thanks,

Charlotte Chan, PE

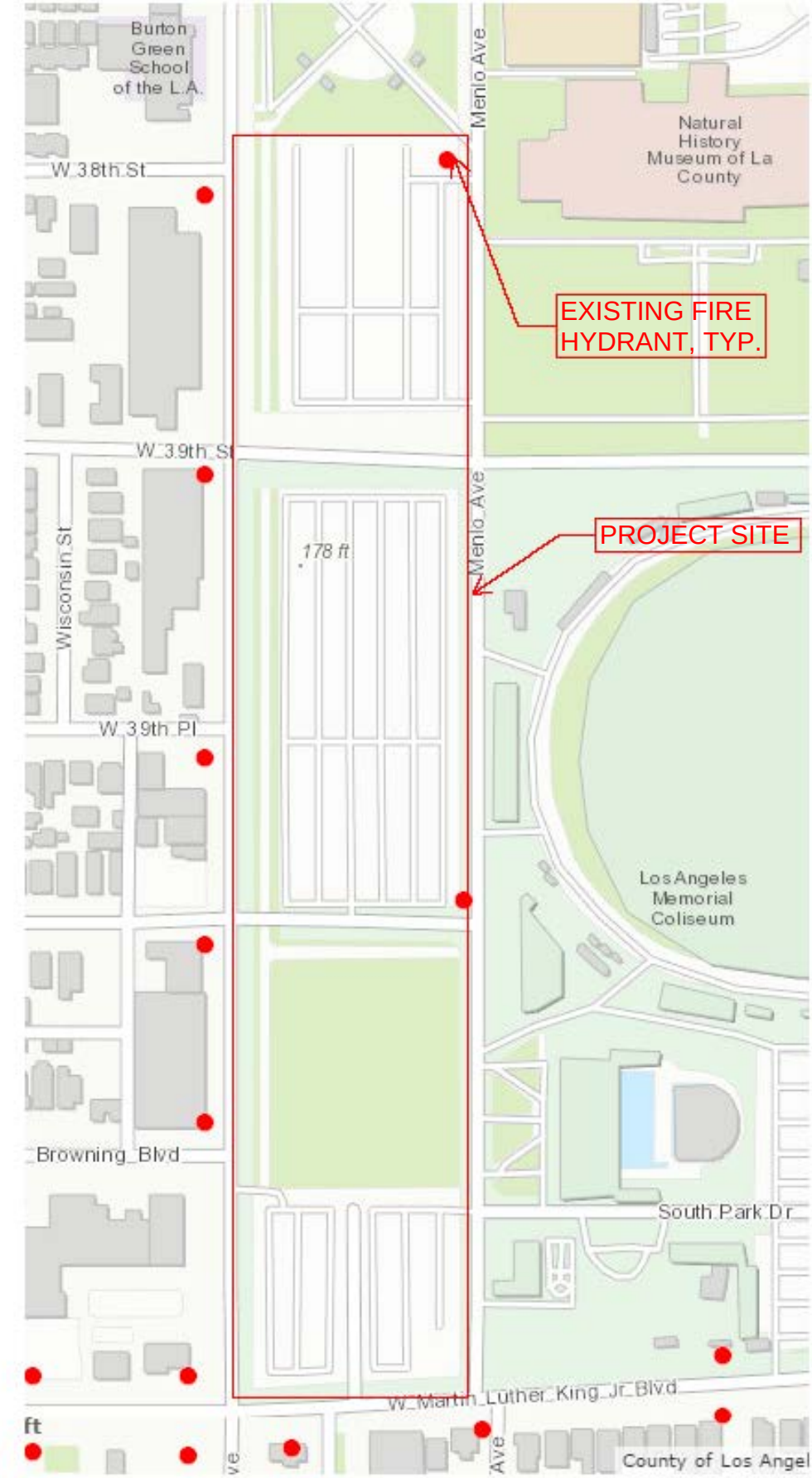
O 213.418.0201 D 213.266.5270
Charlotte.Chan@kpff.com
700 South Flower Street, Suite 2100
Los Angeles, CA 90017
Please consider the environment - Think before you print!

From: Sean Timmons [mailto:Sean.Timmons@atce.com]
Sent: Thursday, March 16, 2017 5:51 PM
To: Charlotte Chan
Cc: Mary Creel; Stephen Bakin; TG Davallou
Subject: Re: LMNA Data needs for CEQA - MEP

Hi Charlotte:

FIGURE 1

FIGURE 1: EXISTING FIRE HYDRANT MAP



http://www.arcgis.com/home/webmap/viewer.html?webmap=750fb02425724ab49a6e2c04fd6534bf

Appendix G

Traffic Study

Appendix G.1

Los Angeles Department of Transportation Assessment Letter

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

3800 S. Vermont Av
DOT Case No. CEN 16-44979

Date: March 30, 2017

To: Karen Hoo, City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ANALYSIS FOR THE PROPOSED LUCAS MUSEUM OF NARRATIVE ART LOCATED AT 3800 SOUTH VERMONT AVENUE**

The Department of Transportation (DOT) has reviewed the transportation study prepared by Gibson Transportation Consulting, dated March 2017, for the proposed Lucas Museum of Narrative Art located at 3800 South Vermont Avenue. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impact criteria[1], the traffic study included the analysis of twenty intersections and determined that none of the study intersections would be significantly impacted by project-related traffic. The analysis supports an addendum to the 2003 Draft Environmental Impact Report for the Los Angeles Memorial Coliseum Renovation Project. The results of the traffic impact analysis, which adequately evaluate the project's traffic impacts on the surrounding community, are summarized in **Attachment 1**.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to construct a 299,717 square foot museum that will include art collections, films, and exhibitions that feature art, moving images, painting, illustrations, photography, animation and digital art. The museum will have ancillary uses that include sit-down restaurant, café, museum store, theater, several lecture halls, classrooms, and event spaces. The project will provide 1,025 parking spaces in a subterranean Museum Parking Garage. The project proposes to vacate 39th Street between Vermont Avenue and Bill Robertson Lane and the alley running north-south within the project. The vacations would be reviewed per the Bureau of Engineering's (BOE's) street vacation process. Vehicular access will be provided via two full service driveways on Bill Robertson Lane and a full access driveway on Vermont Avenue at Leighton Avenue. The project proposes to signalize the new driveway on Vermont Avenue. A new signal would need the approval of DOT's Central District Office. The project is expected to be completed by 2021.

---

[1] Per DOT's Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

B. Trip Generation

The project is estimated to generate a net increase of approximately 1,633 daily trips, 245 trips during the p.m. peak hour and 408 trips during the Saturday midweek. The trip generation estimates are based on the mode splits and hourly arrival and departure patterns for museums in the Los Angeles area. DOT concurs with this method of estimating the project trips and the finding that this results in a higher trip generation than the ITE rates.

PROJECT REQUIREMENTS

A. Construction Impacts

The study included an analysis of the potential trip generation of construction traffic and potential impacts. No temporary impacts due to construction were found. DOT concurs with the study and recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

B. Highway Dedication and Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035 which represents the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **Vermont Avenue** has been designated an Avenue I (Secondary Highway), which would require a 35-foot half-width roadway within a 50-foot half-width right-of-way. The project applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements

The indicated that 1,025 parking spaces will be provided by the project. The applicant should check with the Department of Building and Safety on the number of code-required parking spaces needed for the project.

D. Driveway Access and Circulation

The conceptual site plan for the project submitted with the study dated August 25, 2016 (**Attachment 2**) demonstrates that vehicular access to the project site will be provided by three existing driveways on the project site. The conceptual site plan is acceptable to DOT. However, the review of this study does not constitute approval of the dimensions for any new proposed driveways. Any new proposed driveways require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT for driveway width and internal circulation requirements prior to the commencement of building or parking layout design.

E. Development Review Fees
An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. Ordinance No. 183270 identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact me at (213) 972-8482.

Attachments

J:\Letters\2017\CEN 16-44979_3800 Vermont Av Lucas Museum ts ltr.docx

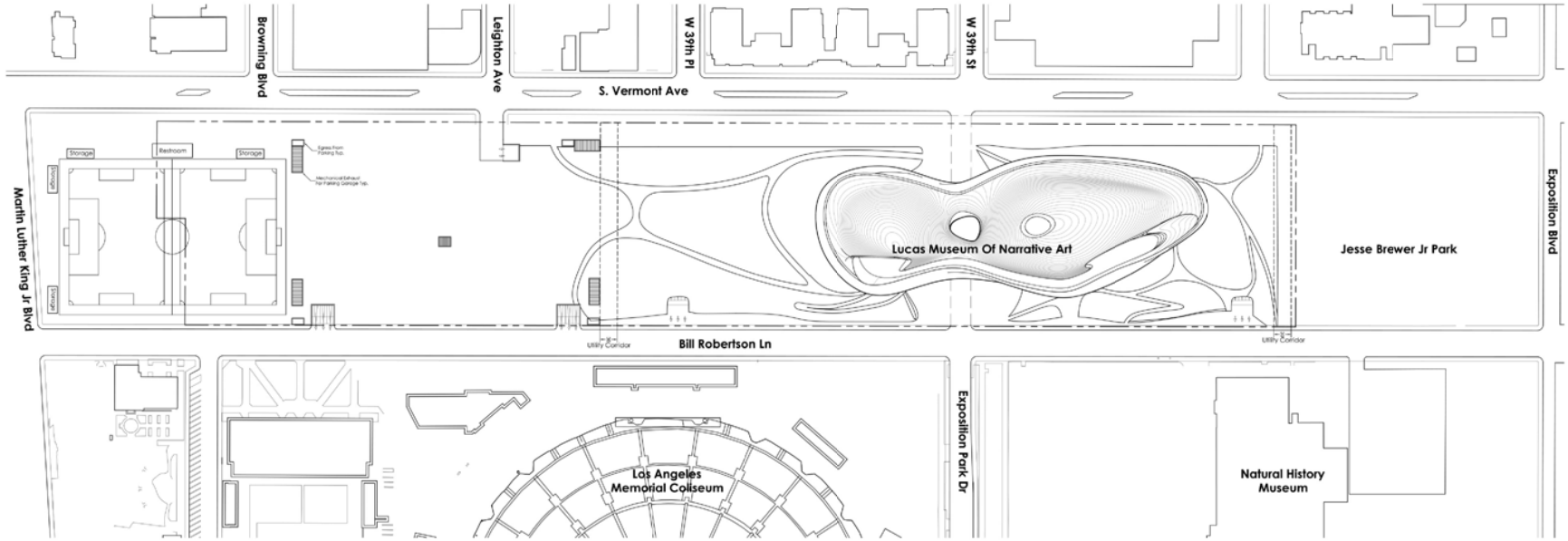
c: Rob Katherman, Council District No. 9
Heather Bleemers, City Planning
Carl Mills, BOE Development Services
Mehrdad Moshksar, Central District, DOT
Taimour Tanavoli, Case Management Office, DOT
Jonathan Chambers, Gibson Transportation Consulting

Attachment 1

TABLE 12
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
INTERSECTION LEVELS OF SERVICE AND SIGNIFICANT IMPACTS

No	Intersection	Peak Hour	Future Without Project		Future with Project			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact
1.	Normandie Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.773 0.674	C B	0.779 0.683	C B	0.006 0.009	NO NO
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.763 0.675	C B	0.765 0.678	C B	0.002 0.003	NO NO
3.	Vermont Avenue & Jefferson Boulevard	Wkdy Eve Sat Mid	0.840 0.579	D A	0.843 0.583	D A	0.003 0.004	NO NO
4.	Vermont Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.827 0.685	D B	0.835 0.714	D C	0.008 0.029	NO NO
5.	Vermont Avenue & 39th Street	Wkdy Eve Sat Mid	0.455 0.387	A A	0.429 0.344	A A	-0.026 -0.043	NO NO
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.824 0.743	D C	0.827 0.750	D C	0.003 0.007	NO NO
7.	Bill Robertson Lane & Exposition Boulevard	Wkdy Eve Sat Mid	0.391 0.428	A A	0.485 0.601	A B	0.094 0.173	NO NO
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.624 0.556	B A	0.667 0.607	B B	0.043 0.051	NO NO
9.	Hoover Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.563 0.505	A A	0.568 0.512	A A	0.005 0.007	NO NO
10.	Figueroa Street & Jefferson Boulevard	Wkdy Eve Sat Mid	0.893 0.561	D A	0.895 0.563	D A	0.002 0.002	NO NO
11.	Figueroa Street & Exposition Boulevard / 37th Street	Wkdy Eve Sat Mid	0.874 0.604	D B	0.885 0.628	D B	0.011 0.024	NO NO
12.	Figueroa Street & Flower Street	Wkdy Eve Sat Mid	0.617 0.462	B A	0.624 0.473	B A	0.007 0.011	NO NO
13.	Figueroa Street & 39th Street	Wkdy Eve Sat Mid	0.772 0.576	C A	0.773 0.580	C A	0.001 0.004	NO NO
14.	Figueroa Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	1.017 0.874	F D	1.025 0.887	F D	0.008 0.013	NO NO
15.	Flower Street / I-110 SB Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	0.465 0.287	A A	0.472 0.307	A A	0.007 0.020	NO NO
16.	Flower Street & 37th Street / I-110 SB On-ramp	Wkdy Eve Sat Mid	0.555 0.440	A A	0.565 0.455	A A	0.010 0.015	NO NO
17.	Hope Street / I-110 NB Off-ramp & 37th Street	Wkdy Eve Sat Mid	0.469 0.271	A A	0.494 0.308	A A	0.025 0.037	NO NO
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	0.691 0.215	B A	0.715 0.256	C A	0.024 0.041	NO NO
19.	I-110 SB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.729 0.599	C A	0.735 0.621	C B	0.006 0.022	NO NO
20.	Hill Street / I-110 NB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.888 0.616	D B	0.888 0.624	D B	0.000 0.008	NO NO

Gibson transportation consulting, inc.



N
Not to Scale

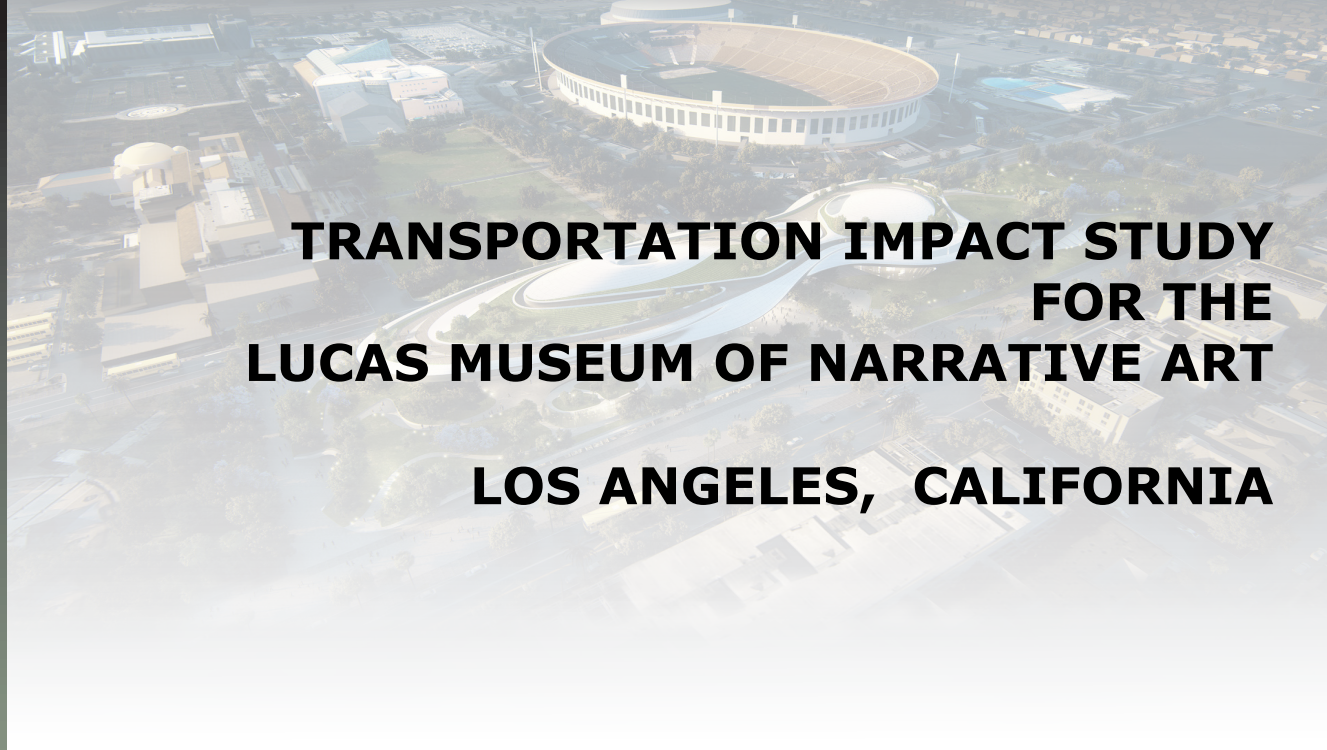
Source: MAD Architects and Stantec Architecture, February 2017.

MODIFIED PROJECT SITE PLAN

FIGURE 1

Appendix G.2

Traffic Study



TRANSPORTATION IMPACT STUDY FOR THE LUCAS MUSEUM OF NARRATIVE ART

LOS ANGELES, CALIFORNIA

MARCH 2017

PREPARED FOR

UNIVERSITY OF SOUTHERN CALIFORNIA

on behalf of

LUCAS MUSEUM OF NARRATIVE ART

PREPARED BY

Gibson transportation consulting, inc.

TRANSPORTATION IMPACT STUDY
FOR THE
LUCAS MUSEUM OF NARRATIVE ART

LOS ANGELES, CALIFORNIA

March 2017

Prepared for:

UNIVERSITY OF SOUTHERN CALIFORNIA

on behalf of

LUCAS MUSEUM OF NARRATIVE ART

Prepared by:

GIBSON TRANSPORTATION CONSULTING, INC.
555 W. 5th Street, Suite 3375
Los Angeles, California 90013
(213) 683-0088

Ref: J1493

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Chapter 1
Introduction

This study presents the traffic impact analysis for the proposed Lucas Museum of Narrative Art and associated parking structures and related improvements located at 3800 Vermont Avenue in Exposition Park south of downtown Los Angeles (the City). It is intended to support an addendum to *Draft Environmental Impact Report for the Los Angeles Memorial Coliseum Renovation Project* (Christopher A. Joseph & Associates, September 5, 2003) (2003 EIR). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

MODIFIED PROJECT DESCRIPTION

The Lucas Museum Foundation, with the University of Southern California (USC) as its Applicant, proposes to modify the Los Angeles Coliseum Renovation Project to accommodate the Lucas Museum of Narrative Art (LMNA) and associated parking structures and related improvements (the Modified Project). The LMNA would be a one-of-a-kind gathering place to experience art collections, films, and exhibitions dedicated to visual storytelling and the evolution of art and moving images in a setting focused on narrative painting, illustration, photography, film, animation, and digital art. The LMNA would include numerous amenities such as a sit-down restaurant, state-of-the-art cinematic theaters, museum store, casual café, lecture halls of various sizes, digital classrooms, video conferencing for guest lectures and workshops, a drop-in library, several spaces available for event rental, and production quality editing classrooms. The LMNA's design strengthens the purpose of Exposition Park as a center of education, culture, and inspiration for Los Angeles residents, the students of the neighboring USC campus, and beyond.

The Modified Project consists of two distinct parts. The LMNA Site, generally bounded by Exposition Boulevard to the north, Bill Robertson Lane to the east, Leighton Avenue to the

south, and Vermont Avenue to the east, would house the five-level, 299,717 square foot (sf) LMNA and a two-level subterranean parking garage (Museum Parking Garage). This component would also include landscaping and other improvements to Jesse Brewer Park that would not generate any additional traffic. The LMNA Site is currently developed with two surface parking lots (Lots 2 and 3) totaling 1,297 spaces.

The Replacement Parking Site, immediately to the south of the LMNA Site and generally bounded by Leighton Avenue to the north, Bill Robertson Lane to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west, would consist of a City-operated soccer field (relocated from the northern boundary to the southern boundary of the Replacement Parking Site) and a three-level subterranean parking garage (Replacement Parking Garage). The Replacement Parking Site currently consists of Lot 1 with 394 surface parking spaces and the City-operated soccer field. Collectively, the LMNA Site and the Replacement Parking Site are referred to as the Modified Project Site. The conceptual Modified Project Site plan is shown in Figure 1.

The Museum Parking Garage would provide a total of up to 1,025 spaces, including 600 to satisfy the LMNA parking requirement and the remainder for the use of the adjacent Natural History Museum (on the east side of Bill Robertson Lane). Two full-access driveways would be provided to Bill Robertson Lane – one north and one south of 39th Street. Service access would also be from Bill Robertson Lane. The Replacement Parking Garage would provide up to 1,400 spaces. It also would provide two full-access driveways to Bill Robertson Lane along with a full-access driveway to Vermont Avenue at Leighton Avenue. A new traffic signal would be installed at Leighton Avenue as part of the Modified Project. In total, the Modified Project would displace 1,691 existing parking spaces and construct up to 2,425 new parking spaces, for a net increase of up to 734 spaces within the Modified Project Site.

The Modified Project also includes the vacation and closure of 39th Street between Vermont Avenue and Bill Robertson Lane and vacation of the “paper” alley (i.e., a dedicated City right-of-way that is neither improved nor used as an alley) running north and south within the Modified Project Site. 39th Street would continue to provide public access between Vermont Avenue and

Bill Robertson Lane during major events at Exposition Park[1], but would generally be closed to public vehicular traffic. Following the vacation, the north-south alley would become part of the Modified Project Site.

MODIFIED PROJECT LOCATION AND STUDY AREA

The Modified Project Site is located on the west end of Exposition Park, a state-owned facility that houses existing museums and sports and entertainment venues, including the Los Angeles Memorial Coliseum (Coliseum), the Natural History Museum, the California Science Center, the California African American Museum, the EXPO Center, and the under-construction Los Angeles Football Club soccer stadium. The existing museums are located on the north side of Exposition Park, with the Natural History Museum and the Coliseum directly across Bill Robertson Lane from the Modified Project Site.

Exposition Park is located approximately two miles southwest of downtown Los Angeles. It is bounded by Exposition Boulevard to the north, Figueroa Street to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the north. In addition to the museums and venues, it provides approximately 6,180 parking spaces, of which approximately 4,060 are in surface lots and 2,160 are in the California Science Center parking structure west of Figueroa Street. Access to Exposition Park is provided to and from each of the four bordering streets, with primary access on Figueroa Street at 39th Street.

To the north of Exposition Park is USC's University Park Campus on the north side of Exposition Boulevard. To the south and west are residential neighborhoods, predominantly made up of single-family homes and small apartment buildings. To the east is the Harbor Freeway (I-110) and, beyond that, light industrial uses. The Santa Monica Freeway (I-10) is located approximately 1.5 miles north.

The four streets bordering Exposition Park, along with I-110 and I-10, provide major regional access to Exposition Park and the Modified Project Site. I-110 travels to downtown Los Angeles

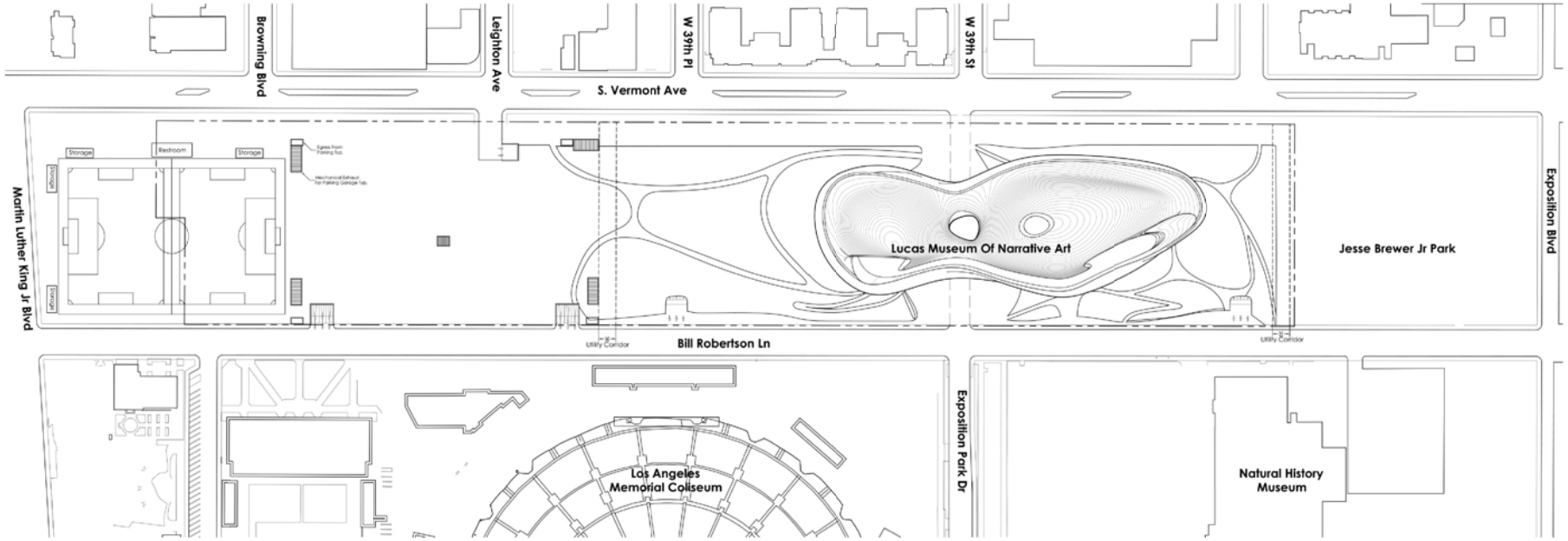
[1] LMNA would open 39th Street to public access during Exposition Park events with attendance of 25,000 or more persons, such as football games at the Coliseum. At other times, 39th Street would operate as a walking plaza or a place for school buses to drop off students visiting the LMNA.

and Pasadena to the north and to San Pedro to the south. I-10 travels to Culver City and Santa Monica to the west and to the San Gabriel Valley, the Inland Empire and beyond to the east. The Los Angeles Metropolitan Transportation Authority (Metro) Expo Line provides service between downtown Los Angeles and Santa Monica, and travels down the center of Exposition Boulevard. The Expo/Vermont Station is located at the intersection of Vermont Avenue & Exposition Boulevard, steps from the Modified Project Site. Exposition Park is also served by the Expo/USC Station located on Exposition Boulevard midway between Vermont Avenue and Figueroa Street.

As shown in Figure 2, the Modified Project's Study Area includes a geographic area approximately 1.0 miles (north-south) by 1.2 miles (east-west), bounded by Jefferson Boulevard to the north, I-110 to the east, Martin Luther King Jr. Boulevard to the south, and Normandie Avenue to the west. Detailed traffic analyses were conducted at key intersections within the Study Area.

ORGANIZATION OF REPORT

This report is divided into 13 chapters, including this introduction. Chapter 2 summarizes the previous environmental analysis conducted for Exposition Park. Chapter 3 describes the analysis methodology used in this study. Chapter 4 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 5 forecasts the Future without Project Conditions. Chapter 6 describes the procedure used to forecast Modified Project traffic volumes and distribution through the Study Area. Chapter 7 presents the intersection operating conditions and potential traffic impacts associated with construction of the Modified Project on top of Existing Conditions (year 2016). Chapter 8 presents the intersection operating conditions and potential traffic impacts associated with construction of the Modified Project on top of Future without Project Conditions (year 2021). Chapter 9 presents an analysis of Caltrans facilities. Chapter 10 presents the regional CMP analysis. Chapter 11 describes site access and circulation. Chapter 12 reviews Modified Project parking. Chapter 13 presents the impacts associated with the construction phase of the Modified Project. The Appendices contain supporting documentation and additional details of the technical analyses.

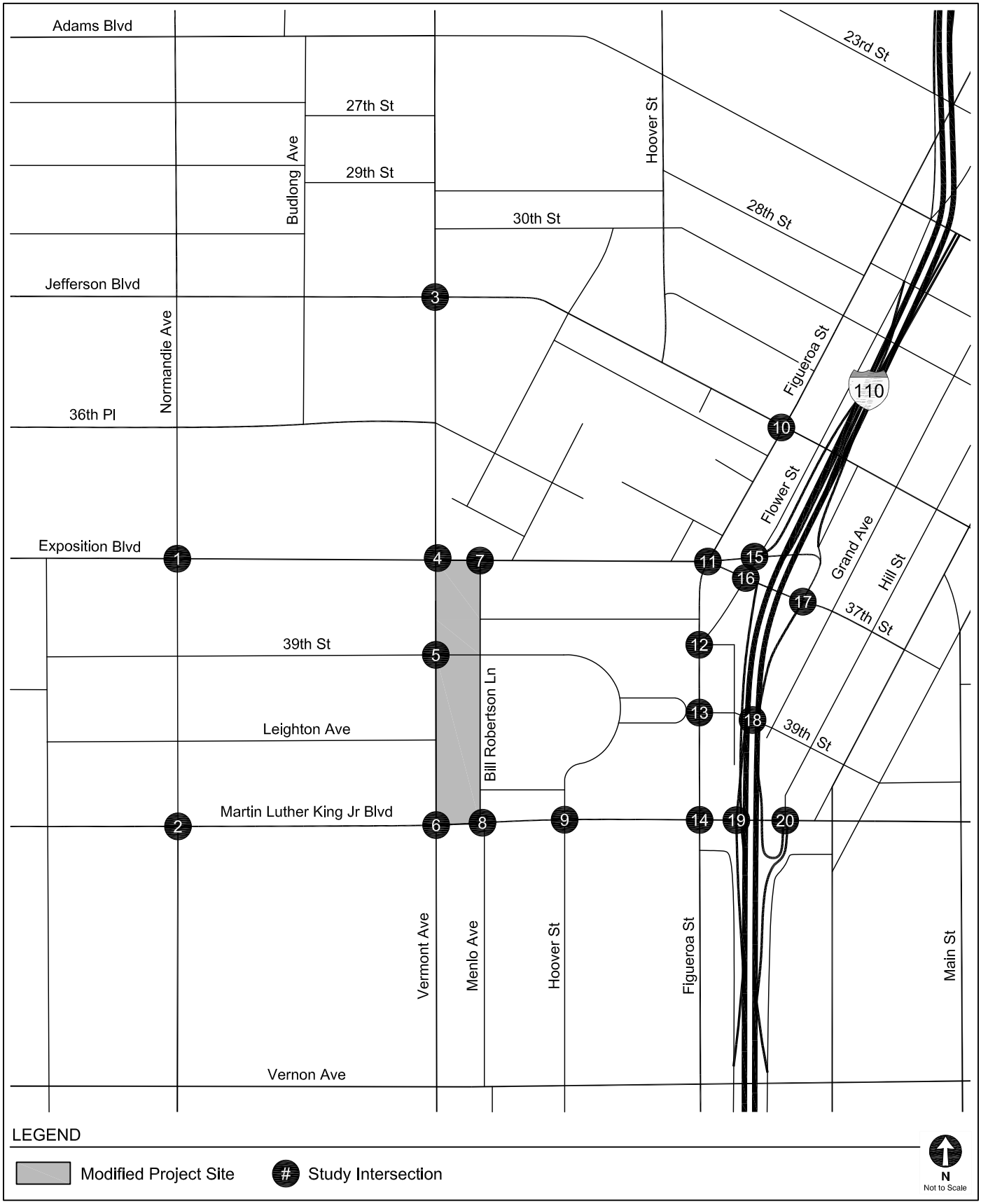


Source: MAD Architects and Stantec Architecture, February 2017.

N
Not to Scale

MODIFIED PROJECT SITE PLAN

FIGURE
1



STUDY AREA AND ANALYZED LOCATIONS

FIGURE 2

Chapter 2

Summary of 2003 EIR and 2006 Addendum

The 2003 EIR evaluated the renovation of the Coliseum, which included primarily reducing the maximum seating capacity from 92,500 seats to 78,000 seats, the addition of 200 luxury suites, and the construction of 44,000 sf of ancillary structures for retail or office use, a 19,000 sf press box, and approximately 35,000 sf of new concession-related facilities.

An Addendum to the 2003 EIR was prepared in 2006 to evaluate modifications to the renovation project analyzed in the 2003 EIR, including changes to the architectural design, the establishment of a Coliseum District Specific Plan Overlay District to govern the development and operation of the Coliseum under a proposed lease agreement between the Los Angeles Memorial Coliseum Commission (LAMCC) and the National Football League (NFL), the adoption of a signage plan, and approval of the sale and service of alcoholic beverages for on-site consumption. The 2006 Addendum also analyzed an increase in the size of the press box from 19,000 sf to 25,000 sf.

A Second Addendum to the 2003 EIR was prepared in 2016 to evaluate further renovations, including a reduction in the size of the ancillary structures from 44,000 sf to 18,000 sf and maintenance of the existing limitations on major events to 25 per year (rather than the increase called for in the 2003 EIR to accommodate an NFL schedule on top of existing event limits).

In addition, a Third Addendum was prepared and approved by the LAMCC in December, 2016. The Third Addendum addressed the replacement of two video boards with two new video boards that would be better integrated into the seating bowl of the Coliseum as well as the replacement of the center Peristyle game clock with a modern smaller integrated game clock.

The Certified EIR, as referred to herein, comprises the Draft EIR, Final EIR, and the 2006, Second, and Third Addenda to the EIR. In addition, all references hereafter to the “Approved

Project" reflect the Los Angeles Memorial Coliseum Renovation Project as evaluated in the EIR and as modified by the three addenda and other approvals.

COMPARISON OF APPROVED PROJECT TO MODIFIED PROJECT

As described in Chapter 1, the proposed Modified Project includes the construction of an approximately 300,000 sf museum with ancillary retail, theater, restaurant, and event space within Exposition Park adjacent to the Coliseum. The Modified Project would replace all surface parking within Exposition Park displaced by the LMNA in essentially the same location, along with providing parking for LMNA use. While 39th Street would be vacated between Vermont Avenue and Bill Robertson Lane, and would generally be closed to through traffic, it would be open for public access during major events at Exposition Park. A new driveway to Vermont Avenue at Leighton Avenue would provide access to the up to 1,400 space subterranean parking structure on the Replacement Parking Site, though the majority of traffic to and from that structure would access it via one of the two driveways on Bill Robertson Lane in day-to-day operations. Overall, the Modified Project would have a minimal effect on current access and parking patterns for Coliseum events as analyzed under the Approved Project.

The 2003 EIR contemplated export of 250,000 cubic yards (CY) of material during construction, though that was subsequently reduced to 37,000 CY in the 2016 Addendum. The Modified Project would export up to 600,000 CY of material, which, when added to the 37,000 CY anticipated under the Approved Project, is an increase of 387,000 CY over the 250,000 CY originally contemplated and analyzed in the 2003 EIR.

The LMNA would be ancillary to Coliseum facilities, and although it would host events from time to time, the patronage of these events would be a fraction the size of events hosted at the Coliseum. On a typical day without a major event in Exposition Park, the LMNA would generate traffic commensurate with a typical museum, as documented in Chapter 6. It is anticipated that the LMNA would experience a decrease in exclusive patronage (that is, visitors solely attending the LMNA) on days when major events occur in Exposition Park, since traffic congestion during those events can deter local visitors who have the option to come at any time.

TRAFFIC, ACCESS, AND PARKING IMPACTS IDENTIFIED IN 2003 EIR

The 2003 EIR analyzed a total of 26 intersections for significant traffic impacts under weekend pre-event conditions, weekend post-event conditions, and weekday pre-event conditions. Impacts were identified using LADOT's significant impact criteria based on the difference between non-event conditions and event conditions, as if Coliseum events were new to the area. This resulted in a very conservative analysis, since Coliseum events were already occurring and, with the Approved Project, the maximum capacity of those events would be reduced due to the seating reduction.

The weekend analysis was based entirely on traffic counts conducted on Saturday, November 30, 2002 during a USC football game with 87,944 fans in attendance. The "without Project" condition was identified based on the lowest hourly total volume between 2:00 PM and 5:00 PM at each intersection. The "pre-event peak hour" was identified based on the highest hourly total volume between 2:00 PM and 5:00 PM and the "post-event" peak hour was the hour between 8:30 PM and 9:30 PM. Impacts were identified based on the difference between the "without Project" condition and the pre-event and post-event peak hour conditions.

The weekday analysis was conducted based on projected traffic volumes for the pre-event peak hour assuming a 78,000-person stadium event. These event traffic projections were added to weekday traffic counts conducted in April 2003. The 2003 EIR identified the following significant intersection impacts for the three event conditions:

- eight intersection impacts during the weekend pre-event peak hour
- six intersection impacts during the weekend post-event peak hour
- 23 intersection impacts during the weekday pre-event peak hour

It also identified impacts during the weekday pre-event peak hour on two freeway facilities according to the criteria set forth in *2002 Congestion Management Program for Los Angeles County* (Metro, 2002) (CMP):

- I-10 freeway at Budlong Avenue
- I-110 freeway at Slauson Avenue

No parking, access, or circulation impacts were identified.

MITIGATION MEASURES IDENTIFIED IN 2003 EIR

The 2003 EIR identified elements of a traffic management plan to be implemented, in collaboration with LADOT, the Los Angeles Police Department (LAPD), California Department of Transportation (Caltrans), and the California Highway Patrol (CHP), in order to mitigate the identified significant impacts of the Approved Project. These elements included:

1. *To facilitate movement of vehicles, LAPD and LADOT staff shall have the authority to implement turn restrictions, parking prohibitions, lane closures, barriers/cones, and flexible signage. There shall be a temporary command post available on the site to control and monitor traffic conditions. The area shall be split up into zones, with an engineer assigned to each zone. These engineers would have the authority to react to situations and change restrictions if necessary.*

2. *Electronic ticketing shall replace parking guards at problem area lots and traffic signs on adjacent Coliseum streets to minimize parking lot back-up. In addition, season and regular ticket holders could be issued speed passes and assigned parking at specific lots.*

3. *Real time radio alerts and broadcasts via Highway Advisory Radio (HAR) shall be located where LADOT deems appropriate.*

4. *In conjunction with the aforementioned measures, Changeable Message Signs (CMS) shall be used to direct vehicles from the freeways and surface streets to the Coliseum/USC parking lots. At least eight or more signs would be needed for results to be noticeable and coordinated.*

5. *Project implementation shall include the development of a carpool incentive system to reduce the number of overall vehicle trips.*

6. *Alternate parking sites located away from the Coliseum shall be made available, as well as transportation to and from these parking areas and the Coliseum.*

7. *Existing turn prohibitions shall remain in place on game days.*

During major Coliseum events, all of these strategies (and more) are employed. Traffic management measures continue to be refined and improved each year. Because these measures are already in place, the identification of significant impacts to intersections and CMP

freeway facilities already included the effect of the mitigation measures and, therefore, these impacts were deemed to be significant and unavoidable.

Chapter 3
Traffic Impact Analysis Methodology

This chapter summarizes the scope and methodology of the traffic impact analysis for the Modified Project.

INTERSECTION ANALYSIS METHODOLOGY

The scope of intersection analysis for this study was developed in consultation with LADOT. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) reviewed and approved by LADOT. The traffic study is ancillary to the analysis conducted for the Approved Project, as the Modified Project does not substantively modify the major event conditions analyzed for the Approved Project. As a result, it includes a fully updated analysis of existing and future baseline traffic conditions for the Study Area developed for the Modified Project.

This study analyzes the potential Modified Project-generated traffic impacts on the street system in the vicinity of the Modified Project Site as compared to existing conditions and projected future conditions at the time the Modified Project is expected to be completed (year 2021). Potential intersection impacts were evaluated for typical weekday evening (3:00 PM to 6:00 PM) and Saturday midday (11:00 AM to 3:00 PM) peak periods. A total of 20 signalized intersections in the vicinity of the Modified Project Site were selected for detailed traffic analysis. They are listed in Table 1 and shown in Figure 2.

This traffic study evaluates the potential for impacts caused by the Modified Project on the street system surrounding the Modified Project Site. Consistent with *Transportation Impact Study Guidelines* (LADOT, December 2016), the following traffic conditions were developed and analyzed as part of this study:

- Existing Conditions (Year 2016) – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts were collected in January and September 2015, July 2016 (Saturday counts only), and September 2016 and represent existing conditions. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was collected in September 2016. Intersection lane configurations are provided in Appendix A, traffic count worksheets in Appendix B, and level of service (LOS) worksheets in Appendix C.

- Existing with Project Conditions (Year 2016) – This analysis condition projects the potential intersection operating conditions that could be expected if the Modified Project were completed and operational under existing conditions. This analysis evaluates the potential Modified Project-related traffic impacts as compared to Existing Conditions.

- Future without Project Conditions (Year 2021) – This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by year 2021. The Future without Project traffic conditions are projected by adding ambient traffic growth and traffic from related projects to Existing Conditions. This analysis provides the conditions by which the Modified Project impacts are evaluated in the future at full buildout.

- Future with Project Conditions (Year 2021) – This analysis projects the potential intersection operating conditions that could be expected if the Modified Project were completed and operational in the projected buildout year. This analysis identifies the potential incremental impacts of the Modified Project at full buildout on projected future traffic operating conditions by adding the Modified Project-generated traffic to the Future without Project traffic forecasts.

In addition, the analysis of Caltrans facilities included projections of year 2035 conditions without and with Modified Project traffic, in accordance with Caltrans' request to review a long-range time horizon.

Intersection Analysis Methodology

Intersection capacity has been analyzed using the "Critical Movement Analysis (CMA) – Planning" (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980) methodology in accordance with the *Transportation Impact Study Guidelines*. The CMA methodology was implemented using LADOT's Calcadb Lite spreadsheet application to analyze intersection operating conditions. The methodology calculates the volume-to-capacity (V/C) ratio, which is used to determine the intersection LOS

according to the LOS definitions provided in Table 2. LOS worksheets for each scenario are provided in Appendix C.

The significance of the potential impacts of Modified Project-generated traffic at the signalized study intersections was determined using criteria identified in *Transportation Impact Study Guidelines*. LADOT guidelines indicate that a project is considered to have a significant traffic impact on a signalized intersection if the increase in the V/C ratio attributable to the project exceeds a specific threshold depending on the final intersection LOS. LADOT has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the V/C ratio of the intersection increases:

Intersection Conditions with Modified Project Traffic		**Significant Impact Threshold for Modified Project-related Increase in V/C Ratio**
LOS	**V/C**	
C	0.701 – 0.800	Equal to or greater than 0.04
D	0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01

Source: City of Los Angeles.

The relative impact of the added traffic volumes to be generated by the Modified Project was evaluated based on analysis of existing and future operating conditions at the study intersections, with and without the Modified Project.

Traffic Signal Automation

The CMA analysis for signalized study intersections accounts for the use of advanced automation in the traffic signal controllers. Each signalized intersection in Los Angeles is equipped with the Automated Traffic Surveillance and Control (ATSAC) system and the Adaptive Traffic Control System (ATCS), which together provide a computer-based traffic signal control program that automatically and continually adjusts and optimizes traffic signal timing based on real-time traffic conditions. The automation system seeks to minimize the amount of delay and the number of vehicle stops throughout the transportation network. It also provides real-time video monitoring capabilities to LADOT engineers. LADOT estimates that this system improves intersection capacity by 10% over a traffic signal without the ATSAC and ATCS

system. This capacity increase is applied to each intersection within the Calcadb Lite software and, therefore, is inherent in the analysis results.

ADDITIONAL TRAFFIC ANALYSES

Caltrans Facilities

Caltrans facilities were evaluated according to the guidelines found in *Guide for the Preparation of Traffic Impact Studies* (Caltrans, 2002) (Caltrans TIS Guide) because the Modified Project met one or more of the screening thresholds identified in *Agreement Between City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures* (Amended December 2015) (the Caltrans Agreement). The Caltrans Agreement identifies a series of screening criteria that, if any are met by the Modified Project, require a more detailed analysis of Caltrans facilities. The full Caltrans analysis is presented in Chapter 9.

Congestion Management Program

An analysis also was conducted according to *2010 Los Angeles County Congestion Management Program* (Metro, 2010) (CMP) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program and State Transportation Improvement Program processes. The CMP requires that a traffic impact analysis be performed (1) for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system.

The required CMP analyses were performed, as detailed in Chapter 10, in accordance with the guidelines referenced in the CMP.

Additional Review and Analysis

In addition to the analyses introduced above, this study includes a review of various other features and conditions related to the Modified Project. These include a review of Modified Project access and circulation, parking requirements and proposed supply, and an analysis of potential traffic impacts associated with the Modified Project's construction. A residential street segment analysis was considered to determine whether any nearby residential streets could be significantly impacted by cut-through traffic. However, no local streets were identified in the vicinity of the Modified Project Site that could provide a viable alternative to using arterial or collector streets, and therefore no additional analysis was necessary.

TABLE 1
STUDY INTERSECTIONS

No	Intersection	Jurisdiction
1.	Normandie Avenue & Exposition Boulevard	City of Los Angeles
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	City of Los Angeles
3.	Vermont Avenue & Jefferson Boulevard	City of Los Angeles
4.	Vermont Avenue & Exposition Boulevard	City of Los Angeles
5.	Vermont Avenue & 39th Street	City of Los Angeles
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	City of Los Angeles
7.	Bill Robertson Lane & Exposition Boulevard	City of Los Angeles
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	City of Los Angeles
9.	Hoover Street & Martin Luther King Jr. Boulevard	City of Los Angeles
10.	Figueroa Street & Jefferson Boulevard	City of Los Angeles
11.	Figueroa Street & Exposition Boulevard / 37th Street	City of Los Angeles
12.	Figueroa Street & Flower Street	City of Los Angeles
13.	Figueroa Street & 39th Street	City of Los Angeles
14.	Figueroa Street & Martin Luther King Jr. Boulevard	City of Los Angeles
15.	Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard	City of Los Angeles
16.	Flower Street & 37th Street / I-110 Southbound On Ramp	City of Los Angeles / Caltrans
17.	Hope Street / I-110 Northbound Off Ramp & 37th Street	City of Los Angeles / Caltrans
18.	I-110 High Occupancy Vehicle Ramps & 39th Street	City of Los Angeles / Caltrans
19.	I-110 Southbound Ramps & Martin Luther King Jr. Boulevard	City of Los Angeles / Caltrans
20.	Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard	City of Los Angeles / Caltrans

TABLE 2
LEVEL OF SERVICE DEFINITIONS

Level of Service	V/C Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* (Transportation Research Board, 1980);

Chapter 4
Existing Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the Modified Project Study Area. The Existing Conditions analysis includes an assessment of the existing freeway and street systems, an analysis of traffic volumes and current operating conditions, and an assessment of the existing public transit service, as well as pedestrian and bicycle circulation.

STUDY AREA

The Modified Project's Study Area, shown in Figure 2, includes a geographic area approximately 1.0 miles (north-south) by approximately 1.2 miles (east-west) that is generally bounded by Jefferson Boulevard to the north, I-110 to the east, Martin Luther King Jr. Boulevard to the south, and Normandie Avenue to the west.

A traffic analysis study area generally comprises all intersections that have potential to experience significant traffic impacts from Modified Project traffic as defined by the City's impact criteria. The Study Area was established in consultation with the City taking into consideration the Modified Project's peak hour trip generation estimates, the anticipated distribution of Modified Project traffic, and the existing operations of nearby intersections and corridors.

A total of 20 signalized intersections were identified during the MOU process for detailed analysis. Figure 2 illustrates the location of the Modified Project Site in relation to the surrounding street system and the 20 study intersections. The existing lane configurations at the analyzed intersections are provided in Appendix A.

EXISTING STREET SYSTEM

The existing street system in the Study Area consists of a regional roadway system including Freeways, Boulevards, Avenues, Collectors and Local Streets which provide regional, sub-regional, or local access and circulation within the Study Area. Street classifications are designated in the *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, May 2015) (Mobility Plan 2035). The available facilities in the Study Area are defined by the following:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Boulevards are arterial streets that provide primary through traffic routes with limited access to adjacent properties. Boulevards are divided into two categories:
    - Boulevard I typically provides 100 feet of paved width within 136 feet of right-of-way.
    - Boulevard II typically provides 80 feet of paved width within 110 feet of right-of-way.
- Avenues are arterial streets that serve through traffic, as well as provide access to major commercial activity centers. Avenues are divided into three categories:
    - Avenue I typically provides 70 feet of paved width within 100 feet of right-of-way.
    - Avenue II typically provides 56 feet of paved width within 86 feet of right-of-way.
    - Avenue III typically provides 46 feet of paved width within 72 feet of right-of-way.
- Collector Streets are intended to assist local traffic flow to Avenues and are typically located at quarter-mile intervals in a grid system.
- Local Streets provide circulation for local adjacent neighborhoods and do not typically serve commercial uses. Local streets provide connections to collector streets, which in turn, connect to the arterial street network.

The following is a brief description of the major roadways in the Study Area, including their classifications under Mobility Plan 2035:

Freeways

- I-110 – I-110 runs north and south through the Study Area to the east of the Modified Project Site and Exposition Park. In the vicinity of the Study Area, I-110 provides four general-access travel lanes in each direction. It also provides two high-occupancy vehicle / toll hybrid express lanes in each direction on an elevated expressway. These lanes, operated by Metro, allow vehicles with two or more occupants to travel at no charge while solo drivers must pay a fee that varies based on the distance travelled and the amount of congestion in the general-access lanes. The express lanes are provided between Adams Boulevard (approximately one mile north of the Modified Project Site) and the Artesia Freeway (SR 91) approximately 10 miles south of the Modified Project Site. There is exclusive access to the express lanes provided on 39th Street, offering a northbound off-ramp and a southbound on-ramp. There are general-access ramp systems at Exposition Boulevard and Martin Luther King Jr. Boulevard.

Roadways

- Jefferson Boulevard – Jefferson Boulevard is a designated Avenue I running east and west approximately 0.5 miles north of the Modified Project Site. It generally provides four travel lanes, with left-turn lanes at intersections. Metered on-street parking is generally available under Existing Conditions, though the parking will be removed as part of the Jefferson Boulevard Streetscape Plan, a component of the USC Specific Plan. Upon completion of the Jefferson Boulevard Streetscape Plan, it would have 10- and 11-foot travel lanes, 7-foot bicycle lanes, a 16-foot center median, and 14-foot sidewalks.

- Exposition Boulevard – Exposition Boulevard is a designated Avenue I running east and west along the northern border of the Modified Project Site and Exposition Park. It connects with 37th Street at Figueroa Street. It generally provides four travel lanes, with left-turn lanes at intersections. On-street parking is prohibited. The Metro Expo Line travels in the median of Exposition Boulevard. Exposition Boulevard provides 11-foot travel lanes.

- 37th Street – 37th Street is a designated Avenue II running east and west as the eastbound extension of Exposition Boulevard east of Figueroa Street, approximately 0.6 miles east of the Modified Project Site. It provides two-way travel east of Hope Street. It generally provides three to four travel lanes, whether in one direction or shared between two directions. It provides 10-foot travel lanes (with wider curb lanes) and parking is prohibited.

- 39th Street – 39th Street is a designated Collector west of Bill Robertson Lane running east and west through the Modified Project Site. It provides two travel lanes in this segment, and on-street parking is available west of Vermont Avenue. 39th Street is an Avenue I between Figueroa Street and the I-110 express lane ramps and an Avenue II east of that point. Between Bill Robertson Lane and Figueroa Street, 39th Street is connected by Exposition Park Drive, a private street traveling through Exposition Park. It provides 11-foot travel lanes east of Exposition Park.

- Martin Luther King Jr. Boulevard – Martin Luther King Jr. Boulevard is a designated Avenue I running east and west along the southern border of the Modified Project Site and Exposition Park. It generally provides six travel lanes 10-feet wide, with left-turn lanes at intersections and a center left-turn lane. On-street parking is available west of Vermont Avenue.

- Vernon Avenue – Vernon Avenue is a designated Avenue II running east and west approximately 0.5 miles south of the Modified Project Site. It generally provides four travel 10-foot lanes, with left-turn lanes at intersections and a center left-turn lane. On-street parking is available with morning and evening peak hour restrictions on the southern side and a one hour limit east of Vermont Avenue. On-street parking is available with evening peak hour restrictions on the northern side.

- Normandie Avenue – Normandie Avenue is a designated Avenue II running north and south approximately 0.5 miles west of the Modified Project Site. It provides four 11-foot travel lanes, with left-turn lanes at intersections. On-street parking is generally available.

- Vermont Avenue – Vermont Avenue is a designated Avenue I running north and south along the western boundary of the Modified Project Site and the western border of Exposition Park. It provides four 11-foot travel lanes with a center median and left-turn lanes at intersections. Metered on-street parking is generally available north of Exposition Boulevard. Parking is prohibited between Exposition Boulevard and Martin Luther King Jr. Boulevard. South of Martin Luther King Jr. Boulevard, parking is generally available.

- Bill Robertson Lane – Bill Robertson Lane is a designated Local Street running north and south along the eastern boundary of the Modified Project Site within Exposition Park. It generally provides two travel lanes within approximately 46 feet of paved width. On-street parking is generally restricted north of Leighton Avenue and available with a two hour limit south of that point.

- Hoover Street – Hoover Street is a designated Avenue II running north and south approximately 0.2 miles southeast of the Modified Project Site. It provides four 10-foot travel lanes and on-street parking is generally available.

- Figueroa Street – Figueroa Street is a designated Avenue I running north and south approximately 0.5 miles east of the Modified Project Site along the eastern border of Exposition Park. It provides four to six 10-foot travel lanes, with left-turn lanes at intersections. Metered on-street parking is generally available on the eastern side near the Exposition Center and on both sides with peak period restrictions elsewhere.

- Flower Street – Flower Street is a designated Avenue II running southwest with a single northwest lane south of 37th Street approximately 0.5 miles east of the Modified Project Site. It generally provides two to three 10-foot travel lanes, with left-turn and right-turn lanes at intersections. On-street parking is generally available. The Metro Expo Line travels adjacent to Flower Street north of Exposition Boulevard.

EXISTING TRANSIT SYSTEM

The Modified Project area is served by bus lines operated by Metro and LADOT Downtown Area Shuttle (LADOT DASH). Figure 3 illustrates the existing transit service in the Study Area. The following provides a brief description of each route:

- Metro Local 35/38 – Route 35/38 is a local line that travels from Downtown Los Angeles to Washington/Fairfax via Jefferson Boulevard, with average headways of 20 minutes during the weekday evening peak period, and 30 minutes during the Saturday midday peak period. This line provides service to Los Angeles, Exposition Park, and Downtown Los Angeles and travels along Jefferson Boulevard near the Modified Project Site.

- Metro Local 40 – Route 40 is a local line that travels from Downtown Los Angeles to the South Bay Galleria via Martin Luther King Jr. Boulevard and Hawthorne Boulevard, with average headways of 10 minutes during the weekday evening peak period and 15 minutes during the Saturday midday peak period. This line provides service to Los Angeles, Hyde Park, Hawthorne, and Redondo Beach and travels along Martin Luther King Jr. Boulevard in the Study Area.

- Metro Local 81 – Route 81 is a local line that travels from Eagle Rock to the Harbor Freeway Station via Figueroa Street, with average headways of 10 minutes during the weekday evening peak period and 15 minutes during the Saturday midday peak period. This line provides service to Eagle Rock, Highland Park, Cypress Park, Downtown Los Angeles, Exposition Park, and South Los Angeles and travels along Figueroa Street in the Study Area.

- Metro Local 102 – Route 102 is a local line that travels from South Gate to the Los Angeles International Airport (LAX) City Bus Center via La Tijera Boulevard and Exposition Boulevard, with average headways of 35 to 40 minutes during the weekday evening peak period and 60 minutes during the Saturday midday peak period. This line provides service to South Gate, Los Angeles, Leimert Park, and LAX and travels along Exposition Boulevard near the Modified Project Site.

- Metro Local 200 – Route 200 is a local line that travels from Echo Park to Exposition Park via Alvarado Street and Hoover Street, with average headways of 10 minutes during the weekday evening and Saturday midday peak period. This line travels along Figueroa Street near the Modified Project Site.

- Metro Local 204 – Route 204 is a local line that travels from Hollywood to Athens via Vermont Avenue, with average headways of 10 minutes during the weekday evening peak period and 20 to 25 minutes during the Saturday midday peak period. This line provides service to Hollywood, Koreatown, South Los Angeles, and Athens and travels along Vermont Avenue near the Modified Project Site.

- Metro Local 206 – Route 206 is a local line that travels from Hollywood to Athens via Normandie Avenue, with average headways of 10 minutes during the weekday evening peak period and 20 to 25 minutes during the Saturday midday peak period. This line

provides service to Hollywood, Koreatown, South Los Angeles, and Athens and travels along Normandie Avenue near the Modified Project Site.

- Metro Express 442 – Route 442 is a commuter express line that travels from Downtown Los Angeles to Hawthorne/Lennox Station via Manchester Boulevard, with four runs in the southbound direction during the weekday evening peak period. There is no service in the northbound direction during the weekday evening period and no service at all on weekends. This line provides service from Downtown Los Angeles to Inglewood and Hawthorne and travels along Figueroa Street near the Modified Project Site.

- Metro Express 550 – Route 550 is an express line that travels from Exposition Park to San Pedro via the Harbor Transitway, with average headways of 35 minutes during the weekday evening peak period. It does not travel north of Harbor City during the Saturday midday peak period and, therefore, does not provide service to the Study Area during that time. This line provides service to Exposition Park, Harbor Gateway, Harbor City, and San Pedro and travels along Exposition Boulevard near the Modified Project Site.

- Metro Rapid 754 – Route 754 is a limited-stop line that travels from Hollywood to Athens via Vermont Avenue, with average headways of 10 minutes during the weekday evening peak period and 15 minutes during the Saturday midday peak period. This line provides service to Hollywood, Westlake, Vermont Knolls, and Athens and travels along Vermont Avenue near the Modified Project Site.

- LADOT DASH Downtown F – DASH Downtown F is a local line that travels from downtown Los Angeles to Exposition Park primarily on Figueroa Street and Flower Street, with average headways of 10 minutes during the weekday evening peak period and 20 minutes during the Saturday midday peak period. This line travels along Exposition Boulevard in the vicinity of the Modified Project Site.

- LADOT DASH Southeast – DASH Southeast is a local circulator traveling on a loop south and east of Exposition Park, with average headways of 20 minutes during the weekday evening and Saturday midday peak hours. This line travels along Martin Luther King Jr. Boulevard and Figueroa Street adjacent to Exposition Park in the vicinity of the Modified Project Site.

- LADOT DASH Leimert/Slauson – DASH Leimert/Slauson is a local circulator traveling on a loop around the Leimert and Slauson areas of South Los Angeles with average headways of 25 minutes during the weekday evening and Saturday midday peak hours. The northeast corner of the loop is the intersection of Vermont Avenue & Martin Luther King Jr. Boulevard, adjacent to Exposition Park.

In addition to the bus lines that provide service within the Modified Project vicinity, the Metro Expo Line operates in the Study Area, with six minute headways during the weekday evening peak period and 12 minute headways during the Saturday midday peak period. The Metro Expo Line runs between downtown Santa Monica and downtown Los Angeles, connecting with the Metro Blue Line, Metro Purple Line and Metro Red Line in downtown Los Angeles. The Metro Expo Line stops at Vermont Avenue & Exposition Boulevard, adjacent to the LMNA Site.

Table 3 summarizes the transit lines operating in the vicinity of the Modified Project Site. It shows the routes organized by service provider, the type of service (peak vs. off-peak, express vs. local), and frequency of service, as described above. The average bus headways during the peak hour were estimated using detailed trip and ridership data from March 2015 provided by Metro. The rail headways were based on data for October 2016 provided by Metro.

Tables 4A and 4B summarize the total available capacity of the Metro transit system (no data was available for the LADOT DASH bus systems) near the Modified Project Site during the weekday evening and Saturday midday peak hours, respectively, based on the frequency of service of each line, the standing capacity of each bus or train, and the average peak hour load in each direction. As shown in Tables 4A and 4B, the Metro transit lines within the Study Area currently provide additional capacity for 7,500 transit trips during the weekday evening peak hour and 3,363 transit trips during the Saturday midday peak hour.

BICYCLE AND PEDESTRIAN NETWORK

Within the Study Area, several streets are designated bicycle routes, including Vermont Avenue between Jefferson Boulevard and 39th Street, 39th Street west of Vermont Avenue, Hoover Street south of Martin Luther King Jr. Boulevard, and Figueroa Street north of Exposition Boulevard. There are dedicated bicycle lanes on Exposition Boulevard west of Vermont Avenue.

The walkability of existing facilities for pedestrians is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by WalkScore.com and assigned a score out of 100 points. The walkability of the Study Area is rated at 88 points (“very walkable” – most errands can be accomplished on foot) compared to a citywide score of 66 points. The sidewalks that serve as routes to the Modified Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at intersections within the Study Area. Striped crosswalks are provided at most legs of nearby intersections. Direct pedestrian connectivity to the Modified Project Site is described in greater detail in Chapter 9, Site Access and Circulation.

VISION ZERO

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. Within the Study Area, the following streets have been identified in the High Injury Network:

- Jefferson Boulevard
- Martin Luther King Jr. Boulevard
- Normandie Avenue
- Vermont Avenue
- Hoover Street
- Figueroa Street

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

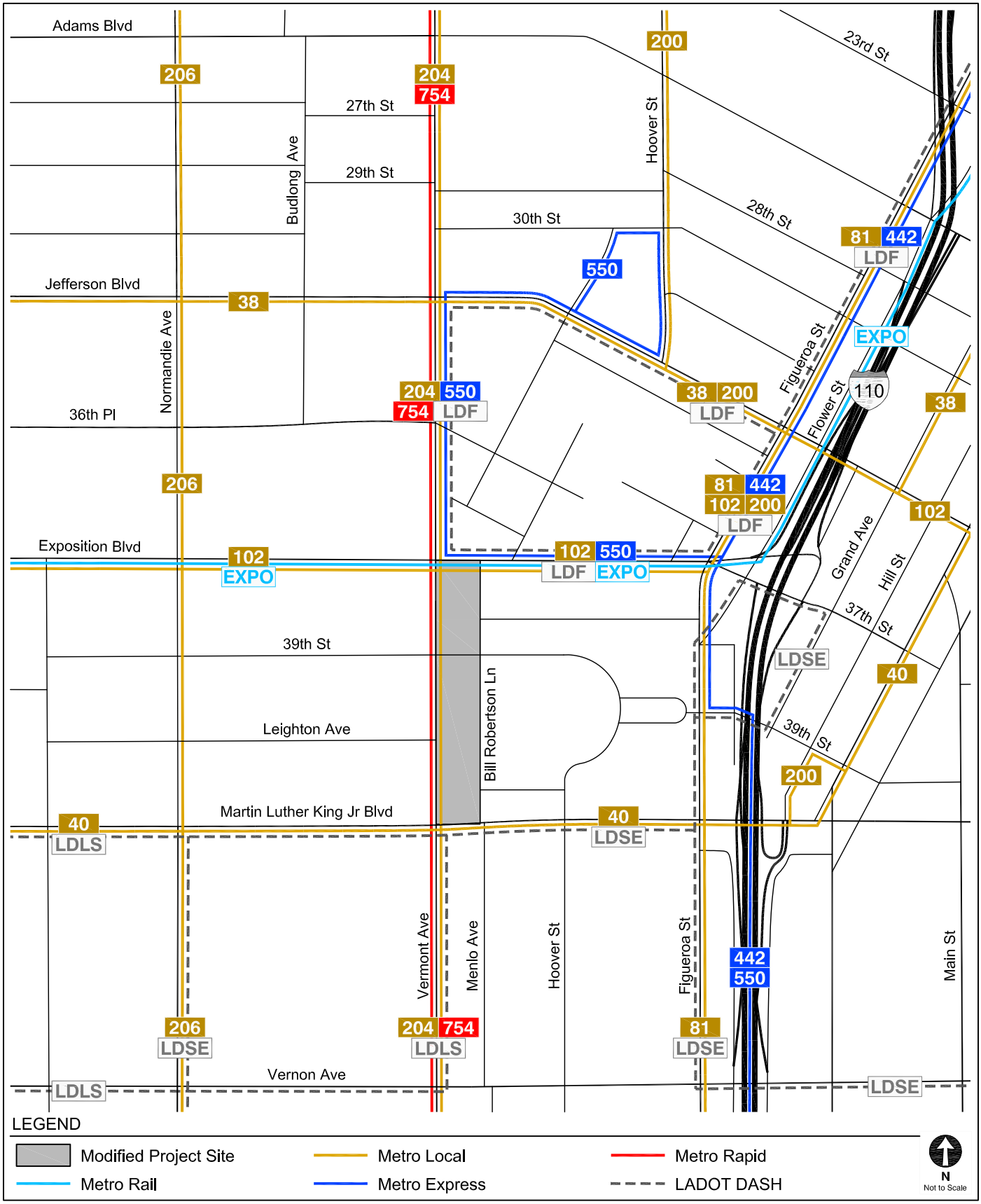
This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating V/C ratios or delay and LOS.

Existing Traffic Volumes

Intersection turning movement counts were conducted at the 20 study intersections during the weekday evening (3:00 PM to 6:00 PM) and Saturday midday (11:00 AM to 3:00 PM) peak periods in January and September 2015 and July and September 2016. For the purposes of this analysis, these counts represent existing conditions in year 2016. Local schools were in session when the weekday traffic counts were conducted. The existing intersection peak hour traffic volumes are illustrated in Figure 4. Traffic count worksheets are provided in Appendix B.

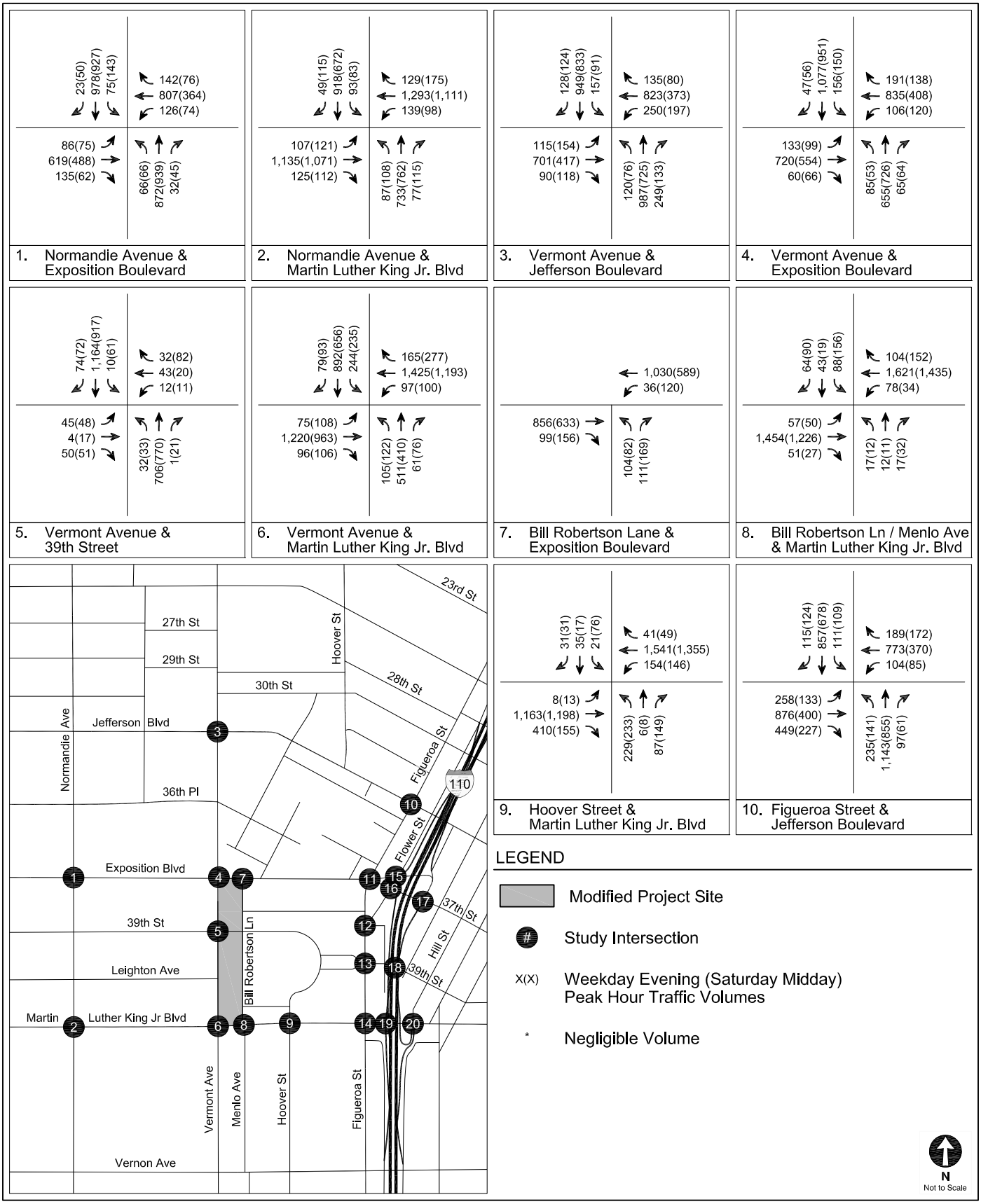
Existing Intersection Levels of Service

Table 5 summarizes the weekday evening and Saturday midday peak hour LOS results for each of the study intersections under Existing Conditions. As shown, all 20 study intersections currently operate at LOS D or better during both the weekday evening and Saturday midday peak hours.



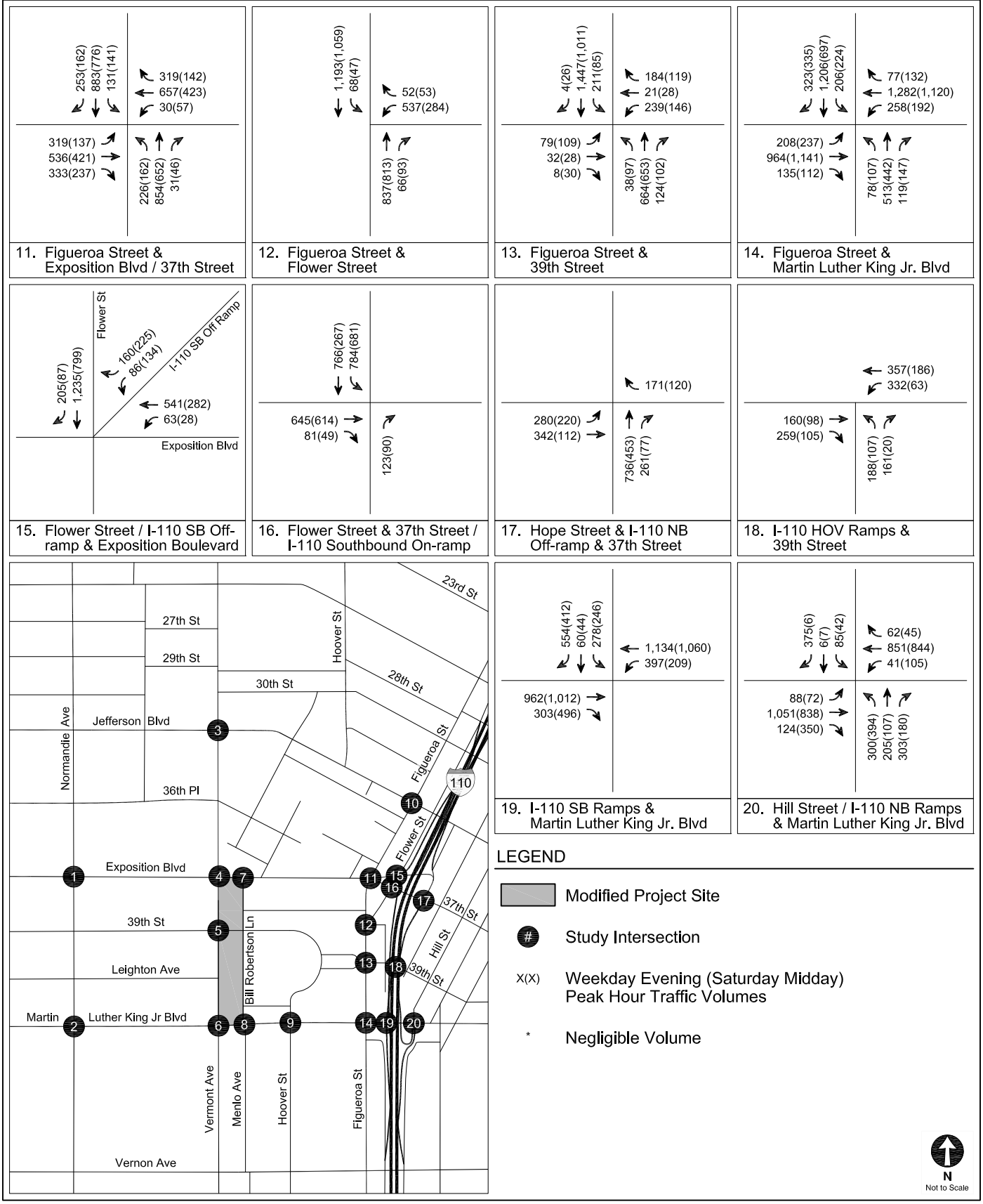
EXISTING TRANSIT SERVICE

FIGURE 3



EXISTING CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 4



EXISTING CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)

TABLE 3
EXISTING TRANSIT SERVICE IN STUDY AREA

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				Weekday Evening Peak Period		Saturday Midday Peak Period	
				NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service							
38	Downtown LA to Washington/Fairfax via Jefferson Blvd	Local	24-Hour	22	18	30	30
40	Downtown LA to South Bay Galleria via Martin Luther King Jr. Blvd and Hawthorne Blvd	Local	24-Hour	12	10	17	15
81	Eagle Rock to Downtown LA / Harbor Fwy Station via Figueroa St	Local	5:15 AM - 12:45 AM	10	10	15	17
102	South Gate to LAX City Bus Center via La Tijera Blvd & Exposition Blvd	Local	6:00 AM - 9:45 PM	34	40	60	60
200	Echo Park to Exposition Park via Alvarado St & Hoover St	Local	5:15 AM - 2:00 AM	8	8	9	10
204	Hollywood to Athens via Vermont Ave	Local	24-Hour	10	10	24	17
206	Hollywood to Athens via Normandie Ave	Local	5:00 AM - 12:00 AM	13	11	24	20
442	Downtown LA to Hawthorne / Lennox Station via Manchester Blvd	Express	Weekday Commuter Peak Periods	no service	60	no service	no service
550	Exposition Park to San Pedro via Harbor Transitway	Express	Weekday Commuter Peak Periods	34	34	no service	no service
754	Hollywood to Athens via Vermont Ave	Rapid	5:30 AM - 8:45 PM	7	8	13	12
LADOT DASH Bus Service							
F	Financial District to Exposition Park	Local	6:30 AM - 6:30 PM	20	20	10	10
SE	Southeast Los Angeles Circulator (Loop)	Local	7:30 AM - 7:30 PM	20	20	20	20
LS	Leimert-Slauson Circulator (Loop)	Local	6:45 AM - 6:30 PM	25	25	25	25
Metro Rail Service							
Expo	Downtown LA to Downtown Santa Monica via Exposition Boulevard	Rail	4:15 AM - 2:00 AM	6	6	12	12

Notes

Metro: Los Angeles County Metropolitan Transportation Authority; LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle.
Weekday Evening Peak Period from 3:00 to 7:00 PM; Saturday Midday Peak Period from 12:00 to 2:00 PM.

TABLE 4A
TRANSIT SYSTEM CAPACITY IN STUDY AREA - WEEKDAY EVENING PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
38	Downtown LA to Washington/Fairfax via Jefferson Blvd	50	14	33	8	23	42	27	114	89
40	Downtown LA to South Bay Galleria via Martin Luther King Jr. Blvd and Hawthorne Blvd	50	37	54	26	42	24	8	120	46
81	Eagle Rock to Downtown LA / Harbor Fwy Station via Figueroa St	50	24	51	17	39	33	11	208	68
102	South Gate to LAX City Bus Center via La Tijera Blvd & Exposition Blvd	50	14	19	12	13	38	37	67	55
200	Echo Park to Exposition Park via Alvarado St & Hoover St	50	20	11	8	7	42	43	338	336
204	Hollywood to Athens via Vermont Ave	50	32	48	23	35	27	15	154	93
206	Hollywood to Athens via Normandie Ave	50	25	35	17	25	33	26	155	140
442	Downtown LA to Hawthorne / Lennox Station via Manchester Blvd	50	n/a	23	n/a	19	n/a	31	n/a	31
550	Exposition Park to San Pedro via Harbor Transitway	50	2	8	1	5	49	45	85	79
754	Hollywood to Athens via Vermont Ave	50	44	52	29	40	22	10	177	76
LADOT DASH Bus Service - No Data Available										
Metro Rail Service										
Expo	Downtown LA to Downtown Santa Monica via Exposition Boulevard	400	n/a	n/a	148	145	252	255	2,520	2,550
								Total Transit System Capacity	**7,500**	

Notes

Metro: Los Angeles County Metropolitan Transportation Authority; LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle.

[a] Capacity assumptions:

Metro Bus - 40 seated / 50 standing.

Metro Light Rail - 76 seated / 133 standing (175% of seated capacity) per car x 3 cars per train = 400 patrons.

TABLE 4B
TRANSIT SYSTEM CAPACITY IN STUDY AREA - SATURDAY MIDDAY PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
38	Downtown LA to Washington/Fairfax via Jefferson Blvd	50	20	20	17	18	33	33	91	106
40	Downtown LA to South Bay Galleria via Martin Luther King Jr. Blvd and Hawthorne Blvd	50	48	39	37	49	13	1	64	5
81	Eagle Rock to Downtown LA / Harbor Fwy Station via Figueroa St	50	45	45	30	34	21	16	128	100
102	South Gate to LAX City Bus Center via La Tijera Blvd & Exposition Blvd	50	12	27	11	20	40	31	69	46
200	Echo Park to Exposition Park via Alvarado St & Hoover St	50	22	12	13	8	37	42	293	327
204	Hollywood to Athens via Vermont Ave	50	50	45	40	35	10	15	55	94
206	Hollywood to Athens via Normandie Ave	50	30	34	24	22	26	28	123	153
442	Downtown LA to Hawthorne / Lennox Station via Manchester Blvd	50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
550	Exposition Park to San Pedro via Harbor Transitway	50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
754	Hollywood to Athens via Vermont Ave	50	50	45	36	35	14	15	114	111
LADOT DASH Bus Service - No Data Available										
Metro Rail Service										
Expo	Downtown LA to Downtown Santa Monica via Exposition Boulevard	400	n/a	n/a	105	101	295	299	738	748
								Total Transit System Capacity	**3,363**	

Notes

Metro: Los Angeles County Metropolitan Transportation Authority; LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle.

[a] Capacity assumptions:

Metro Bus - 40 seated / 50 standing.

Metro Light Rail - 76 seated / 133 standing (175% of seated capacity) per car x 3 cars per train = 400 patrons.

TABLE 5
EXISTING CONDITIONS (YEAR 2016)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing	
			V/C Ratio	LOS
1.	Normandie Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.720 0.616	C B
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.722 0.637	C B
3.	Vermont Avenue & Jefferson Boulevard	Wkdy Eve Sat Mid	0.784 0.525	C A
4.	Vermont Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.755 0.609	C B
5.	Vermont Avenue & 39th Street	Wkdy Eve Sat Mid	0.422 0.359	A A
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.770 0.696	C B
7.	Bill Robertson Lane & Exposition Boulevard	Wkdy Eve Sat Mid	0.339 0.380	A A
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.578 0.516	A A
9.	Hoover Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.527 0.470	A A
10.	Figueroa Street & Jefferson Boulevard	Wkdy Eve Sat Mid	0.691 0.384	B A
11.	Figueroa Street & Exposition Boulevard / 37th Street	Wkdy Eve Sat Mid	0.752 0.509	C A
12.	Figueroa Street & Flower Street	Wkdy Eve Sat Mid	0.421 0.307	A A
13.	Figueroa Street & 39th Street	Wkdy Eve Sat Mid	0.448 0.341	A A
14.	Figueroa Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.808 0.704	D C
15.	Flower Street / I-110 SB Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	0.386 0.233	A A
16.	Flower Street & 37th Street / I-110 SB On-ramp	Wkdy Eve Sat Mid	0.391 0.320	A A
17.	Hope Street / I-110 NB Off-ramp & 37th Street	Wkdy Eve Sat Mid	0.361 0.193	A A
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	0.527 0.098	A A
19.	I-110 SB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.651 0.531	B A
20.	Hill Street / I-110 NB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.825 0.543	D A

Chapter 5
Future without Project Conditions

Estimates of future traffic conditions both with and without the Modified Project, representing cumulative conditions, were developed to evaluate the potential impacts of the Modified Project on the local street system. This discussion details the assumptions used to develop the Future without Project Conditions in year 2021, which corresponds to the anticipated Modified Project buildout year.

The existing traffic volumes were factored by an annual ambient growth rate to approximate regional growth and development. In addition to the ambient growth, for purposes of providing a conservative analysis of potential cumulative traffic impacts, the traffic generated by proposed, approved, and under construction projects in and around the Study Area was also added to estimate the Future without Project traffic conditions.

AMBIENT TRAFFIC GROWTH

Traffic levels are expected to increase over time as a result of regional growth and development in and around the Study Area. Based on discussions with LADOT through the MOU process, an ambient growth factor of 1% per year compounded annually was used to adjust the existing traffic volumes to reflect the effects of the regional growth and development by year 2021. The total adjustment applied over the five-year period was 5.10%. This growth factor accounts for increases in traffic due to potential projects not yet proposed or projects outside the Study Area.

RELATED PROJECTS

This study also considers growth in traffic due to other projects proposed, approved, or under construction in and around the Study Area, known as the Related Projects. The list of Related

Projects is based on information provided by the Los Angeles Department of City Planning and LADOT, as well as recent studies of projects in the area. The Related Projects are detailed in Table 6 and shown in Figure 5 and include all projects within a two mile radius of the Modified Project Site.

The development of estimated traffic volumes added to the Study Area as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Trip Generation

Trip generation estimates for the Related Projects were provided by LADOT, and are generally based on previous study findings and the trip generation rates contained in *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE], 2012). Table 6 summarizes the Related Project trip generation for typical weekday evening peak hours and Saturday midday peak hours. The Saturday midday peak hour estimates are 80% of the weekday evening peak hour estimates, consistent with the proportional difference in total existing traffic volumes at the study intersections between weekday evening and Saturday midday peak hours. The trip generation forecasts are conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (transit, bicycle, walk, etc.)

Trip Distribution

The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These include the type and density of the proposed land uses, the geographic distribution of the population from which the employees/residents and potential patrons of the proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Trip Assignment

The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. These volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected buildout year of 2021. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) and are shown in Figure 6 for each study intersection.

FUTURE INFRASTRUCTURE IMPROVEMENTS

The roadway network for the Future without Project Conditions within the Study Area could also be affected by regional improvement plans, local specific plans, and programmed improvements. In particular, Mobility Plan 2035 and *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (Los Angeles Department of City Planning, 2010) (2010 Bicycle Plan) provide guidelines for long-range improvements to streets within the Study Area.

Mobility Plan 2035

In Mobility Plan 2035, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The specific improvements that may be implemented in those networks have not yet been identified and there is no schedule for implementation. The following mobility-enhanced networks include corridors within the Study Area:

Transit Enhanced Network. Vermont Avenue and Figueroa Street north of Martin Luther King Jr. Boulevard are identified as Comprehensive Transit Enhanced Streets. Martin Luther King Jr. Boulevard and the stretch of Jefferson Boulevard between Hoover Street and Flower Street are identified as Moderate Plus Transit Enhanced Streets. Vernon Avenue and Figueroa Street south of Martin Luther King Jr. Boulevard are designated as Moderate Transit Enhanced

Streets. These designations are intended to facilitate the prioritization of transit on these streets, often with peak period or full-time transit-only lanes.

Neighborhood Enhanced Network. Bill Robertson Lane, 39th Street west of Bill Robertson Lane and east of Figueroa Street, and Hoover Street south of Martin Luther King Jr. Boulevard are identified as part of the Neighborhood Enhanced Network. These streets are intended to provide a calm and safe environment for walking, biking, and slower travel modes. The Modified Project proposes to vacate 39th Street between Vermont Avenue and Bill Robertson Lane, at which time vehicular traffic would be substantially decreased on that stretch of roadway, since it would typically be closed to vehicular traffic altogether.

Bicycle Enhanced Network / Bicycle Lane Network. Jefferson Boulevard, Martin Luther King Jr. Boulevard, and Figueroa Street north of Martin Luther King Jr. Boulevard are designated for Tier 1 protected bicycle lanes. Exposition Boulevard is designated for Tier 2 bicycle lanes and Vermont Avenue and Flower Street north of Exposition Boulevard are designated for Tier 3 bicycle lanes.

Pedestrian. Many of the major streets in the Study Area were identified for pedestrian analysis, intended to lead to pedestrian safety improvements on arterial corridors. The identified streets include Jefferson Boulevard, Exposition Boulevard, Martin Luther King Jr. Boulevard, Vernon Avenue, Normandie Avenue, Vermont Avenue, Hoover Street, Figueroa Street, Flower Street, and 39th Street east of Figueroa Street.

The goals of Mobility Plan 2035 within the Study Area may in some instances affect the physical or operational configurations of the roadways. However, the designations identified in Mobility Plan 2035 remain completely conceptual, and in most instances have not been designed, scheduled, or funded for implementation. Therefore, the analysis of Future Conditions in this report assumes no infrastructure changes resulting from Mobility Plan 2035 by Modified Project completion in year 2021.

2010 Bicycle Plan

The 2010 Bicycle Plan identifies the City's vision for a more integrated bicycle network throughout the City, including within the Study Area. It proposes bicycle lanes on Jefferson Boulevard, Exposition Boulevard, Martin Luther King Jr. Boulevard, and Figueroa Street and Flower Street north of Exposition Boulevard. It also proposes bicycle routes on Figueroa Street, 37th Street, and 39th Street east of Figueroa Street. Finally, it proposes to configure Bill Robertson Lane, 39th Street west of Bill Robertson Lane, and Hoover Street south of Martin Luther King Jr. Boulevard as bicycle friendly streets, which are lower-volume residential or collector streets that receive traffic-calming features, signage, and shared-lane markings indicating that bicycles and vehicles should share the road. With the exception of those bicycle facilities to be implemented as part of the MyFigueroa Streetscape Project, discussed below, there is no schedule for implementation of these facilities and, therefore, they were assumed not to be completed by year 2021.

MyFigueroa Streetscape Project

The MyFigueroa Streetscape Project is the City's comprehensive roadway modification proposal for Figueroa Street between 7th Street in downtown Los Angeles and Martin Luther King Jr. Boulevard, including adjacent to Exposition Park. This project, which officially broke ground in October 2016, would remove some vehicular travel lanes in favor of providing bicycle lanes, transit-only lanes, and/or wider sidewalks. With MyFigueroa in place, Figueroa Street would be restriped to provide two travel lanes in each direction as well as a center left-turn lane. Buffered bicycle lanes would also be provided in each direction. On Martin Luther King Jr. Boulevard, there would be transit and pedestrian improvements but the vehicular lane configuration would not be affected. Therefore, for all Future Conditions analysis, this report assumed a reduced capacity at all study intersections on Figueroa Street as far south as Martin Luther King Jr. Boulevard.

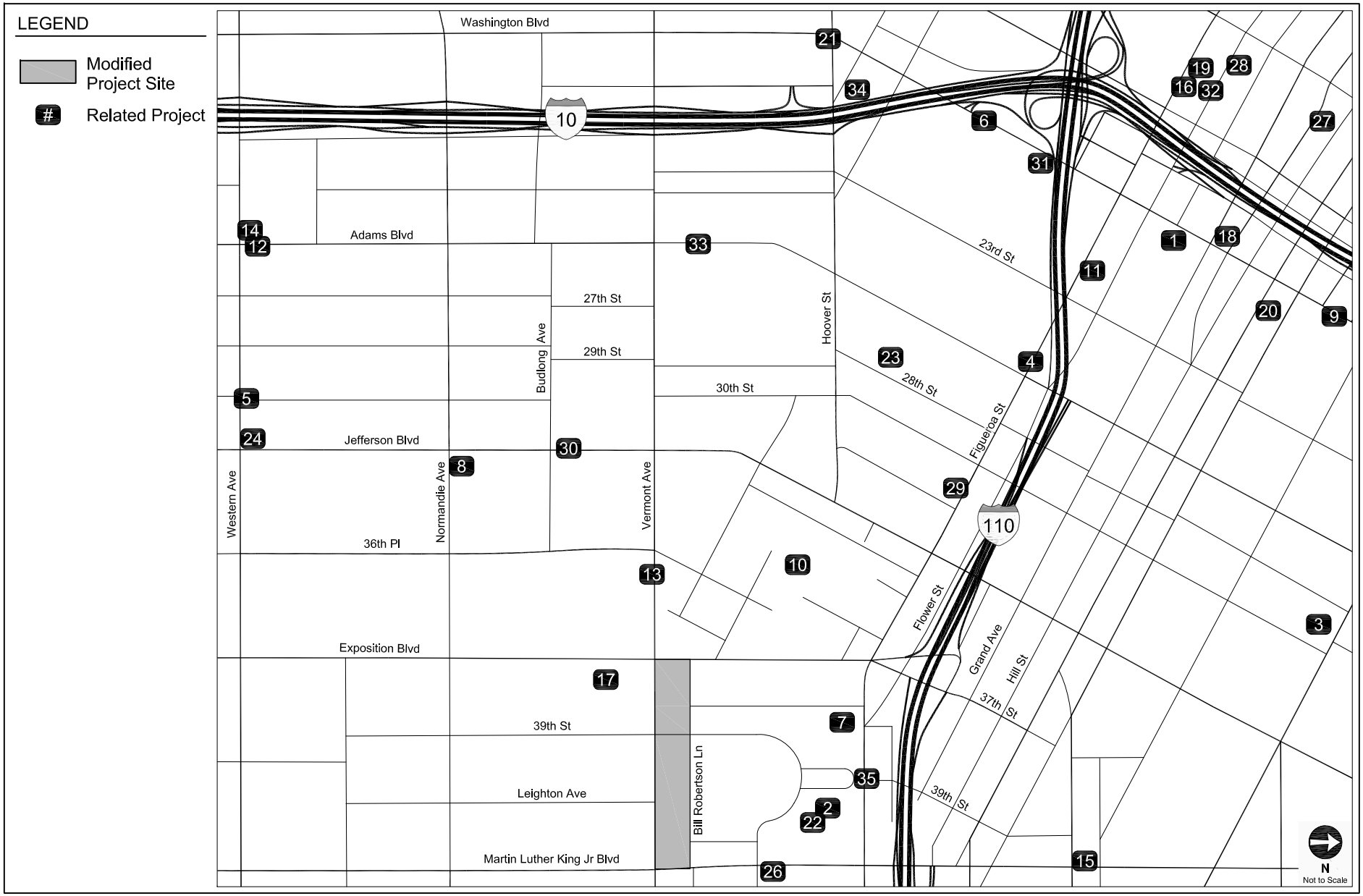
Jefferson Boulevard Streetscape Plan

The Jefferson Boulevard Streetscape Plan was proposed as part of the USC Specific Plan and includes the narrowing of Jefferson Boulevard between Vermont Avenue and Flower Street to

accommodate wider sidewalks and on-street bicycle lanes. The number of travel lanes on Jefferson Boulevard would not be affected, but on-street parking would be removed.

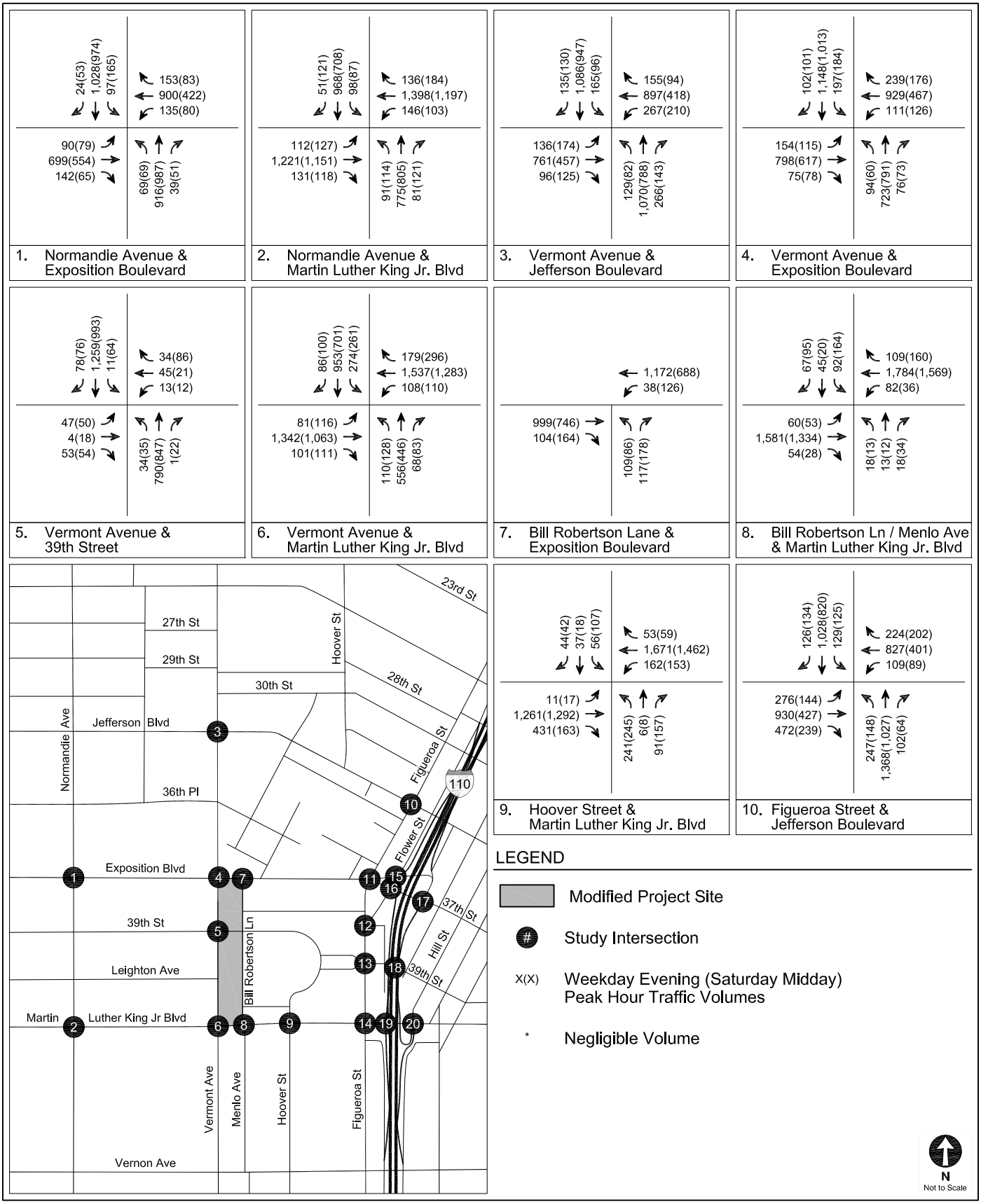
FUTURE WITHOUT PROJECT INTERSECTION LEVELS OF SERVICE

Table 7 summarizes the weekday evening and Saturday midday peak hour LOS results for each of the study intersections under Future without Project Conditions. As shown, 19 of the 20 study intersections are projected to operate at LOS D or better during both the weekday evening and Saturday midday peak hours. Intersection #14, Figueroa Street & Martin Luther King Jr. Boulevard, is projected to operate at LOS F during the weekday evening peak hour.



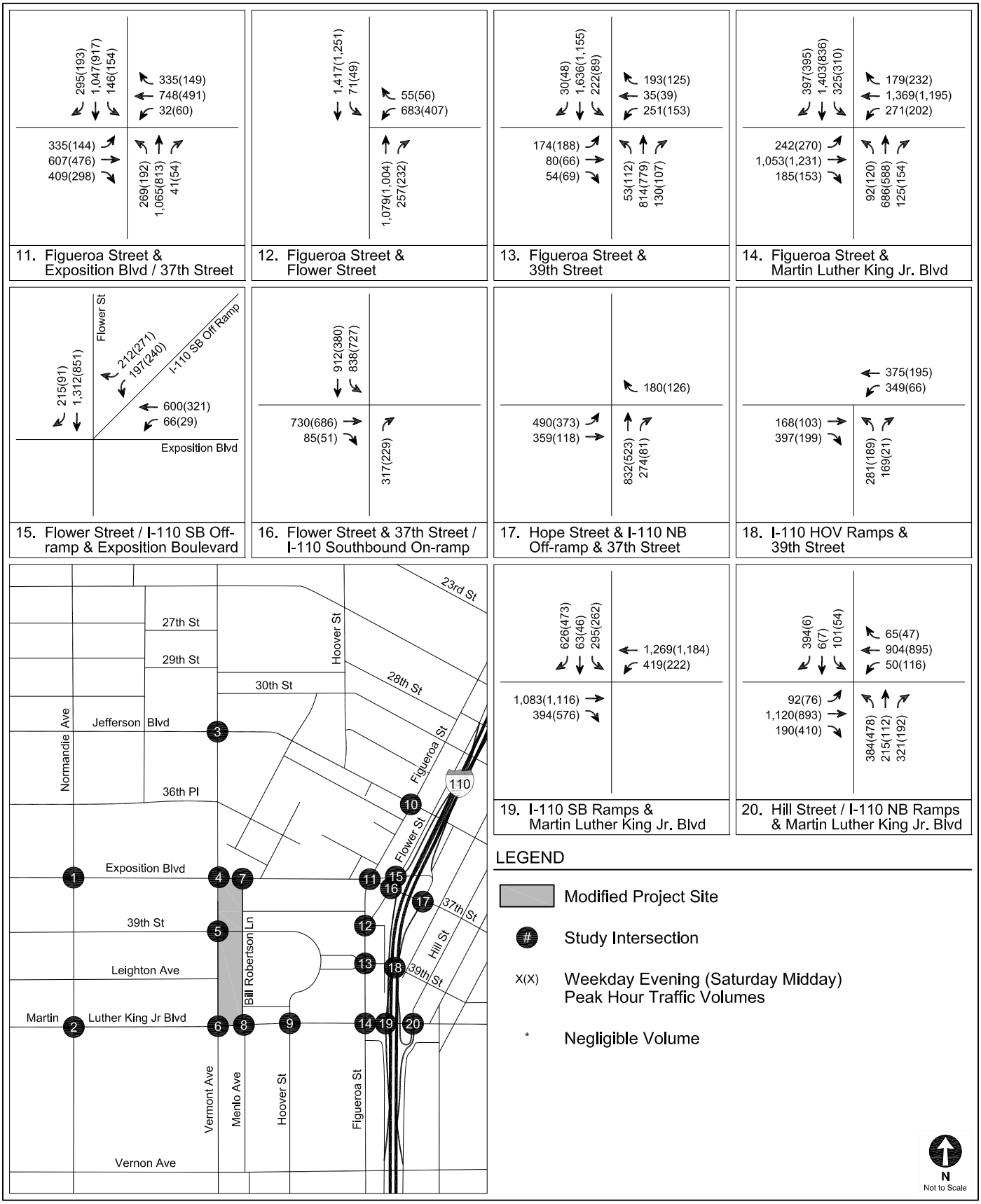
LOCATIONS OF RELATED PROJECTS

FIGURE 5



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 6



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
6 (CONT.)

TABLE 6
RELATED PROJECTS

No	Project	Address	Description	Trip Generation [a]					
				Weekday Evening Peak Hour			Saturday Midday Peak Hour		
				In	Out	Total	In	Out	Total
1	LA Trade Tech College	400 W Washington Blvd	30-year Master Plan	574	268	842	459	215	674
2	LA Memorial Coliseum Renovation	3911 S Figueroa St	Renovations and capacity reduction to historic outdoor stadium	n/a	n/a	n/a	n/a	n/a	n/a
3	Mixed-Use Project	1011 E Adams Blvd	80 apartments and 17,372 sf retail	10	0	10	8	0	8
4	Figueroa & Adams Student Housing	2455 S Figueroa St	145 apartment units (student housing)	54	28	82	43	23	66
5	Condominiums	3001 S Western Ave	66 condominiums	23	11	34	18	9	27
6	Oak Village Residences	902 W Washington Blvd	142 townhomes / condominiums	35	16	51	28	13	41
7	California African American Museum	600 S State Dr	Renovate museum and expand by 77,100 sf	2	34	36	2	27	29
8	Pacific Charter Middle School	1371 W 35th St	300-student middle school	0	0	0	0	0	0
9	Opportunity - Mercy Housing	220 E Washington Blvd	230 apartment units and up to 19,000 sf retail / restaurant	125	53	178	100	42	142
10	USC Specific Plan	USC University Park Campus	20-year Specific Plan	490	567	1,057	392	454	846
11	Mixed-Use Project	2100 S Figueroa St	291 condominiums and 7,134 sf retail	67	(28)	39	53	(22)	31
12	South LA Redevelopment 4B	1982 W Adams Blvd	10,000 sf retail and 22,000 sf office	15	37	52	12	30	42
13	South LA Redevelopment 3A	3671 S Vermont Ave	80 residential units and 50,000 sf retail	85	73	156	68	57	125

TABLE 6 (continued)
RELATED PROJECTS

No	Project	Address	Description	Trip Generation [a]					
				Weekday Evening Peak Hour			Saturday Midday Peak Hour		
				In	Out	Total	In	Out	Total
14	West Adams Office	1999 W Adams Blvd	75,000 sf office building	19	93	112	15	75	90
15	Accelerated Charter Elementary School (ACES)	107 E Martin Luther King Jr. Blvd	500-student elementary school	0	0	0	0	0	0
16	1500 S Figueroa Mixed-Use	1500 S Figueroa St	190 apartments, 10 live / work units, and 10,922 sf retail	71	40	111	57	32	89
17	Rolland Curtis Gardens Mixed-Use	1077 W 38th St	140 apartments and 9,000 sf retail	48	28	76	39	22	61
18	Mixed-Use Project	233 W Washington Blvd	160 apartments and 24,000 sf retail	89	71	160	71	57	128
19	1400 S Figueroa Residential Project	1400 S Figueroa St	106 apartments and 4,834 sf retail / restaurant	39	22	61	31	18	49
20	The Reef - LA Mart / SOLA Village	1900 S Broadway	900 condominiums, 550 apartments, 180,000 sf office, 210 hotel rooms, and 168,700 sf commercial	637	566	1,203	509	453	962
21	Pharmacy / Drug Store	1302 W Washington Blvd	16,572 sf CVS Pharmacy	21	12	33	17	9	26
22	LA Football Club Sports Arena	3939 S Figueroa St	22,000 sf soccer stadium	63	194	257	50	156	206
23	USC Children's Creative Learning Center	2716 S Severence St	9,955 sf expansion to child-care center	58	65	123	46	52	98
24	Starbucks	1789 W Jefferson Blvd	1,486 sf Starbucks with drive through	(4)	(2)	(6)	(3)	(2)	(5)
25	Mixed-Use Project	1037 E Martin Luther King Jr. Blvd	74 apartments and 5,000 sf retail	34	24	58	27	19	46
26	Honda of Downtown LA	740 W Martin Luther King Jr. Blvd	39,406 sf auto service area	37	56	93	29	45	74

TABLE 6 (continued)
RELATED PROJECTS

No	Project	Address	Description	Trip Generation [a]					
				Weekday Evening Peak Hour			Saturday Midday Peak Hour		
				In	Out	Total	In	Out	Total
27	14th & Olive Mixed-Use	1340 S Olive St	156 apartments, 5,000 sf retail, and 10,000 sf restaurant	89	57	146	71	46	117
28	Mixed-Use Project	1334 S Flower St	188 apartments and 10,096 sf retail / restaurant	67	22	89	53	18	71
29	Figueroa Hotel	3101 S Figueroa St	275 hotel rooms and 1,178 sf bar	48	51	99	38	41	79
30	Apartment Project	1322 W Jefferson Blvd	80 residential units and 1,400 sf retail	34	16	50	27	13	40
31	Mixed-Use Project	720 W Washington Blvd	105 senior apartments and 2,650 sf retail	13	12	25	10	10	20
32	1370 S Flower Residential	1400 S Flower St	147 apartments and 6,921 sf retail	51	17	68	41	13	54
33	K-8 Charter School	1342 W Adams Blvd	500-student K-8 charter school	30	40	70	24	32	56
34	Medical Office	1122 W Washington Blvd	60,000 sf medical office building	57	146	203	45	117	162
35	Fig Project Mixed-Use	3900 S Figueroa St	408 student apartments, 298 hotel rooms and 66,500 sf commercial	348	399	747	335	263	598

[a] Related projects information and trip generation estimates provided by LADOT, June 2016.

TABLE 7
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project	
			V/C	LOS
1.	Normandie Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.773 0.674	C B
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.763 0.675	C B
3.	Vermont Avenue & Jefferson Boulevard	Wkdy Eve Sat Mid	0.840 0.579	D A
4.	Vermont Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.827 0.685	D B
5.	Vermont Avenue & 39th Street	Wkdy Eve Sat Mid	0.455 0.387	A A
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.824 0.743	D C
7.	Bill Robertson Lane & Exposition Boulevard	Wkdy Eve Sat Mid	0.391 0.428	A A
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.624 0.556	B A
9.	Hoover Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.563 0.505	A A
10.	Figueroa Street & Jefferson Boulevard	Wkdy Eve Sat Mid	0.893 0.561	D A
11.	Figueroa Street & Exposition Boulevard / 37th Street	Wkdy Eve Sat Mid	0.874 0.604	D B
12.	Figueroa Street & Flower Street	Wkdy Eve Sat Mid	0.617 0.462	B A
13.	Figueroa Street & 39th Street	Wkdy Eve Sat Mid	0.772 0.576	C A
14.	Figueroa Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	1.017 0.874	F D
15.	Flower Street / I-110 SB Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	0.465 0.287	A A
16.	Flower Street & 37th Street / I-110 SB On-ramp	Wkdy Eve Sat Mid	0.555 0.440	A A
17.	Hope Street / I-110 NB Off-ramp & 37th Street	Wkdy Eve Sat Mid	0.469 0.271	A A
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	0.691 0.215	B A
19.	I-110 SB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.729 0.599	C A
20.	Hill Street / I-110 NB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.888 0.616	D B

Chapter 6
Modified Project Traffic

This chapter describes the assumptions and methodology used in developing the traffic volumes associated with the proposed Modified Project within the Study Area.

MODIFIED PROJECT DESCRIPTION

As described in Chapter 1, the Lucas Museum Foundation, with USC as its Applicant, proposes to modify the Los Angeles Coliseum Renovation Project to accommodate the LMNA and associated parking structures and related improvements. The LMNA would be a one-of-a-kind gathering place to experience art collections, films, and exhibitions dedicated to visual storytelling and the evolution of art and moving images in a setting focused on narrative painting, illustration, photography, film, animation, and digital art. The LMNA would include numerous amenities such as a sit-down restaurant, state-of-the-art cinematic theaters, museum store, casual café, lecture halls of various sizes, digital classrooms, video conferencing for guest lectures and workshops, a drop-in library, several spaces available for event rental, and production quality editing classrooms. The LMNA's design strengthens the purpose of Exposition Park as a center of education, culture, and inspiration for Los Angeles residents, the students of the neighboring USC campus, and beyond.

The Modified Project consists of two distinct parts. The LMNA Site, generally bounded by Exposition Boulevard to the north, Bill Robertson Lane to the east, Leighton Avenue to the south, and Vermont Avenue to the east, would house the five-level, 299,717 sf LMNA and the Museum Parking Garage. This component would also include landscaping and other improvements to Jesse Brewer Park that would not generate any additional traffic. The LMNA Site is currently developed with two surface parking lots (Lots 2 and 3) totaling 1,297 spaces.

The Replacement Parking Site, immediately to the south of the LMNA Site and generally bounded by Leighton Avenue to the north, Bill Robertson Lane to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west, would consist of a City-operated soccer field (relocated from the northern boundary to the southern boundary of the Replacement Parking Site) and the Replacement Parking Garage. The Replacement Parking Site currently consists of Lot 1 with 394 surface parking spaces and the City-operated soccer field. Collectively, the LMNA Site and the Replacement Parking Site are referred to as the Modified Project Site. The conceptual Modified Project site plan is shown in Figure 1.

The Modified Project would be located between Vermont Avenue and Bill Robertson Lane on the west edge of Exposition Park. The Modified Project Site extends north and south of 39th Street with the LMNA structure built over 39th Street and the Museum Parking Garage built under 39th Street. 39th Street would be vacated between Vermont Avenue and Bill Robertson Lane and generally closed to public vehicular traffic, but would be opened during major events at Exposition Park[2] to provide additional access to Exposition Park.

Vehicular access to the Museum Parking Garage would be provided via two driveways on Bill Robertson Lane (one north and one south of 39th Street). Service access would also be provided on Bill Robertson Lane. Vehicular access to the Replacement Parking Garage would be provided via two driveways on Bill Robertson Lane and one on Vermont Avenue at Leighton Avenue, which would be signalized as part of the Modified Project.

MODIFIED PROJECT TRIP GENERATION

The number of trips expected to be generated by the Modified Project was estimated based on empirical data from the Los Angeles County Museum of Art (LACMA) as well as attendance projections developed by LMNA. Rates from ITE's *Trip Generation, 9th Edition* were also consulted during the development of the trip generation estimates for the Modified Project. However, the ITE rates were based on a one-day survey of a single museum, much smaller

[2] LMNA would open 39th Street to public access during Exposition Park events with attendance of 25,000 or more persons, such as football games at the Coliseum. At other times, 39th Street would operate as a walking plaza or a place for school buses to drop off students visiting the LMNA.

than the proposed Modified Project, located in Tennessee. These rates were determined not to be suitable for projecting the traffic that would be generated by the proposed Modified Project.

Design Day Attendance

Modified Project trip generation estimates were prepared for a "Design Day" based on attendance forecasts and empirical data from other museums within Los Angeles. The Design Day is intended to represent a 90th percentile attendance day – that is, a day that is busier than all but the top 10% of attendance days. LMNA forecasts that the LMNA will attract 1.2 million visitors per year, which is similar to annual attendance at LACMA and higher than attendance forecasts for the under-construction Academy Museum of Motion Pictures. Attendance data from LACMA consistently indicated that the 90th percentile attendance day was approximately 0.53% of the annual attendance, and when applied to the forecast annual attendance of 1.2 million visitors, the Design Day attendance at the Modified Project is approximately 6,400 visitors. This figure is applicable to both weekdays and Saturdays, as the Design Day is based on a particular attendance level rather than a day of the week.

Trip Generation

The Modified Project's daily and peak hour trip generation was estimated based on the number of daily visitors based on typical mode splits (i.e., method of travel) and hourly arrival and departure patterns for museums in the Los Angeles area. These factors were developed based on reasonable and conservative assumptions based on engineering judgment and experience with other museum traffic analyses.

The mode split assumptions were used to determine the total daily vehicle trips to and from the Modified Project Site. They include the percentages of visitors driving alone, carpooling in private vehicles, riding tour buses, or riding public transit. Additionally, it was assumed that 5% of visitors would already be at Exposition Park (i.e., to visit other museums or exhibition areas) and, therefore, would not separately drive to the Modified Project Site. Each type of travel mode produces vehicle trips at a different rate depending on the number of people occupying each vehicle. The average vehicle occupancy (AVO) ranges from one person per vehicle for a single-

occupant vehicle to 33 people per vehicle for a tour bus. Carpool vehicles (defined as any vehicle with more than one occupant) were assumed to have an AVO of 2.5, which is a conservatively low metric (e.g., in actuality the AVO for multi-occupant vehicles is typically higher, but the lower AVO results in higher trip generation estimates and therefore produces a conservative traffic analysis). Also, tour buses were assigned a passenger-car-equivalency (PCE) factor of 2.0, with which each tour bus trip counted for two standard vehicle trips to account for the larger size and slower movements of such a vehicle. The visitor mode split assumptions are summarized in Table 8.

The hourly arrival and departure patterns assume that LMNA visitors begin arriving before opening (10:00 AM) and begin leaving after noon. As shown in Table 9, between 5% and 20% of daily visitors arrive each hour between 9:00 AM and 7:00 PM and between 5% and 15% of daily visitors leave each hour between noon and 9:00 PM. These patterns are applicable both to weekday and Saturday attendance patterns. During the evening peak hour, between 5:00 PM and 6:00 PM, 5% of daily visitors would arrive and 10% would depart. During the midday peak hour, between 1:00 PM and 2:00 PM, 15% would arrive and 10% would depart. The peak hours were identified based on the busiest traffic conditions found in the peak period traffic counts presented in Appendix B.

As shown in Table 10, applying the total daily vehicle trips from Table 8 to the hourly arrival and departure patterns from Table 9, the Modified Project is expected to generate a net total of 245 new weekday evening peak hour trips (82 inbound, 163 outbound) and 408 new Saturday midday peak hour trips (163 inbound, 245 outbound). It should be noted that the process described herein used to estimate Modified Project trip generation produces a substantially higher estimate than would have been produced using the ITE trip generation rates mentioned above.

MODIFIED PROJECT TRIP DISTRIBUTION

The geographic distribution of traffic to and from the Modified Project Site assumes that the Modified Project would draw patrons from throughout the region. Locals and tourists alike are assumed to primarily travel to and from the Modified Project Site via the freeway system, often using the most direct routes from the freeway to the Modified Project Site. Therefore, much of the

traffic would come from I-110 using the freeway ramp systems at Exposition Boulevard, 39th Street (via the high-occupancy-vehicle / toll lanes on I-110 south of the Study Area), and Martin Luther King Jr. Boulevard. Some would come from I-10 via the ramps at Vermont Avenue, and the remainder would be via local streets. Generally, the Modified Project's traffic distribution pattern is as follows:

- 38% to/from the north on I-110
- 15% to/from the south on I-110 using general-flow lanes
- 15% to/from the south on I-110 using express lanes
- 17% to/from the north on surface streets
- 5% to/from the south on surface streets
- 10% to/from the west on surface streets

Figure 7 details the trip distribution pattern at each of the study intersections.

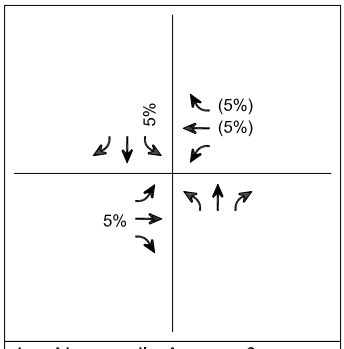
MODIFIED PROJECT TRIP ASSIGNMENT

The Modified Project trip generation estimates summarized in Table 10 and the trip distribution pattern shown in Figure 7 were used to assign the Modified Project-generated traffic through the study intersections. Figure 8 details the Modified Project-only traffic volumes at the study intersections during typical weekday evening and Saturday mid-day peak hours based on this pattern.

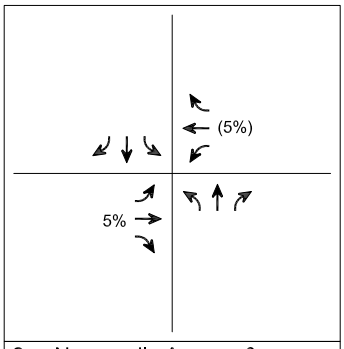
39TH STREET TRAFFIC

39th street would be vacated and closed to through traffic between Vermont Avenue and Bill Robertson Lane as part of the Modified Project. The traffic currently using that stretch of roadway, based on the existing traffic volumes at that intersection, were redistributed on Bill Robertson Lane, Vermont Avenue, Exposition Boulevard, and Martin Luther King Jr. Boulevard. This redistributed traffic is shown at each of the study intersections in Figure 9, and was included in the analysis of Existing with Project Conditions and Future with Project Conditions.

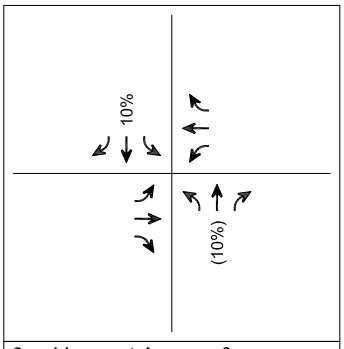
Based on the existing traffic counts at the intersection of Vermont Avenue & 39th Street shown in Figure 4, it appears that approximately half of the traffic leaving Exposition Park via 39th Street during the weekday evening peak hour travels westbound on 39th Street into a residential neighborhood. It is unlikely that this volume of traffic is destined for that neighborhood, suggesting that it is cut-through traffic, which is generally undesirable in a residential setting. Because the Modified Project would close 39th Street to through traffic (outside of major event conditions), cut-through traffic on 39th Street west of Vermont Avenue would be reduced.



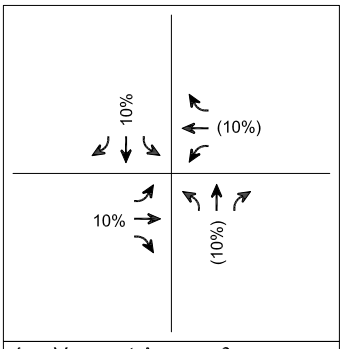
1. Normandie Avenue & Exposition Boulevard



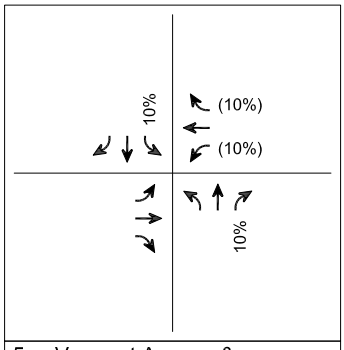
2. Normandie Avenue & Martin Luther King Jr. Blvd



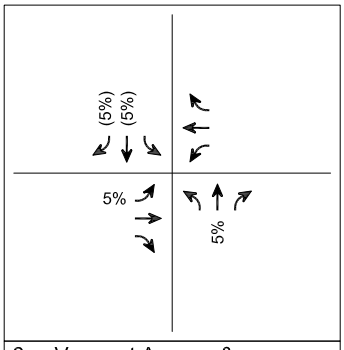
3. Vermont Avenue & Jefferson Boulevard



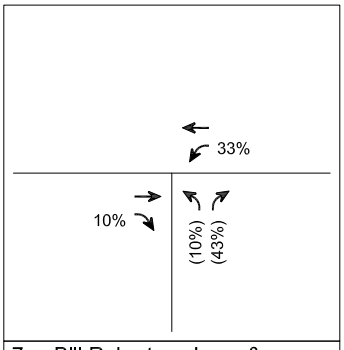
4. Vermont Avenue & Exposition Boulevard



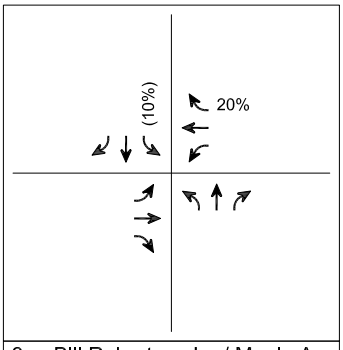
5. Vermont Avenue & 39th Street



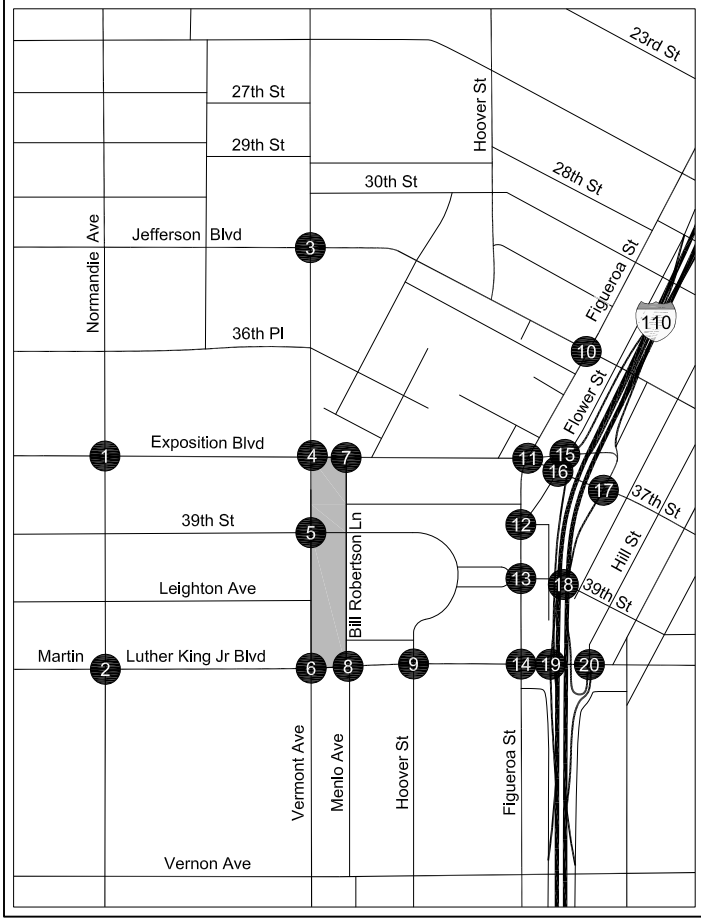
6. Vermont Avenue & Martin Luther King Jr. Blvd

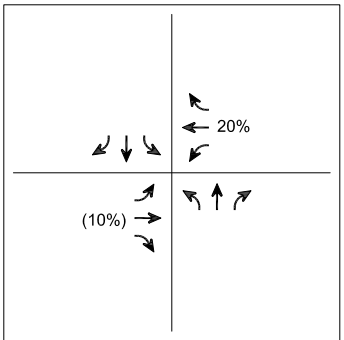


7. Bill Robertson Lane & Exposition Boulevard

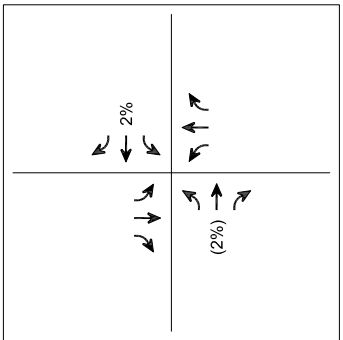


8. Bill Robertson Ln / Menlo Ave & Martin Luther King Jr. Blvd





9. Hoover Street & Martin Luther King Jr. Blvd



10. Figueroa Street & Jefferson Boulevard

LEGEND

Modified Project Site

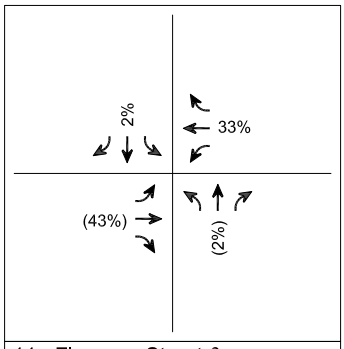
Study Intersection

X%(X%) Inbound(Outbound) Trip Percentage

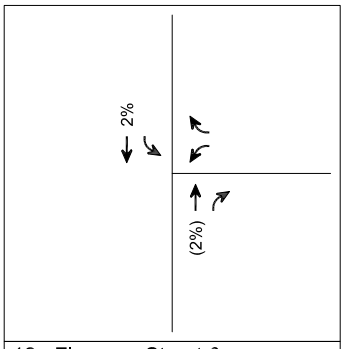
N
Not to Scale

TRIP DISTRIBUTION

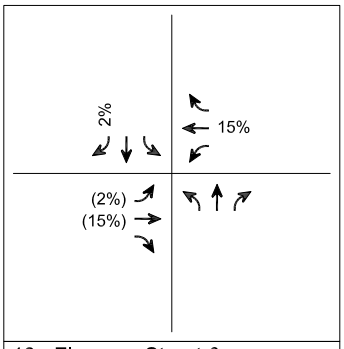
FIGURE 7



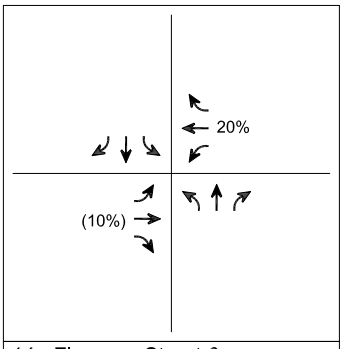
11. Figueroa Street & Exposition Blvd / 37th Street



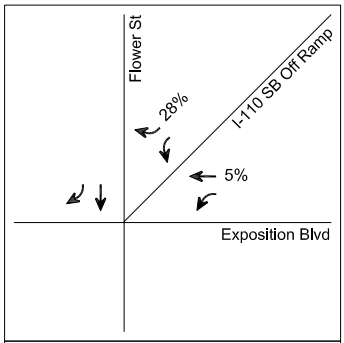
12. Figueroa Street & Flower Street



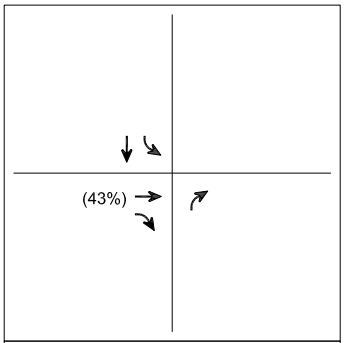
13. Figueroa Street & 39th Street



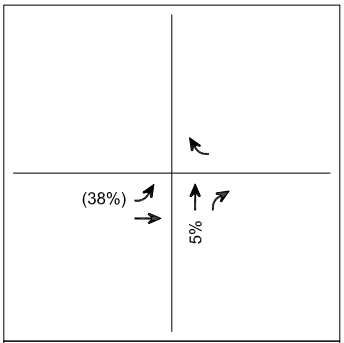
14. Figueroa Street & Martin Luther King Jr. Blvd



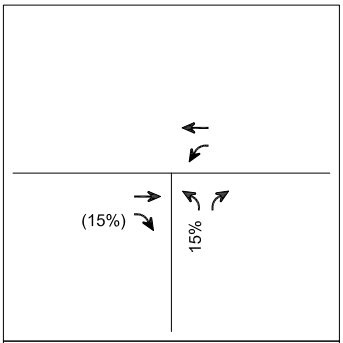
15. Flower Street / I-110 SB Off-ramp & Exposition Boulevard



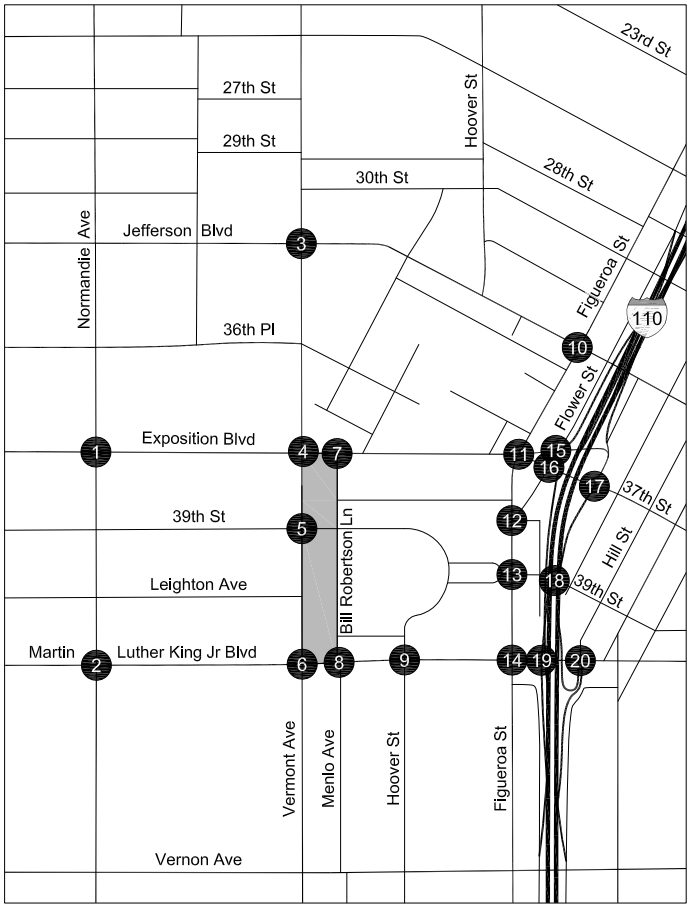
16. Flower Street & 37th Street / I-110 Southbound On-ramp

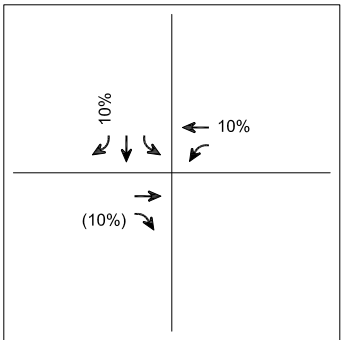


17. Hope Street & I-110 NB Off-ramp & 37th Street

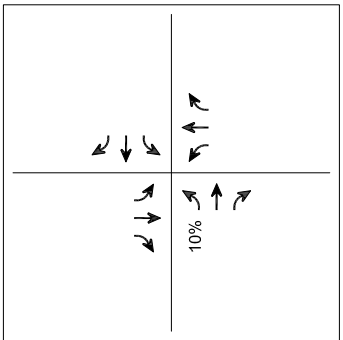


18. I-110 HOV Ramps & 39th Street





19. I-110 SB Ramps & Martin Luther King Jr. Blvd



20. Hill Street / I-110 NB Ramps & Martin Luther King Jr. Blvd

LEGEND

Modified Project Site

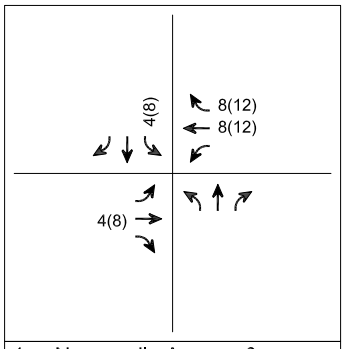
Study Intersection

X%(X%) Inbound(Outbound) Trip Percentage

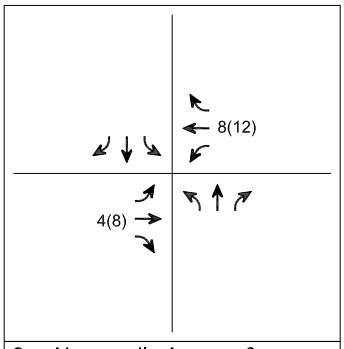
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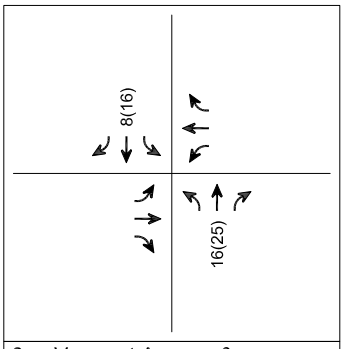
FIGURE 7 (CONT.)



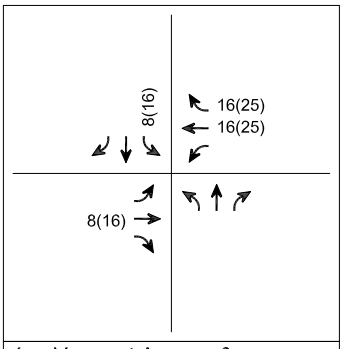
1. Normandie Avenue & Exposition Boulevard



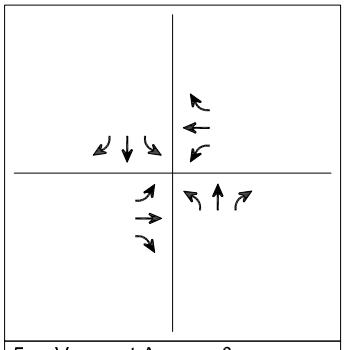
2. Normandie Avenue & Martin Luther King Jr. Blvd



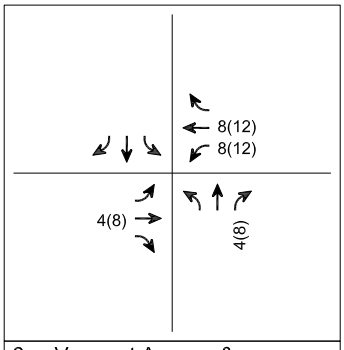
3. Vermont Avenue & Jefferson Boulevard



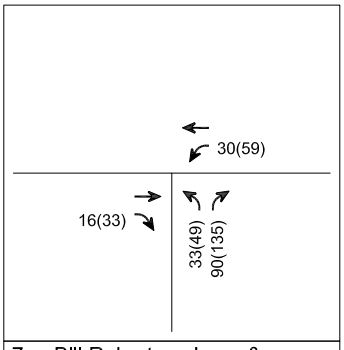
4. Vermont Avenue & Exposition Boulevard



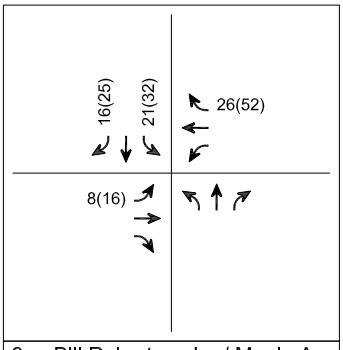
5. Vermont Avenue & 39th Street



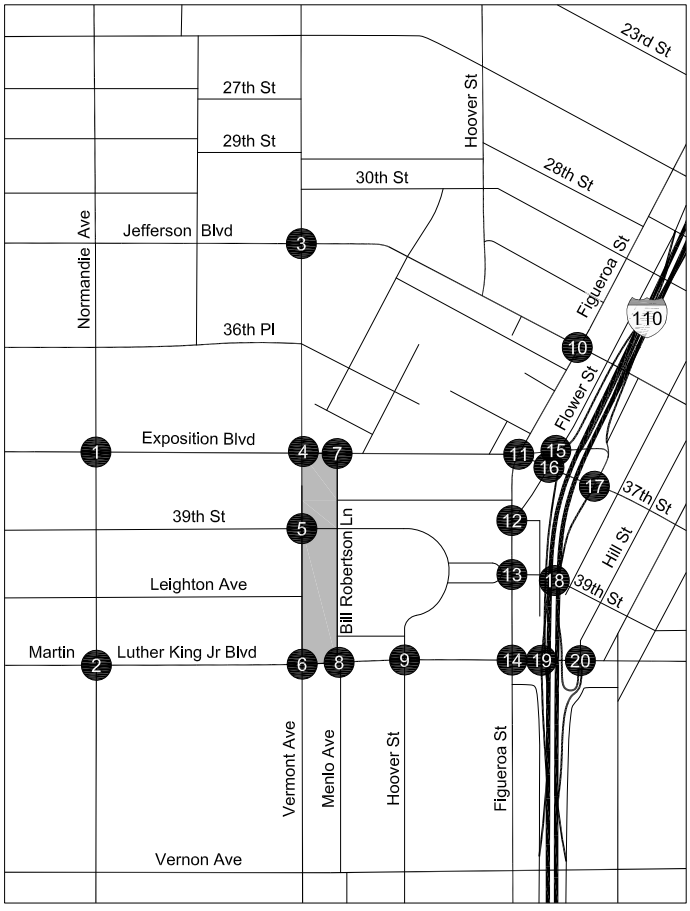
6. Vermont Avenue & Martin Luther King Jr. Blvd

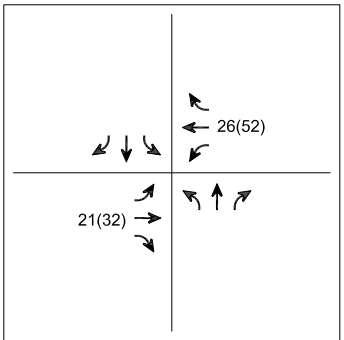


7. Bill Robertson Lane & Exposition Boulevard

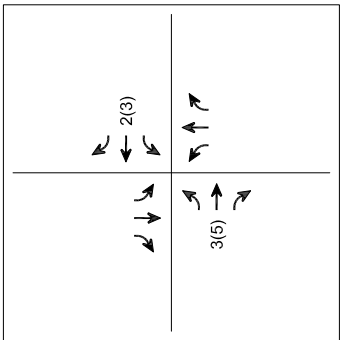


8. Bill Robertson Ln / Menlo Ave & Martin Luther King Jr. Blvd





9. Hoover Street & Martin Luther King Jr. Blvd



10. Figueroa Street & Jefferson Boulevard

LEGEND

Modified Project Site

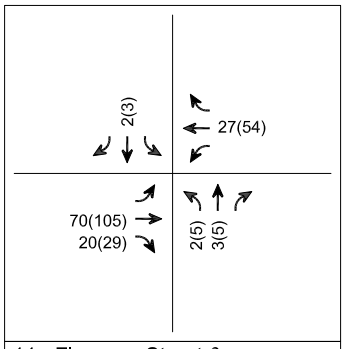
Study Intersection

X(X) Weekday Evening (Saturday Midday) Peak Hour Traffic Volumes

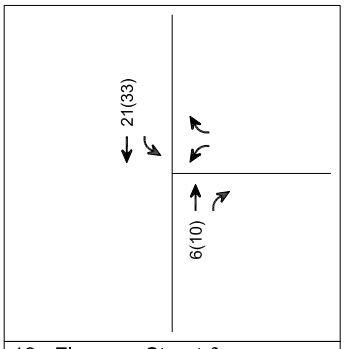
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PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

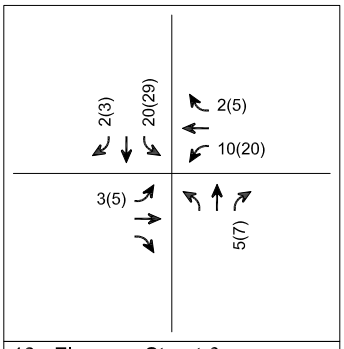
FIGURE
8



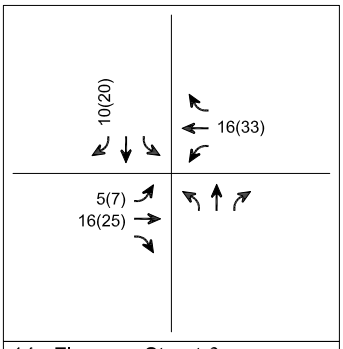
11. Figueroa Street & Exposition Blvd / 37th Street



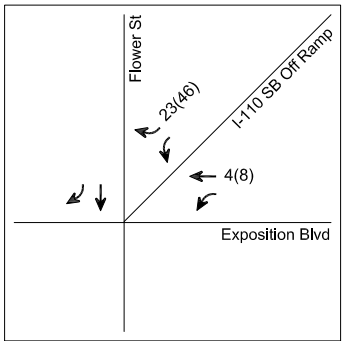
12. Figueroa Street & Flower Street



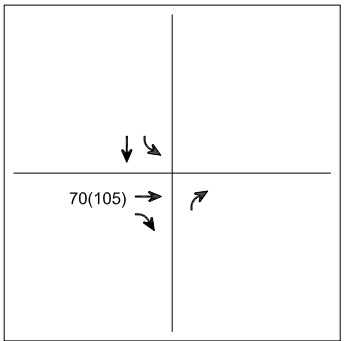
13. Figueroa Street & 39th Street



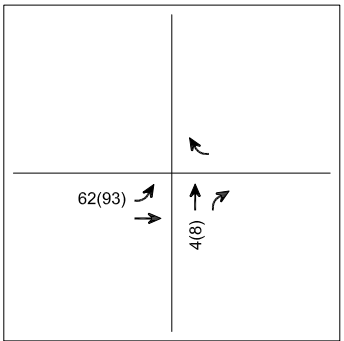
14. Figueroa Street & Martin Luther King Jr. Blvd



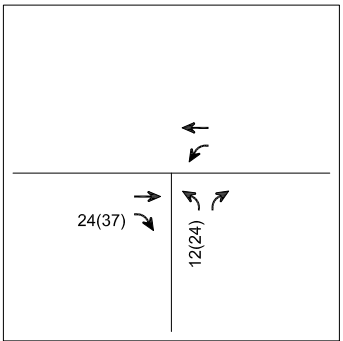
15. Flower Street / I-110 SB Off-ramp & Exposition Boulevard



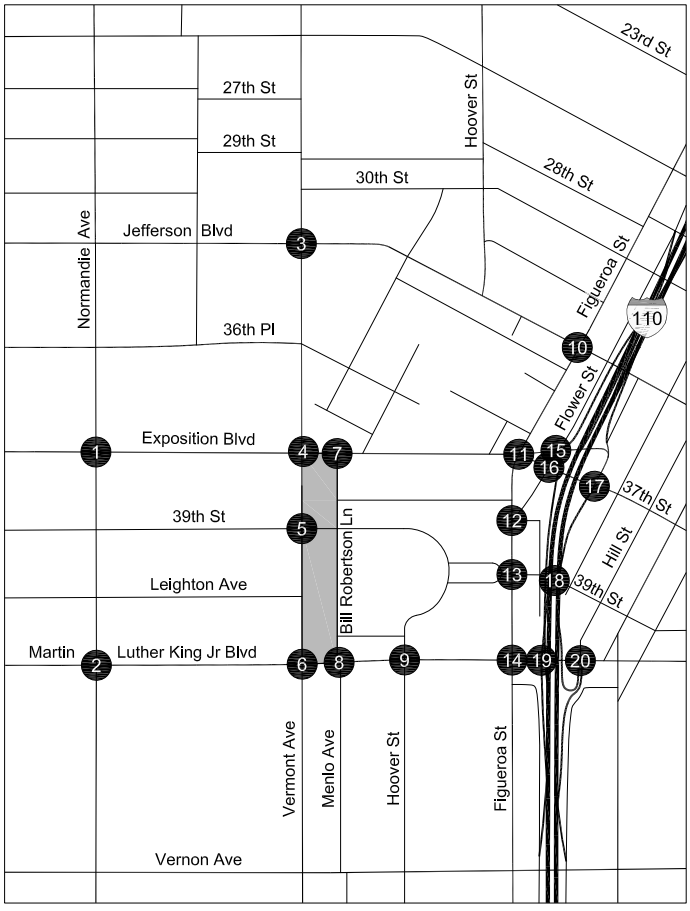
16. Flower Street & 37th Street / I-110 Southbound On-ramp

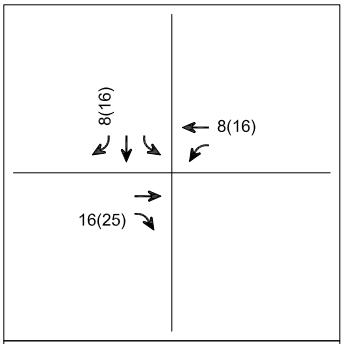


17. Hope Street & I-110 NB Off-ramp & 37th Street

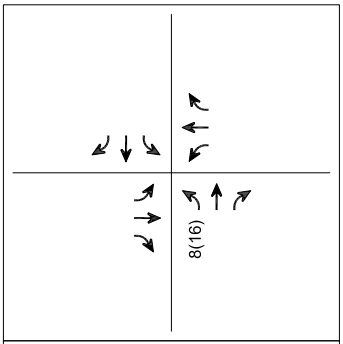


18. I-110 HOV Ramps & 39th Street





19. I-110 SB Ramps & Martin Luther King Jr. Blvd



20. Hill Street / I-110 NB Ramps & Martin Luther King Jr. Blvd

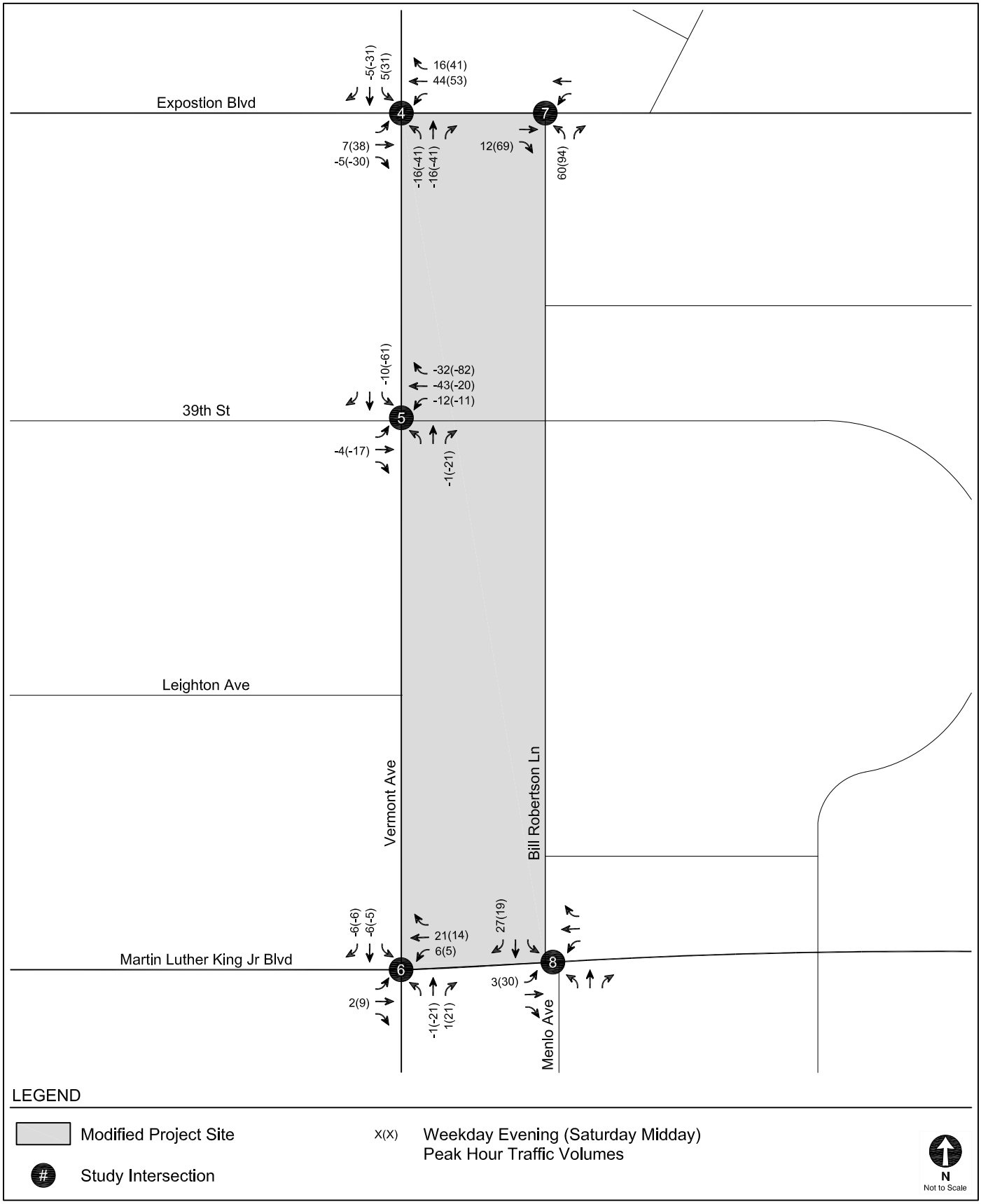
LEGEND

- Modified Project Site
- # Study Intersection
- X(X) Weekday Evening (Saturday Midday) Peak Hour Traffic Volumes

N
Not to Scale

PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
8 (CONT.)



39TH STREET TRAFFIC REDISTRIBUTION

FIGURE 9

TABLE 8
DAILY TRIP GENERATION CALCULATIONS

Travel Mode	Mode Share [a]	Person Trips [b]	Vehicle Occupancy [c]	Daily Vehicle Trips	Passenger Car Equivalency [d]	Daily PCE Trips
Drive Alone	2%	128	1.0	128	1.0	128
Carpool	57%	3,648	2.5	1,459	1.0	1,459
Tour Bus	9%	576	33.0	17	2.0	34
School Bus	4%	256	40.0	6	2.0	12
Public Transit	23%	1,472	n/a	n/a	n/a	n/a
Walk/Bicycle/Internal Trip [e]	5%	320	n/a	n/a	n/a	n/a
Total	**100%**	**6,400**	**n/a**	**1,610**	**n/a**	**1,633**

[a] Mode share represents the percentage of daily visitors to use each travel mode to and from the Museum.
[b] Person trips is based on 6,400 Design Day visitors.
[c] Vehicle occupancy represents the average number of passengers within each vehicle type.
[d] Passenger car equivalency, or PCE, is an adjustment factor to account for the larger size and slower movements of buses as compared with passenger vehicles.
[e] Internal trips represent visitors who walk in from other attractions within Exposition Park.

TABLE 9
PEAK HOUR TRIP GENERATION CALCULATIONS

Time of Day	Arrival Pattern	Hourly Arrivals	Departure Pattern	Hourly Departures	Hourly Totals
9:00 - 10:00 AM	5%	82	0%	0	82
10:00 - 11:00 AM	20%	327	0%	0	327
11:00 AM - 12:00 PM	15%	245	0%	0	245
12:00 - 1:00 PM	15%	245	10%	163	408
1:00 - 2:00 PM (Midday Peak) [a]	**10%**	**163**	**15%**	**245**	**408**
2:00 - 3:00 PM	10%	163	15%	245	408
3:00 - 4:00 PM	10%	163	15%	245	408
4:00 - 5:00 PM	5%	82	10%	163	245
5:00 - 6:00 PM (Evening Peak) [b]	**5%**	**82**	**10%**	**163**	**245**
6:00 - 7:00 PM	5%	82	10%	163	245
7:00 - 8:00 PM	0%	0	10%	163	163
8:00 - 9:00 PM	0%	0	5%	82	82
Total	**100%**	**1,633**	**100%**	**1,633**	**3,266**

[a] Midday peak hour of 1:00 PM to 2:00 PM was chosen based on typical peak hour shown in Saturday traffic counts.

[b] Evening peak hour of 5:00 PM to 6:00 PM was chosen based on typical peak hour shown in weekday traffic counts.

TABLE 10
MODIFIED PROJECT TRIP GENERATION ESTIMATES

Peak Hour	In	Out	Total
Weekday Evening	82	163	245
Saturday Midday	163	245	408

Chapter 7
Existing with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Modified Project when compared to Existing Conditions in Year 2016. The analysis corresponds with the Existing Conditions data and analysis presented in Chapter 2. The Existing Conditions are defined by the existing traffic volumes, roadways, and intersection configurations. The Existing with Project Conditions reflect Existing Conditions with the addition of Modified Project traffic.

EXISTING WITH PROJECT INTERSECTION OPERATING CONDITIONS

The Modified Project-only weekday evening and Saturday midday peak hour traffic volumes described in Chapter 4 and shown in Figure 8 were added to the Existing weekday evening and Saturday midday peak hour traffic volumes shown in Figure 4. The 39th Street redistribution volumes, shown in Figure 9, were also added in. The resulting volumes are illustrated in Figure 10 and represent Existing with Project Conditions after development of the Modified Project under Existing Conditions.

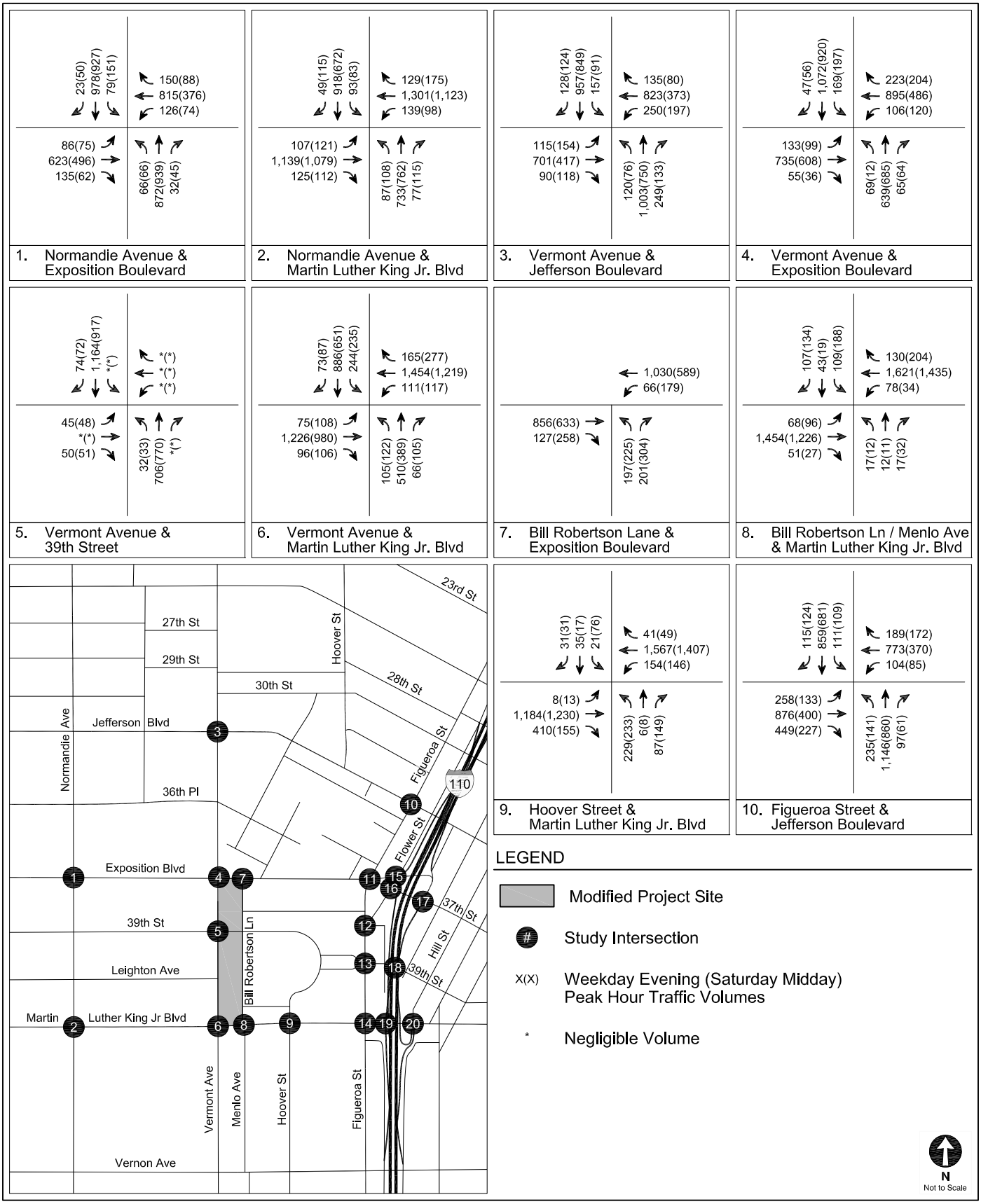
Table 11 summarizes the results of the Existing with Project Conditions during the weekday evening and Saturday midday peak hours for the 20 study intersections. As shown, all study intersections would continue to operate at LOS D or better with the Modified Project, as under Existing Conditions.

SIGNIFICANT INTERSECTION IMPACTS

As discussed in Chapter 1, LADOT has established threshold criteria used to determine whether the impact of Modified Project traffic to a study intersection is significant or not. An intersection

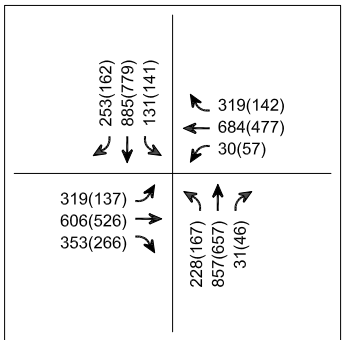
operating at LOS A or B after the addition of Modified Project traffic would not be significantly impacted, regardless of the volume of traffic added to that intersection by the Modified Project or the incremental change to V/C ratio. An intersection operating at LOS C, D, E, or F after the addition of Modified Project traffic would be impacted if the incremental change in V/C ratio due to the Modified Project exceeds the thresholds described in Chapter 1.

As shown in Table 11, none of the study intersections would be significantly impacted by Modified Project traffic during either peak hour. Therefore, no mitigation measures are required.

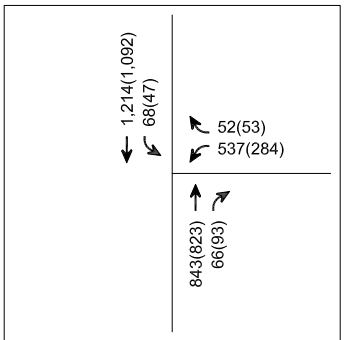


EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

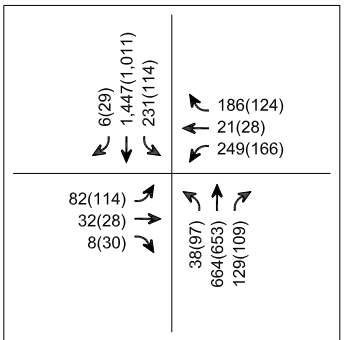
FIGURE 10



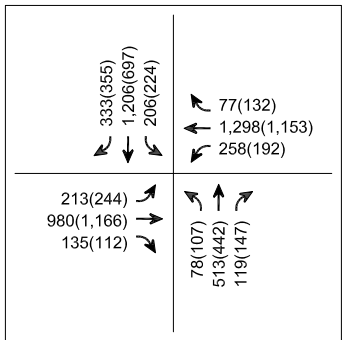
11. Figueroa Street & Exposition Blvd / 37th Street



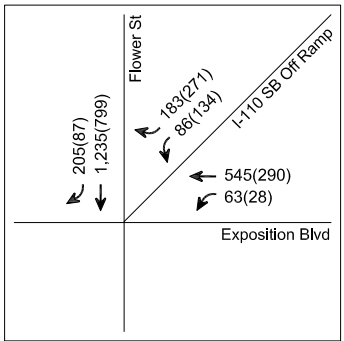
12. Figueroa Street & Flower Street



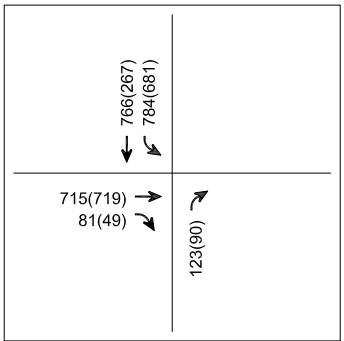
13. Figueroa Street & 39th Street



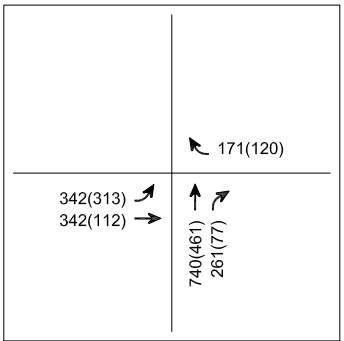
14. Figueroa Street & Martin Luther King Jr. Blvd



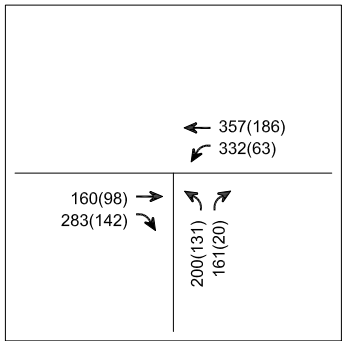
15. Flower Street / I-110 SB Off-ramp & Exposition Boulevard



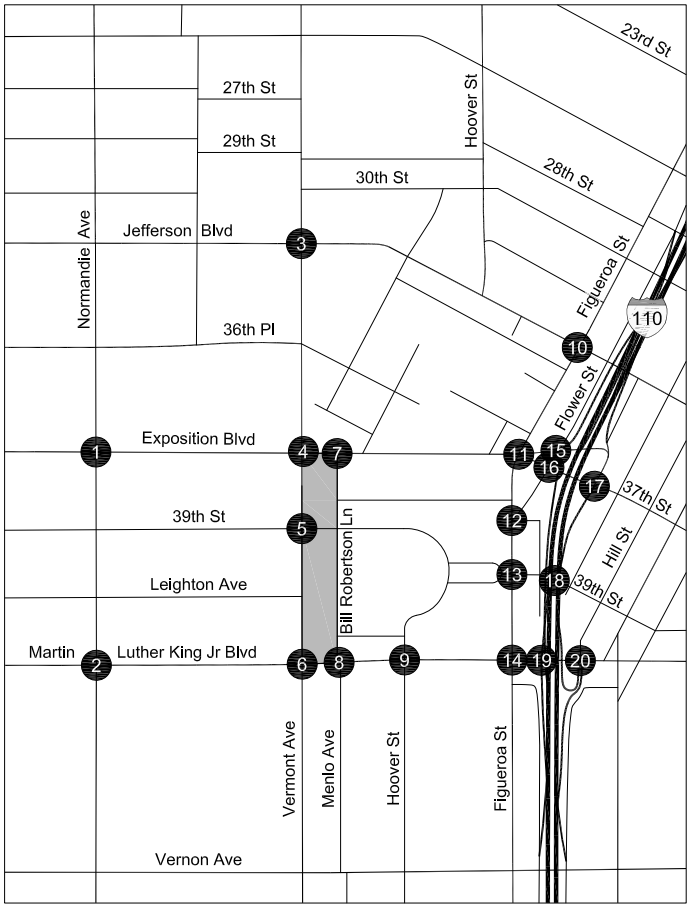
16. Flower Street & 37th Street / I-110 Southbound On-ramp

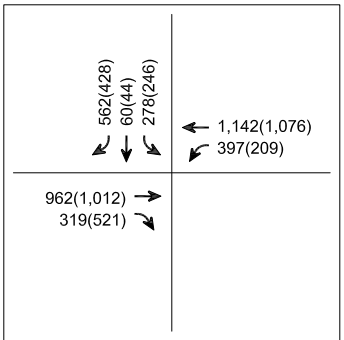


17. Hope Street & I-110 NB Off-ramp & 37th Street

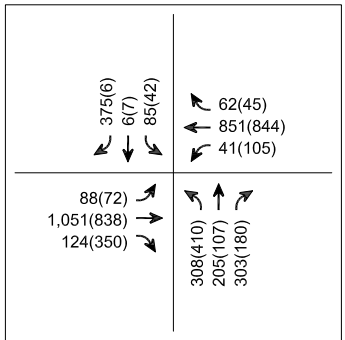


18. I-110 HOV Ramps & 39th Street





19. I-110 SB Ramps & Martin Luther King Jr. Blvd



20. Hill Street / I-110 NB Ramps & Martin Luther King Jr. Blvd

LEGEND

- Modified Project Site
- # Study Intersection
- X(X) Weekday Evening (Saturday Midday) Peak Hour Traffic Volumes
- * Negligible Volume

N
Not to Scale

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10 (CONT.)

TABLE 11
EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
INTERSECTION LEVELS OF SERVICE AND SIGNIFICANT IMPACTS

No	Intersection	Peak Hour	Existing		Existing with Project			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact
1.	Normandie Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.720 0.616	C B	0.726 0.624	C B	0.006 0.008	NO NO
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.722 0.637	C B	0.723 0.640	C B	0.001 0.003	NO NO
3.	Vermont Avenue & Jefferson Boulevard	Wkdy Eve Sat Mid	0.784 0.525	C A	0.787 0.529	C A	0.003 0.004	NO NO
4.	Vermont Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.755 0.609	C B	0.763 0.637	C B	0.008 0.028	NO NO
5.	Vermont Avenue & 39th Street	Wkdy Eve Sat Mid	0.422 0.359	A A	0.397 0.318	A A	-0.025 -0.041	NO NO
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.770 0.696	C B	0.773 0.699	C B	0.003 0.003	NO NO
7.	Bill Robertson Lane & Exposition Boulevard	Wkdy Eve Sat Mid	0.339 0.380	A A	0.433 0.552	A A	0.094 0.172	NO NO
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.578 0.516	A A	0.621 0.567	B A	0.043 0.051	NO NO
9.	Hoover Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.527 0.470	A A	0.531 0.477	A A	0.004 0.007	NO NO
10.	Figueroa Street & Jefferson Boulevard	Wkdy Eve Sat Mid	0.691 0.384	B A	0.692 0.385	B A	0.001 0.001	NO NO
11.	Figueroa Street & Exposition Boulevard / 37th Street	Wkdy Eve Sat Mid	0.752 0.509	C A	0.764 0.533	C A	0.012 0.024	NO NO
12.	Figueroa Street & Flower Street	Wkdy Eve Sat Mid	0.421 0.307	A A	0.423 0.310	A A	0.002 0.003	NO NO
13.	Figueroa Street & 39th Street	Wkdy Eve Sat Mid	0.448 0.341	A A	0.451 0.347	A A	0.003 0.006	NO NO
14.	Figueroa Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.808 0.704	D C	0.818 0.720	D C	0.010 0.016	NO NO
15.	Flower Street / I-110 SB Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	0.386 0.233	A A	0.393 0.253	A A	0.007 0.020	NO NO
16.	Flower Street & 37th Street / I-110 SB On-ramp	Wkdy Eve Sat Mid	0.391 0.320	A A	0.400 0.334	A A	0.009 0.014	NO NO
17.	Hope Street / I-110 NB Off-ramp & 37th Street	Wkdy Eve Sat Mid	0.361 0.193	A A	0.386 0.231	A A	0.025 0.038	NO NO
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	0.527 0.098	A A	0.551 0.137	A A	0.024 0.039	NO NO
19.	I-110 SB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.651 0.531	B A	0.657 0.546	B A	0.006 0.015	NO NO
20.	Hill Street / I-110 NB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.825 0.543	D A	0.825 0.549	D A	0.000 0.006	NO NO

Chapter 8
Future with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Modified Project when compared to future cumulative (Future without Project) conditions. The analysis year of 2021 corresponds to the anticipated buildout year of the Modified Project. All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) described in Chapter 3 are incorporated into this analysis, along with the infrastructure improvements that were assumed to be complete by year 2021, including the lane reductions resulting from the MyFigueroa Streetscape Project.

FUTURE WITH PROJECT INTERSECTION OPERATING CONDITIONS

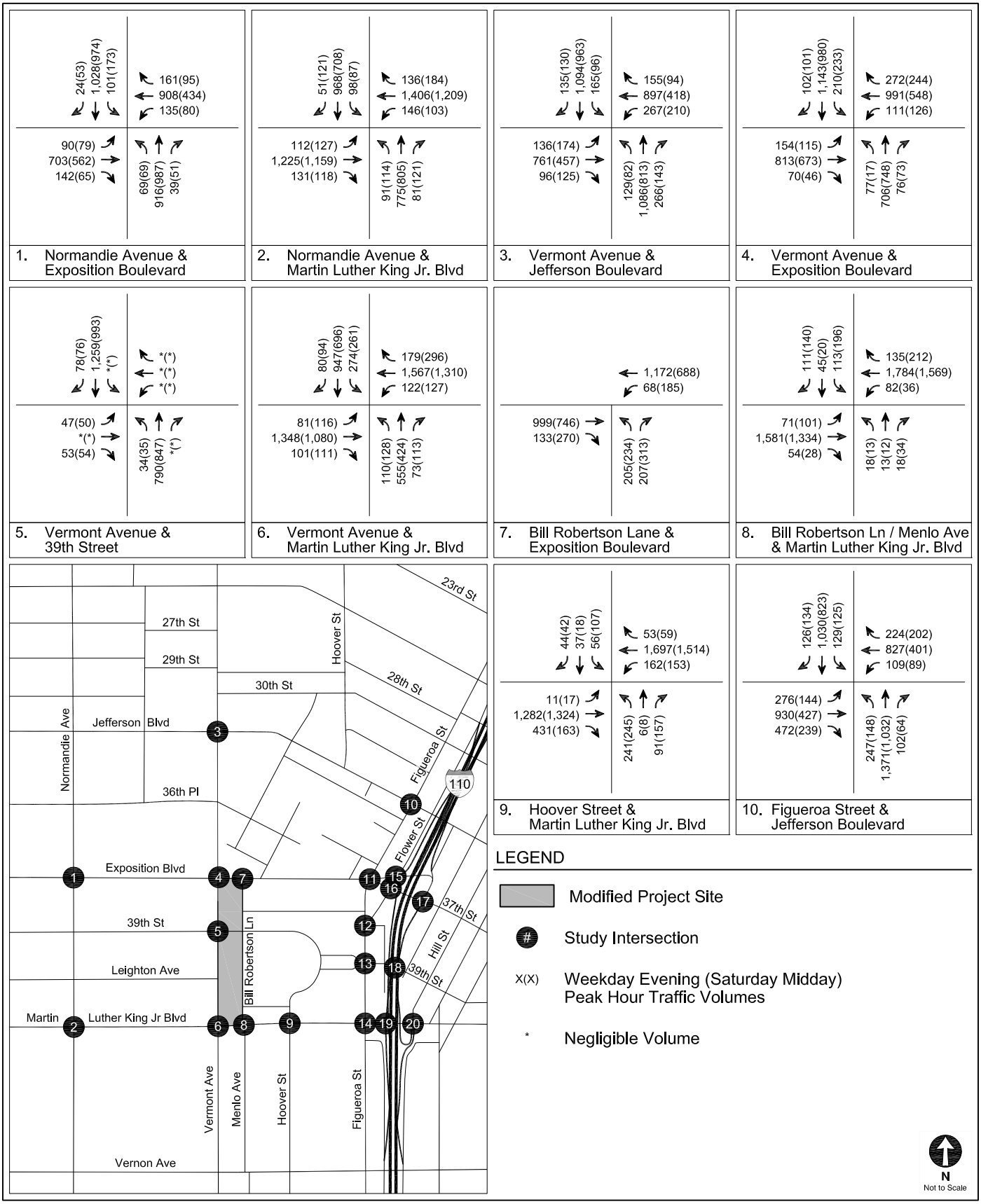
The Modified Project-only weekday evening and Saturday midday peak hour traffic volumes described in Chapter 4 and shown in Figure 8 were added to the Future without Project peak hour traffic volumes shown in Figure 6. The 39th Street redistribution volumes, shown in Figure 9, were also added in after increasing them by 5.10% to account for ambient traffic growth. The resulting volumes are illustrated in Figure 11 and represent Future with Project Conditions after development of the Modified Project in the year 2021.

Table 12 summarizes the results of the Future with Project Conditions during the weekday evening and Saturday midday peak hours for the 20 study intersections. As shown, the Modified Project would not cause any intersection to worsen beyond LOS C conditions. Intersection #14, Figueroa Street & Martin Luther King Jr. Boulevard, is forecast to operate at LOS F during the weekday evening peak hour, without and with Modified Project traffic.

SIGNIFICANT INTERSECTION IMPACTS

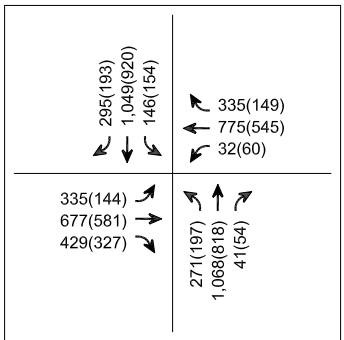
As discussed in Chapter 1, LADOT has established threshold criteria used to determine whether the impact of Modified Project traffic to a study intersection is significant or not. An intersection operating at LOS A or B after the addition of Modified Project traffic would not be significantly impacted, regardless of the volume of traffic added to that intersection by the Modified Project or the incremental change to V/C ratio. An intersection operating at LOS C, D, E, or F after the addition of Modified Project traffic would be impacted if the incremental change in V/C ratio due to the Modified Project exceeds the thresholds described in Chapter 1.

As shown in Table 12, none of the study intersections would be significantly impacted by Modified Project traffic during either peak hour. Therefore, no mitigation measures are required.

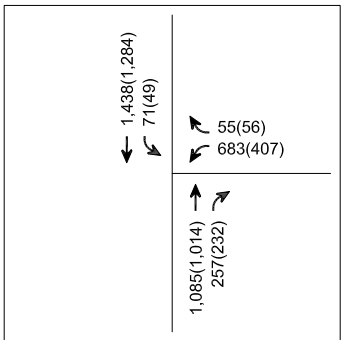


FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

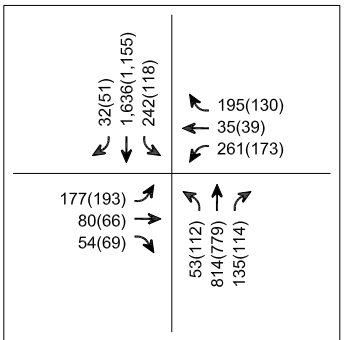
FIGURE 11



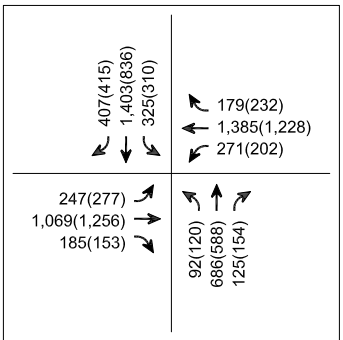
11. Figueroa Street & Exposition Blvd / 37th Street



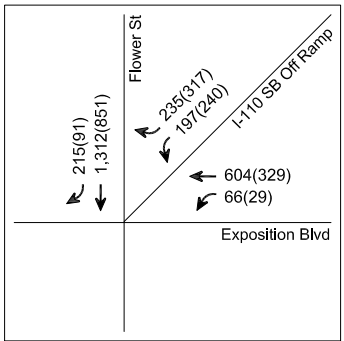
12. Figueroa Street & Flower Street



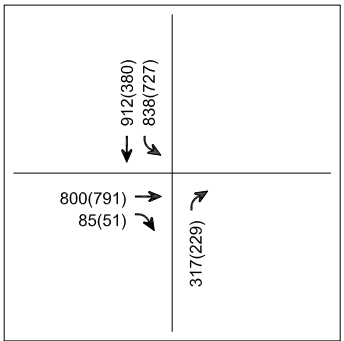
13. Figueroa Street & 39th Street



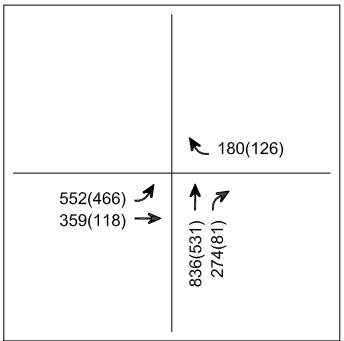
14. Figueroa Street & Martin Luther King Jr. Blvd



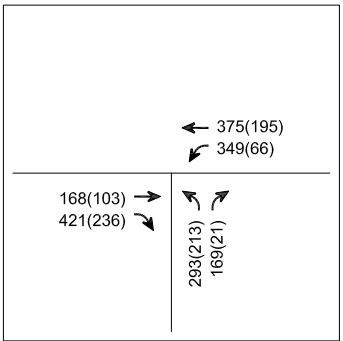
15. Flower Street / I-110 SB Off-ramp & Exposition Boulevard



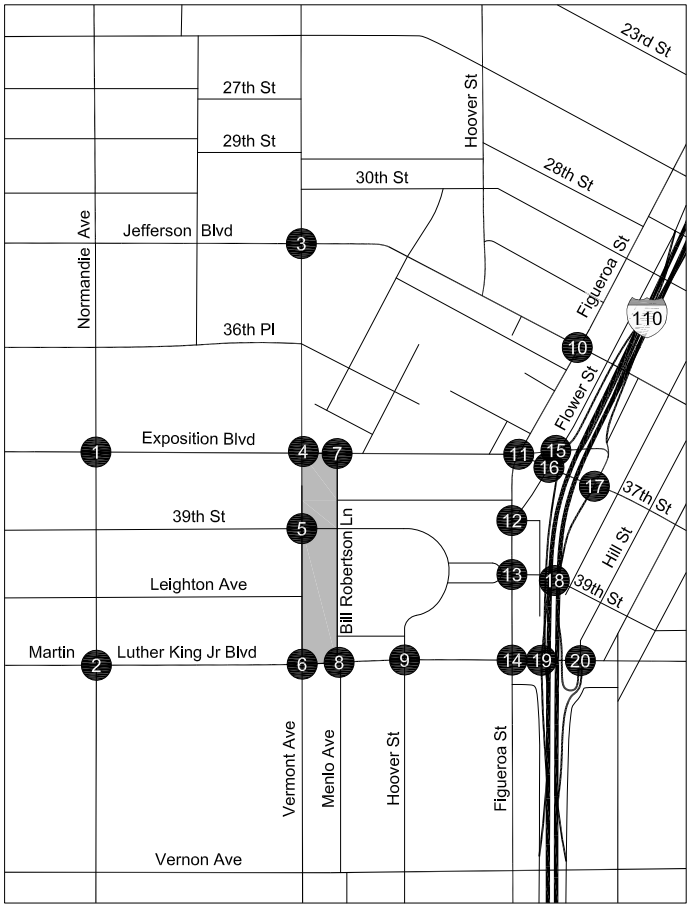
16. Flower Street & 37th Street / I-110 Southbound On-ramp

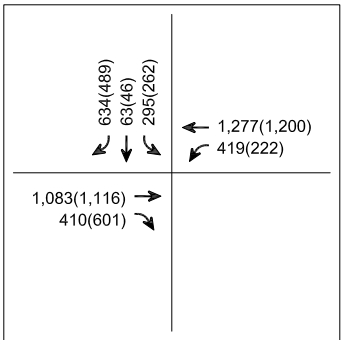


17. Hope Street & I-110 NB Off-ramp & 37th Street

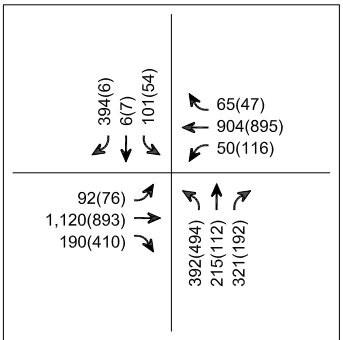


18. I-110 HOV Ramps & 39th Street





19. I-110 SB Ramps & Martin Luther King Jr. Blvd



20. Hill Street / I-110 NB Ramps & Martin Luther King Jr. Blvd

LEGEND

- Modified Project Site
- # Study Intersection
- X(X) Weekday Evening (Saturday Midday) Peak Hour Traffic Volumes
- * Negligible Volume

N
Not to Scale

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
11 (CONT.)

TABLE 12
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
INTERSECTION LEVELS OF SERVICE AND SIGNIFICANT IMPACTS

No	Intersection	Peak Hour	Future Without Project		Future with Project			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact
1.	Normandie Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.773 0.674	C B	0.779 0.683	C B	0.006 0.009	NO NO
2.	Normandie Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.763 0.675	C B	0.765 0.678	C B	0.002 0.003	NO NO
3.	Vermont Avenue & Jefferson Boulevard	Wkdy Eve Sat Mid	0.840 0.579	D A	0.843 0.583	D A	0.003 0.004	NO NO
4.	Vermont Avenue & Exposition Boulevard	Wkdy Eve Sat Mid	0.827 0.685	D B	0.835 0.714	D C	0.008 0.029	NO NO
5.	Vermont Avenue & 39th Street	Wkdy Eve Sat Mid	0.455 0.387	A A	0.429 0.344	A A	-0.026 -0.043	NO NO
6.	Vermont Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.824 0.743	D C	0.827 0.750	D C	0.003 0.007	NO NO
7.	Bill Robertson Lane & Exposition Boulevard	Wkdy Eve Sat Mid	0.391 0.428	A A	0.485 0.601	A B	0.094 0.173	NO NO
8.	Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.624 0.556	B A	0.667 0.607	B B	0.043 0.051	NO NO
9.	Hoover Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.563 0.505	A A	0.568 0.512	A A	0.005 0.007	NO NO
10.	Figueroa Street & Jefferson Boulevard	Wkdy Eve Sat Mid	0.893 0.561	D A	0.895 0.563	D A	0.002 0.002	NO NO
11.	Figueroa Street & Exposition Boulevard / 37th Street	Wkdy Eve Sat Mid	0.874 0.604	D B	0.885 0.628	D B	0.011 0.024	NO NO
12.	Figueroa Street & Flower Street	Wkdy Eve Sat Mid	0.617 0.462	B A	0.624 0.473	B A	0.007 0.011	NO NO
13.	Figueroa Street & 39th Street	Wkdy Eve Sat Mid	0.772 0.576	C A	0.773 0.580	C A	0.001 0.004	NO NO
14.	Figueroa Street & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	1.017 0.874	F D	1.025 0.887	F D	0.008 0.013	NO NO
15.	Flower Street / I-110 SB Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	0.465 0.287	A A	0.472 0.307	A A	0.007 0.020	NO NO
16.	Flower Street & 37th Street / I-110 SB On-ramp	Wkdy Eve Sat Mid	0.555 0.440	A A	0.565 0.455	A A	0.010 0.015	NO NO
17.	Hope Street / I-110 NB Off-ramp & 37th Street	Wkdy Eve Sat Mid	0.469 0.271	A A	0.494 0.308	A A	0.025 0.037	NO NO
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	0.691 0.215	B A	0.715 0.256	C A	0.024 0.041	NO NO
19.	I-110 SB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.729 0.599	C A	0.735 0.621	C B	0.006 0.022	NO NO
20.	Hill Street / I-110 NB Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	0.888 0.616	D B	0.888 0.624	D B	0.000 0.008	NO NO

Chapter 9
Caltrans Analysis

This chapter presents an analysis of Caltrans facilities, including freeway mainline segments, Caltrans intersections, off-ramp queuing, and on-ramp capacity to provide further information to the decision makers. In accordance with Caltrans guidelines, Long Range Year 2035 Conditions were analyzed corresponding to the analysis year of Mobility 2035, along with Existing Year 2016 Conditions and Future Year 2021 Conditions.

ANALYZED FACILITIES

As discussed above, four types of analysis were conducted on Caltrans facilities. Three freeway mainline segments on I-110 were analyzed, along with the express lanes on I-110, using HCM methodology to determine density, speed, and LOS. Six intersections at freeway ramps were analyzed using HCM methodology to identify average vehicle delay and LOS. Five freeway off-ramps were analyzed to determine whether the vehicle queue would extend beyond the ramp onto the freeway. Five freeway on-ramps were reviewed to ensure that the ramp volumes do not exceed 900 vehicles per hour per lane (vphpl), which is the Caltrans target limit. The analyzed facilities are listed in Table 13. Appendix D contains the LOS worksheets for each type of analysis.

IMPACT THRESHOLDS

The Caltrans TIS Guide states that Caltrans' target LOS is "at the transition between LOS C and LOS D," which is generally interpreted to mean in the lower half of the range of LOS D (where the LOS is determined based on the freeway mainline density or the intersection delay). When that threshold has already been exceeded, the existing condition (or projected future condition) should be maintained with the addition of Modified Project traffic.

However, Caltrans does not identify specific incremental criteria by which to measure the significance of impacts to freeway mainline segments or intersections and, therefore, it is not possible to identify whether a specific facility would be significantly impacted under Caltrans criteria. In the absence of specific Caltrans criteria for evaluating impacts, the analysis results are presented for information purposes.

CALTRANS FACILITY TRAFFIC VOLUMES

For Caltrans intersection and ramp analysis, the existing traffic volumes were used from the peak hour intersection turning movement counts shown in Figure 4. Existing freeway mainline segment volumes were collected from Caltrans' Performance Measurement System (PeMS) based on the average volumes from May 2016 through July 2016 during the weekday evening and Saturday midday peak hours.

In order to estimate Long Range Year 2035 traffic volumes for Caltrans facilities, a process similar to that used in developing Future Year 2021 Conditions for the intersection analysis was used. It would be too conservative to assume 1% annual growth on Caltrans facilities over the 19-year period from 2016 to 2035. Therefore, CMP growth forecasts were used to estimate the ambient growth for the 14-year period between Future Year 2021 and Long Range Year 2035. The CMP estimates 3.6% total growth in the Study Area between years 2020 and 2035, and this rate was applied to the Future without Project (Year 2021) peak hour traffic volumes to represent Long Range without Project (Year 2035) conditions. This method therefore also includes the effects of Related Project traffic, which is included in the Future Year 2021 traffic forecasts.

FREEWAY MAINLINE SEGMENTS

Three freeway mainline segments and the I-110 express lanes were analyzed using the HCM methodology. Table 14 summarizes the LOS definitions for freeway mainline segments based on traffic density, measured in vehicles per mile per lane. Table 15 summarizes the peak hour traffic volumes used in each analysis scenario.

Existing Conditions (Year 2016)

Table 16 summarizes the results of the HCM analysis for Existing Conditions and Existing with Project Conditions. As shown, based on the analysis, all but one segment operates at LOS D or better under both Existing and Existing with Project Conditions. Segment FS-4, I-110 Express Lanes south of 39th Street, currently operates at LOS E during the weekday evening peak hour, and would continue to operate at LOS E with the Modified Project. The Modified Project would not cause the LOS to worsen at any segment and would have negligible effects on traffic density at each segment.

Future Conditions (Year 2021)

Table 17 summarizes the results of the HCM analysis for Future without Project Conditions and Future with Project Conditions. As shown, each of the analyzed segments is projected to operate at LOS E during one or both peak hours in one or both directions. The Modified Project would not cause the LOS to worsen at any segment and would have negligible effects on traffic density at each segment.

Long Range Conditions (Year 2035)

Table 18 summarizes the results of the HCM analysis for Long Range without Project Conditions and Long Range with Project Conditions. As shown, each of the analyzed segments is projected to operate at LOS E during one or both peak hours in one or both directions. The Modified Project would not cause the LOS to worsen at any segment and would have negligible effects on traffic density at each segment.

INTERSECTIONS

Six Caltrans ramp intersections were analyzed using HCM methodology. Table 19 summarizes the LOS definitions for signalized and unsignalized intersections using that methodology.

Existing Conditions (Year 2016)

Table 20 summarizes the results of the HCM analysis for Existing Conditions and Existing with Project Conditions. As shown, five of the six intersections currently operate at LOS D or better during both peak hours, without and with Modified Project traffic. Intersection #19, I-110 Southbound Ramps & Martin Luther King Jr. Boulevard, currently operates at LOS F during the weekday evening peak hour. The Modified Project would not cause the LOS to worsen beyond LOS C at any intersection and would have negligible effects on delay at each location.

Future Conditions (Year 2021)

Table 21 summarizes the results of the HCM analysis for Future without Project Conditions and Future with Project Conditions. As shown, four of the six intersections are projected to operate at LOS D or better during both peak hours, without and with Modified Project traffic. Intersection #19, I-110 Southbound Ramps & Martin Luther King Jr. Boulevard, would operate at LOS F during the weekday evening peak hour and Intersection #20, Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard, would operate at LOS E during the weekday evening peak hour. The Modified Project would not cause the LOS to worsen at any intersection and would have negligible effects on delay at each location.

Long Range Conditions (Year 2035)

Table 22 summarizes the results of the HCM analysis for Long Year 2035 without Project Conditions and Long Range with Project Conditions. As shown, four of the six intersections are projected to operate at LOS D or better during both peak hours, without and with Modified Project traffic. Intersection #19, I-110 Southbound Ramps & Martin Luther King Jr. Boulevard,

would operate at LOS F during the weekday evening peak hour and LOS E during the Saturday midday peak hour (under Long Range without Project Conditions), though it is forecast to improve to LOS D with the addition of Modified Project traffic due to increased efficiency. Intersection #20, Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard, would operate at LOS E during the weekday evening peak hour, without and with the Modified Project. The Modified Project would not cause the LOS to worsen at any intersection and would have negligible effects on delay at each location.

OFF-RAMP QUEUES

Five off-ramps from I-110 were analyzed to determine whether the length of the ramps were sufficient to accommodate vehicle queue lengths. PTV Vistro reports the 95th percentile queue length, in feet, for each approach lane on the off-ramp based on the HCM intersection analysis. Caltrans' primary concern at off-ramps is that queued vehicles may extend past the back of the ramp onto the mainline. To this end, the queuing analysis looks at two separate components of ramp capacity: the length of each approach lane to the intersection and the remaining length of the ramp to the point where it diverges from the freeway mainline (referred to as the spillover to ramp). The queue may exceed the striped length of a given approach lane, but as long as there is sufficient additional queuing capacity on the ramp, it will not spill over onto the mainline.

Existing Conditions (Year 2016)

Table 23 summarizes the results of the queuing analysis for Existing Conditions and Existing with Project Conditions. As shown, Q-5, I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard, has a queue exceeding the length of an approach lane, but there is ample queuing capacity on the ramp and therefore the queue would not affect the mainline freeway lanes. The Modified Project's effect on queue lengths at off-ramps under Existing with Project Conditions would be negligible.

Future Conditions (Year 2023)

Table 24 summarizes the results of the queuing analysis for Future without Project Conditions and Future with Project Conditions. As shown, Q-5, I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard, has a queue exceeding the length of an approach lane, but there is ample queuing capacity on the ramp and therefore the queue would not affect the mainline freeway lanes. The Modified Project's effect on queue lengths at off-ramps under Future with Project Conditions would be negligible.

Long Range Conditions (Year 2035)

Table 25 summarizes the results of the queuing analysis for Long Range without Project Conditions and Long Range with Project Conditions. As shown, Q-5, I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard, has a queue exceeding the length of an approach lane, but there is ample queuing capacity on the ramp and therefore the queue would not affect the mainline freeway lanes. The Modified Project's effect on queue lengths at off-ramps under Existing with Project Conditions would be negligible.

ON-RAMP CAPACITY

Five on-ramps were analyzed to determine whether the existing or projected volumes would exceed the maximum capacity of 900 vphpl established by Caltrans. Ramps exceeding this volume are considered over capacity by Caltrans, and measures to reduce on-ramp traffic should be considered.

Existing Conditions (Year 2016)

Table 26 summarizes the results of the on-ramp analysis for Existing Conditions and Existing with Project Conditions. As shown, each of the five on-ramps would have fewer than 900 vphpl during both the weekday evening and Saturday midday peak hours, with and without Modified

Project traffic. The Modified Project would not substantially increase the on-ramp volumes at any location.

Future Conditions (Year 2023)

Table 27 summarizes the results of the on-ramp analysis for Future without Project Conditions and Future with Project Conditions. As shown, each of the five on-ramps would have fewer than 900 vphpl during both the weekday evening and Saturday midday peak hours, with and without Modified Project traffic. The Modified Project would not substantially increase the on-ramp volumes at any location.

Long Range Conditions (Year 2035)

Table 28 summarizes the results of the on-ramp analysis for Long Range without Project Conditions and Long Range with Project Conditions. As shown, each of the five on-ramps would have fewer than 900 vphpl during both the weekday evening and Saturday midday peak hours, with and without Modified Project traffic. The Modified Project would not substantially increase the on-ramp volumes at any location.

TABLE 13
ANALYZED CALTRANS FACILITIES

ID	Location
Freeway Mainline Segments	
FS-1.	I-110 north of Exposition Boulevard
FS-2.	I-110 between Exposition Boulevard and Martin Luther King Jr. Boulevard
FS-3.	I-110 south of Martin Luther King Jr. Boulevard
Freeway HOV Segments	
FS-4.	I-110 Express Lanes south of 39th Street
Ramp Intersections	
15.	Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard
16.	Flower Street & 37th Street / I-110 Southbound On-ramp
17.	Hope Street / I-110 Northbound Off-ramp & 37th Street
18.	I-110 Express Lane Ramps & 39th Street
19.	I-110 Southbound Ramps & Martin Luther King Jr. Boulevard
20.	Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard
On-ramp Capacity	
R-1.	I-110 Southbound On-ramp from 37th Street / Exposition Boulevard (Intersection #16)
R-2.	I-110 Northbound On-ramp from Hope Street / Exposition Boulevard
R-3.	I-110 Express Lane Southbound On-ramp from 39th Street (Intersection #18)
R-4.	I-110 Southbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #19)
R-5.	I-110 Northbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #20)
Off-ramp Queues	
Q-1.	I-110 Southbound Off-ramp to Flower Street / Exposition Boulevard (Intersection #15)
Q-2.	I-110 Northbound Off-ramp to 37th Street / Hope Street / Exposition Boulevard (Intersection #17)
Q-3.	I-110 Express Lane Northbound Off-ramp to 39th Street (Intersection #18)
Q-4.	I-110 Southbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #19)
Q-5.	I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #20)

TABLE 14
FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Density [a]
A	Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	≤ 11
B	Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted.	> 11 and ≤ 18
C	Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.	> 18 and ≤ 26
D	Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.	> 26 and ≤ 35
E	Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.	> 35 and ≤ 45
F	Represents a breakdown in flow and oversaturated conditions.	> 45

Notes

Source: *2010 Highway Capacity Manual* (Transportation Research Board, 2010) and Caltrans.

[a] Density is defined in vehicles per mile per lane and describes the proximity to other vehicles and is related to the freedom to maneuver within the traffic stream (*2010 Highway Capacity Manual,* Transportation Research Board, 2010).

TABLE 15
FREEWAY MAINLINE SEGMENT TRAFFIC VOLUMES

ID	0	Peak Hour	Direction	Vehicles per Hour (vph)					
				Existing Conditions (Year 2016)	Existing with Project Conditions (Year 2016)	Future without Project Conditions (Year 2021)	Future with Project Conditions (Year 2021)	Long Range without Project Conditions (Year 2035)	Long Range with Project Conditions (Year 2035)
Freeway Mainline Segments									
FS-1.	I-110 north of Exposition Boulevard	Weekday Evening Peak Hour	NB	7,305	7,367	8,340	8,402	8,640	8,702
			SB	5,910	5,941	6,668	6,699	6,908	6,939
		Saturday Midday Peak Hour	NB	7,979	8,072	8,895	8,988	9,215	9,308
			SB	7,941	8,003	8,732	8,794	9,046	9,108
FS-2.	I-110 between Exposition Boulevard & Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	5,726	5,730	6,530	6,534	6,765	6,769
			SB	5,621	5,621	6,176	6,176	6,398	6,398
		Saturday Midday Peak Hour	NB	6,292	6,300	7,016	7,024	7,269	7,277
			SB	6,990	6,990	7,562	7,562	7,834	7,834
FS-3.	I-110 south of Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	6,441	6,453	7,292	7,304	7,555	7,567
			SB	6,738	6,762	7,487	7,511	7,757	7,781
		Saturday Midday Peak Hour	NB	6,490	6,514	7,247	7,271	7,508	7,532
			SB	8,758	8,795	9,521	9,558	9,864	9,901
Freeway HOV Segment									
FS-4.	I-110 Express Lanes south of 39th Street	Weekday Evening Peak Hour	NB	1,865	1,877	2,043	2,055	2,117	2,129
			SB	3,525	3,549	3,830	3,854	3,968	3,992
		Saturday Midday Peak Hour	NB	1,673	1,697	1,835	1,859	1,901	1,925
			SB	1,708	1,745	1,884	1,921	1,952	1,989

TABLE 16
FREEWAY SEGMENT LEVEL OF SERVICE EVALUATION
EXISTING OPERATING CONDITIONS (YEAR 2016)

ID	Freeway Segment	Peak Hour	Direction	Existing Conditions			Existing with Project Conditions		
				Speed [a]	Density [b]	LOS	Speed [a]	Density [b]	LOS
Freeway Mainline Segments									
FS-1.	I-110 north of Exposition Boulevard	Weekday Evening Peak Hour	NB	55.0	28.9	D	55.0	29.1	D
			SB	55.0	23.4	C	55.0	23.5	C
		Saturday Midday Peak Hour	NB	55.0	31.6	D	55.0	31.9	D
			SB	55.0	31.4	D	55.0	31.7	D
FS-2.	I-110 between Exposition Boulevard & Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	55.0	28.3	D	55.0	28.3	D
			SB	55.0	27.8	D	55.0	27.8	D
		Saturday Midday Peak Hour	NB	55.0	31.1	D	55.0	31.1	D
			SB	54.7	34.7	D	54.7	34.7	D
FS-3.	I-110 south of Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	55.0	31.9	D	55.0	31.9	D
			SB	55.0	26.7	D	55.0	26.7	D
		Saturday Midday Peak Hour	NB	55.0	32.1	D	55.0	32.2	D
			SB	54.7	34.8	D	54.7	35.0	D
Freeway Express Lane Segment									
FS-4.	I-110 Express Lanes south of 39th Street	Weekday Evening Peak Hour	NB	55.0	18.4	C	55.0	18.6	C
			SB	54.7	35.1	E	54.6	35.4	E
		Saturday Midday Peak Hour	NB	55.0	16.5	B	55.0	16.8	B
			SB	55.0	16.9	B	55.0	17.3	B

Notes
[a] Mean speed measured in miles per hour (mph).
[c] Measured in vehicles per mile per lane (v/m/l) for freeways with a free-flow speed of 55 mph.

TABLE 17
FREEWAY SEGMENT LEVEL OF SERVICE EVALUATION
FUTURE OPERATING CONDITIONS (YEAR 2021)

ID	Freeway Segment	Peak Hour	Direction	Future without Project Conditions			Future with Project Conditions		
				Speed [a]	Density [b]	LOS	Speed [a]	Density [b]	LOS
Freeway Mainline Segments									
FS-1.	I-110 north of Exposition Boulevard	Weekday Evening Peak Hour	NB	55.0	33.0	D	55.0	33.2	D
			SB	55.0	26.4	D	55.0	26.5	D
		Saturday Midday Peak Hour	NB	54.6	35.5	E	54.4	35.9	E
			SB	54.8	34.7	D	54.7	35.0	D
FS-2.	I-110 between Exposition Boulevard & Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	55.0	32.3	D	55.0	32.3	D
			SB	55.0	30.5	D	55.0	30.5	D
		Saturday Midday Peak Hour	NB	54.7	34.9	D	54.7	34.9	D
			SB	53.4	38.5	E	53.4	38.5	E
FS-3.	I-110 south of Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	54.2	36.6	E	54.1	36.7	E
			SB	55.0	29.6	D	55.0	29.7	D
		Saturday Midday Peak Hour	NB	54.3	36.3	E	54.2	36.5	E
			SB	53.2	38.9	E	53.1	39.2	E
Freeway Express Lane Segment									
FS-4.	I-110 Express Lanes south of 39th Street	Weekday Evening Peak Hour	NB	55.0	20.2	C	55.0	20.3	C
			SB	53.0	39.3	E	52.8	39.7	E
		Saturday Midday Peak Hour	NB	55.0	18.1	C	55.0	18.4	C
			SB	55.0	18.6	C	55.0	19.0	C

Notes
[a] Mean speed measured in miles per hour (mph).
[b] Measured in vehicles per mile per lane (v/m/l) for freeways with a free-flow speed of 55 mph.

TABLE 18
FREEWAY SEGMENT LEVEL OF SERVICE EVALUATION
LONG RANGE OPERATING CONDITIONS (YEAR 2035)

ID	Freeway Segment	Peak Hour	Direction	Long Range without Project Conditions			Long Range with Project Conditions		
				Speed [a]	Density [b]	LOS	Speed [a]	Density [b]	LOS
Freeway Mainline Segments									
FS-1.	I-110 north of Exposition Boulevard	Weekday Evening Peak Hour	NB	54.8	34.3	D	54.8	34.6	D
			SB	55.0	27.3	D	55.0	27.5	D
		Saturday Midday Peak Hour	NB	54.0	37.2	E	53.8	37.7	E
			SB	54.3	36.2	E	54.2	36.6	E
FS-2.	I-110 between Exposition Boulevard & Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	55.0	33.5	D	55.0	33.5	D
			SB	55.0	31.6	D	55.0	31.6	D
		Saturday Midday Peak Hour	NB	54.2	36.5	E	54.2	36.5	E
			SB	52.3	40.7	E	52.3	40.7	E
FS-3.	I-110 south of Martin Luther King Jr. Boulevard	Weekday Evening Peak Hour	NB	53.4	38.5	E	53.4	38.6	E
			SB	55.0	30.7	D	55.0	30.8	D
		Saturday Midday Peak Hour	NB	53.6	38.1	E	53.5	38.3	E
			SB	52.0	41.2	E	51.9	41.5	E
Freeway Express Lane Segment									
FS-4.	I-110 Express Lanes south of 39th Street	Weekday Evening Peak Hour	NB	55.0	20.9	C	55.0	21.1	C
			SB	51.8	41.6	E	51.6	42.1	E
		Saturday Midday Peak Hour	NB	55.0	18.8	C	55.0	19.0	C
			SB	55.0	19.3	C	55.0	19.7	C

Notes
[a] Mean speed measured in miles per hour (mph).
[b] Measured in vehicles per mile per lane (v/m/l) for freeways with a free-flow speed of 55 mph.

TABLE 19
INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Delay (s)
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	> 10 and ≤ 20
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	> 20 and ≤ 35
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	> 35 and ≤ 55
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	> 55 and ≤ 80
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80

Notes

Source: *2010 Highway Capacity Manual* (Transportation Research Board, 2010).

TABLE 20
INTERSECTION PEAK HOUR LEVELS OF SERVICE
EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

No.	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions	
			Delay	LOS	Delay	LOS
15.	Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	31.3 31.0	C C	31.2 30.4	C C
16.	Flower Street & 37th Street / I-110 Southbound On-ramp	Wkdy Eve Sat Mid	24.8 30.7	C C	25.1 30.9	C C
17.	Hope Street / I-110 Northbound Off-ramp & 37th Street	Wkdy Eve Sat Mid	19.0 19.4	B B	19.1 20.4	B C
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	14.8 11.9	B B	15.1 12.6	B B
19.	I-110 Southbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	139.1 54.6	F D	142.1 53.6	F D
20.	Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	47.6 22.0	D C	47.6 22.2	D C

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 8 (HCM 2010 methodology).

TABLE 21
INTERSECTION PEAK HOUR LEVELS OF SERVICE
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions	
			Delay	LOS	Delay	LOS
15.	Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	30.3 29.4	C C	30.2 29.0	C C
16.	Flower Street & 37th Street / I-110 Southbound On-ramp	Wkdy Eve Sat Mid	24.1 28.2	C C	24.1 28.5	C C
17.	Hope Street / I-110 Northbound Off-ramp & 37th Street	Wkdy Eve Sat Mid	19.2 20.2	B C	19.4 20.9	B C
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	17.0 14.2	B B	17.2 14.7	B B
19.	I-110 Southbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	170.9 54.3	F D	169.6 53.4	F D
20.	Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	58.4 27.2	E C	58.4 27.4	E C

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 8 (HCM 2010 methodology).

TABLE 22
INTERSECTION PEAK HOUR LEVELS OF SERVICE
LONG RANGE WITH PROJECT CONDITIONS (YEAR 2035)

No.	Intersection	Peak Hour	Long Range without Project Conditions		Long Range with Project Conditions	
			Delay	LOS	Delay	LOS
15.	Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard	Wkdy Eve Sat Mid	30.0 29.4	C C	30.0 29.0	C C
16.	Flower Street & 37th Street / I-110 Southbound On-ramp	Wkdy Eve Sat Mid	23.9 28.1	C C	24.2 28.4	C C
17.	Hope Street / I-110 Northbound Off-ramp & 37th Street	Wkdy Eve Sat Mid	19.2 20.1	B C	19.5 20.8	B C
18.	I-110 High-Occupancy Vehicle Ramps & 39th Street	Wkdy Eve Sat Mid	17.3 14.3	B B	17.6 14.8	B B
19.	I-110 Southbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	177.4 55.7	F E	176.0 54.8	F D
20.	Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard	Wkdy Eve Sat Mid	65.6 28.3	E C	65.6 28.6	E C

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 8 (HCM 2010 methodology).

TABLE 23
FREEWAY OFF-RAMP QUEUE EVALUATION
EXISTING OPERATING CONDITIONS (YEAR 2016)

Ramp and Lane Description	Vehicle Storage Capacity [a]	Existing Conditions				Existing with Project Conditions			
		Weekday Evening Peak Hour		Saturday Midday Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
		Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1. I-110 Southbound Off-ramp to Flower Street / Exposition Boulevard (Intersection #15)									
Left-turn Lane	680	47	NO	43	NO	51	NO	49	NO
Shared Left-turn / Through Lane	680	47	NO	43	NO	51	NO	49	NO
Through Lane	315	47	NO	43	NO	51	NO	49	NO
Spillover to Ramp	635	0	NO	0	NO	0	NO	0	NO
Q-2. I-110 Northbound Off-ramp to 37th Street / Hope Street / Exposition Boulevard (Intersection #17)									
Dual Through Lanes	275	63	NO	24	NO	74	NO	33	NO
Shared Through / Right-turn Lane	275	69	NO	26	NO	80	NO	34	NO
Spillover to Ramp	905	0	NO	0	NO	0	NO	0	NO
Q-3. I-110 Express Lane Northbound Off-ramp to 39th Street (Intersection #18)									
Shared Left-turn / Right-turn Lane	1,040	315	NO	138	NO	323	NO	162	NO
Q-4. I-110 Southbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #19)									
Left-turn Lane	235	122	NO	119	NO	122	NO	123	NO
Shared Left / Through / Right-turn Lane	235	142	NO	112	NO	145	NO	121	NO
Right-turn Lane	235	142	NO	110	NO	144	NO	119	NO
Spillover to Ramp	1,150	0	NO	0	NO	0	NO	0	NO
Q-5. I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #20)									
Left-turn Lane	475	232	NO	304	NO	237	NO	309	NO
Shared Left / Through / Right-turn Lane	475	569	**YES**	296	NO	589	**YES**	301	NO
Spillover to Ramp	575	94	NO	0	NO	114	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per Synchro 8 (Methodology from 2010 Highway Capacity Manual, Transportation Research Board, 2010).

TABLE 24
FREEWAY OFF-RAMP QUEUE EVALUATION
FUTURE OPERATING CONDITIONS (YEAR 2021)

Ramp and Lane Description	Vehicle Storage Capacity [a]	Future without Project Conditions				Future with Project Conditions			
		Weekday Evening Peak Hour		Saturday Midday Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
		Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1. I-110 Southbound Off-ramp to Flower Street / Exposition Boulevard (Intersection #15)									
Left-turn Lane	680	86	NO	68	NO	91	NO	75	NO
Shared Left-turn / Through Lane	680	86	NO	68	NO	91	NO	75	NO
Through Lane	315	86	NO	68	NO	91	NO	75	NO
Spillover to Ramp	635	0	NO	0	NO	0	NO	0	NO
Q-2. I-110 Northbound Off-ramp to 37th Street / Hope Street / Exposition Boulevard (Intersection #17)									
Dual Through Lanes	275	113	NO	43	NO	123	NO	53	NO
Shared Through / Right-turn Lane	275	122	NO	45	NO	132	NO	55	NO
Spillover to Ramp	905	0	NO	0	NO	0	NO	0	NO
Q-3. I-110 Express Lane Northbound Off-ramp to 39th Street (Intersection #18)									
Shared Left-turn / Right-turn Lane	1,040	381	NO	214	NO	389	NO	232	NO
Q-4. I-110 Southbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #19)									
Left-turn Lane	235	141	NO	148	NO	143	NO	153	NO
Shared Left / Through / Right-turn Lane	235	187	NO	151	NO	192	NO	163	NO
Right-turn Lane	235	166	NO	149	NO	171	NO	161	NO
Spillover to Ramp	1,150	0	NO	0	NO	0	NO	0	NO
Q-5. I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #20)									
Left-turn Lane	475	309	NO	334	NO	318	NO	338	NO
Shared Left / Through / Right-turn Lane	475	666	**YES**	330	NO	666	**YES**	336	NO
Spillover to Ramp	575	191	NO	0	NO	191	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per Synchro 8 (Methodology from 2010 Highway Capacity Manual, Transportation Research Board, 2010).

TABLE 25
FREEWAY OFF-RAMP QUEUE EVALUATION
LONG RANGE OPERATING CONDITIONS (YEAR 2035)

Ramp and Lane Description	Vehicle Storage Capacity [a]	Long Range without Project Conditions				Long Range with Project Conditions			
		Weekday Evening Peak Hour		Saturday Midday Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
		Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?	Vehicle Queue Length [b]	Exceeds Capacity?
Q-1. I-110 Southbound Off-ramp to Flower Street / Exposition Boulevard (Intersection #15)									
Left-turn Lane	680	92	NO	73	NO	98	NO	80	NO
Shared Left-turn / Through Lane	680	92	NO	73	NO	98	NO	80	NO
Through Lane	315	92	NO	73	NO	98	NO	80	NO
Spillover to Ramp	635	0	NO	0	NO	0	NO	0	NO
Q-2. I-110 Northbound Off-ramp to 37th Street / Hope Street / Exposition Boulevard (Intersection #17)									
Dual Through Lanes	275	122	NO	46	NO	133	NO	56	NO
Shared Through / Right-turn Lane	275	131	NO	48	NO	142	NO	59	NO
Spillover to Ramp	905	0	NO	0	NO	0	NO	0	NO
Q-3. I-110 Express Lane Northbound Off-ramp to 39th Street (Intersection #18)									
Shared Left-turn / Right-turn Lane	1,040	391	NO	220	NO	399	NO	238	NO
Q-4. I-110 Southbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #19)									
Left-turn Lane	235	153	NO	160	NO	155	NO	166	NO
Shared Left / Through / Right-turn Lane	235	200	NO	164	NO	205	NO	176	NO
Right-turn Lane	235	181	NO	162	NO	186	NO	174	NO
Spillover to Ramp	1,150	0	NO	0	NO	0	NO	0	NO
Q-5. I-110 Northbound Off-ramp to Martin Luther King Jr. Boulevard (Intersection #20)									
Left-turn Lane	475	324	NO	343	NO	334	NO	348	NO
Shared Left / Through / Right-turn Lane	475	740	**YES**	341	NO	740	**YES**	348	NO
Spillover to Ramp	575	265	NO	0	NO	265	NO	0	NO

[a] Expressed in feet.

[b] 95th Percentile queue results per Synchro 8 (Methodology from 2010 Highway Capacity Manual, Transportation Research Board, 2010).

TABLE 26
FREEWAY ON-RAMP CAPACITY EVALUATION
EXISTING OPERATING CONDITIONS (YEAR 2016)

ID	Freeway On-ramp	Number of Lanes	Capacity	Peak Hour	Existing Conditions		Existing with Project Conditions	
					Vehicles per Hour	Exceeds Capacity?	Vehicles per Hour	Exceeds Capacity?
R-1.	I-110 Southbound On-ramp from 37th Street / Exposition Boulevard (Intersection #16)	2	1,800	Wkdy Eve	1,018	NO	1,026	NO
				Sat Mid	717	NO	729	NO
R-2.	I-110 Northbound On-ramp from Hope Street / Exposition Boulevard	2	1,800	Wkdy Eve	259	NO	321	NO
				Sat Mid	303	NO	396	NO
R-3.	I-110 Express Lane Southbound On-ramp from 39th Street (Intersection #18)	1	900	Wkdy Eve	591	NO	615	NO
				Sat Mid	168	NO	205	NO
R-4.	I-110 Southbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #19)	2	1,800	Wkdy Eve	760	NO	776	NO
				Sat Mid	749	NO	774	NO
R-5.	I-110 Northbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #20)	2	1,800	Wkdy Eve	171	NO	171	NO
				Sat Mid	462	NO	462	NO

Notes:

On-ramp capacity is 900 vehicles per hour per lane.

TABLE 27
FREEWAY ON-RAMP CAPACITY EVALUATION
FUTURE OPERATING CONDITIONS (YEAR 2021)

ID	Freeway On-ramp	Number of Lanes	Capacity	Peak Hour	Future without Project Conditions		Future with Project Conditions	
					Vehicles per Hour	Exceeds Capacity?	Vehicles per Hour	Exceeds Capacity?
R-1.	I-110 Southbound On-ramp from 37th Street / Exposition Boulevard (Intersection #16)	2	1,800	Wkdy Eve	1,128	NO	1,136	NO
				Sat Mid	797	NO	809	NO
R-2.	I-110 Northbound On-ramp from Hope Street / Exposition Boulevard	2	1,800	Wkdy Eve	468	NO	530	NO
				Sat Mid	460	NO	553	NO
R-3.	I-110 Express Lane Southbound On-ramp from 39th Street (Intersection #18)	1	900	Wkdy Eve	746	NO	770	NO
				Sat Mid	266	NO	303	NO
R-4.	I-110 Southbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #19)	2	1,800	Wkdy Eve	877	NO	893	NO
				Sat Mid	844	NO	869	NO
R-5.	I-110 Northbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #20)	2	1,800	Wkdy Eve	242	NO	242	NO
				Sat Mid	530	NO	530	NO

Notes:

On-ramp capacity is 900 vehicles per hour per lane.

TABLE 28
FREEWAY ON-RAMP CAPACITY EVALUATION
LONG RANGE OPERATING CONDITIONS (YEAR 2035)

ID	Freeway On-ramp	Number of Lanes	Capacity	Peak Hour	Long Range without Project Conditions		Long Range with Project Conditions	
					Vehicles per Hour	Exceeds Capacity?	Vehicles per Hour	Exceeds Capacity?
R-1.	I-110 Southbound On-ramp from 37th Street / Exposition Boulevard (Intersection #16)	2	1,800	Wkdy Eve	1,169	NO	1,177	NO
				Sat Mid	826	NO	838	NO
R-2.	I-110 Northbound On-ramp from Hope Street / Exposition Boulevard	2	1,800	Wkdy Eve	485	NO	547	NO
				Sat Mid	477	NO	570	NO
R-3.	I-110 Express Lane Southbound On-ramp from 39th Street (Intersection #18)	1	900	Wkdy Eve	773	NO	797	NO
				Sat Mid	276	NO	313	NO
R-4.	I-110 Southbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #19)	2	1,800	Wkdy Eve	909	NO	925	NO
				Sat Mid	874	NO	899	NO
R-5.	I-110 Northbound On-ramp from Martin Luther King Jr. Boulevard (Intersection #20)	2	1,800	Wkdy Eve	251	NO	251	NO
				Sat Mid	549	NO	549	NO

Notes:

On-ramp capacity is 900 vehicles per hour per lane.

Chapter 10

Congestion Management Program Analysis

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Modified Project Site, in accordance with the procedures outlined in the CMP.

TRAFFIC IMPACT ANALYSIS GUIDELINES

The CMP requires that a traffic impact analysis (TIA) be performed on three types of facilities:

- Arterial intersections
- Mainline freeway segments
- The public transit system

The CMP identifies specific arterial and freeway mainline locations for analysis.

Arterial Intersections

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or evening peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. The CMP analysis uses the same CMA methodology as used in earlier chapters for City intersections to determine intersection V/C ratio and LOS. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F (V/C > 1.00) after the addition of project traffic.

Mainline Freeway Segments

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or evening peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday morning or afternoon peak hour. The CMP analysis uses a demand-to-capacity (D/C) ratio to determine facility LOS based on capacity identified in Appendix A of the CMP. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in freeway segment D/C ratio of 0.02 or greater to a facility projected to operate at LOS F (D/C > 1.00) after the addition of project traffic.

Public Transit System

The CMP requires that a transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system.

ARTERIAL INTERSECTION ANALYSIS

The CMP does not identify any arterial monitoring intersections within the Study Area. The nearest arterial monitoring intersection is at Alameda Street & Washington Boulevard, nearly three miles east of the Modified Project Site where Modified Project traffic would have a negligible effect. Therefore, because the Modified Project would not add 50 or more peak hour trips to any arterial monitoring intersection, no further analysis is required.

MAINLINE FREEWAY SEGMENT ANALYSIS

The CMP does not identify any mainline freeway monitoring locations within the Study Area. The nearest mainline freeway monitoring location is I-110 at Slauson Avenue (approximately 1.7 miles south of the Modified Project Site) and I-10 at Budlong Avenue (approximately 1.8 miles north of the Modified Project Site). Based on the trip generation estimates in Table 10, the

Modified Project generates a maximum of 221 trips in any one direction during a peak hour (inbound during the Saturday midday peak hour). In order to add 150 trips in a single direction on any freeway segment, approximately 68% of all outbound Modified Project traffic would have to travel on that segment. The Modified Project would add a maximum of 73 trips to I-110 in the northbound direction, including at the CMP freeway mainline monitoring location at Slauson Avenue. It would generate far fewer trips on I-10 at Budlong Avenue. Therefore, as the Modified Project would not add 150 trips to any segment in a single direction during a peak hour, no further analysis is required.

It should be noted that this analysis is different from the analysis of Caltrans facilities in Chapter 7. The analysis in Chapter 7 was based on Caltrans preferred traffic analysis methodologies and included all nearby Caltrans facilities, while the CMP freeway segment analysis is based on the guidelines and requirements of the CMP, which is administered by Los Angeles County.

PUBLIC TRANSIT SYSTEM ANALYSIS

Section D.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. However, the transit trip estimates in Table 8 result in a much higher estimate of transit person-trips, and therefore those estimates were used to assess the potential impact of the Modified Project on CMP transit facilities. As shown in Table 8, a total of 1,472 Modified Project visitors are expected to use public transit on a Design Day. Based on the arrival and departure patterns from Table 9, approximately 221 transit riders would be expected during the weekday evening peak hour and approximately 368 transit riders would be expected during the Saturday midday peak hour.

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. Based on Metro ridership data from March 2015 for the bus system and October 2016 for the rail system, there is capacity within the system to accommodate an additional 7,500 riders during the weekday evening peak hour and 3,363 riders during the Saturday midday peak hour. Even with potential growth in transit ridership by year 2021, the Modified Project's peak hour transit ridership would be easily accommodated within the available capacity of the system. Therefore, the Modified Project is not anticipated to result in regional transit impacts.

Chapter 11
Site Access and Circulation

This chapter presents a summary of how vehicles, pedestrians, and bicycles would access and circulate through the Modified Project Site.

MODIFIED PROJECT ACCESS AND CIRCULATION

Vehicular access to LMNA would be provided via two full-access driveways on Bill Robertson Lane, one north and one south of 39th Street. Each of these driveways would lead to the subterranean parking level. Service access would also be provided on Bill Robertson Lane. As with the existing surface parking lots on the LMNA Site, the Museum Parking Garage would provide pay parking for visitors. The parking ticket booths would be installed far enough into the parking structure to allow room for at least two vehicles to queue before reaching the street.

The Modified Project would include the vacation and regular closure of 39th Street between Vermont Avenue and Bill Robertson Lane, which is used today for access to Exposition Park. With the closure, traffic would instead use Exposition Boulevard or Martin Luther King Jr. Boulevard to reach Bill Robertson Lane. The redistribution of traffic currently using 39th Street is described in Chapter 4 and shown in Figure 9.

Pedestrian access to the Modified Project Site would be provided via existing sidewalks and proposed pedestrian plazas on the Modified Project Site. There is also a wide pedestrian parkway (approximately 60 feet in width) along the east edge of Vermont Avenue, between Vermont Avenue and the Modified Project Site. The Modified Project's open design on the ground level would offer direct pedestrian access to and from this pedestrian parkway as well as to and from the rest of Exposition Park to the east.

Bicycle access to the Modified Project Site would be provided by a network of existing and proposed bicycle facilities on many of the streets within the Study Area, including those directly adjacent to the Modified Project Site. Bill Robertson Lane is designated for bicycle friendly street treatments, and bicycle lanes are proposed on Vermont Avenue, Exposition Boulevard, and Martin Luther King Jr. Boulevard.

REPLACEMENT PARKING ACCESS

The secondary parking structure, which serves to replace the surface parking displaced by the Modified Project, would have three access points. It would have two full-access driveways to Bill Robertson Lane and one additional driveway to Vermont Avenue at Leighton Avenue, where a new traffic signal would be provided to safely permit left- and right-turns into and out of this driveway during events. A traffic signal warrant analysis based on peak event conditions is provided in Appendix E, concluding that the traffic signal is warranted.

Chapter 12
Parking

This chapter provides a review of the vehicular and bicycle parking requirements for the Modified Project set forth in the Los Angeles Municipal Code (City of Los Angeles, December 30, 2016) (LAMC).

PARKING SUPPLY

The Modified Project Site currently contains three surface parking lots providing a total of 1,691 spaces, all of which would be removed by the Modified Project. The Modified Project would also move the city-operated soccer field from its current location at the north end of the Replacement Parking Site to a new location at the south end of the Replacement Parking Site. The Modified Project would provide a total of up to 2,425 spaces in two subterranean structures, a net increase of 734 parking spaces within Exposition Park. Approximately 1,025 spaces would be provided in the two-level Museum Parking Garage on the LMNA Site serving the Modified Project and the adjacent Natural History Museum. The Replacement Parking Garage, located where the soccer field is presently located, would provide up to 1,400 spaces in three subterranean levels.

The Modified Project would also provide 30 short-term and 30 long-term bicycle parking spaces.

PARKING CODE REQUIREMENTS

The LAMC requires that a museum provide parking at a rate of one space per 500 sf of gross floor area. As the Modified Project would include up to 299,717 sf of floor area, it would require a total of up to 599 parking spaces. The LAMC also requires bicycle parking at a rate of one short-term and one long-term bicycle parking space for each 10,000 sf of gross floor area. Based on this

ratio, a total of up to 30 short-term and 30 long-term spaces are required. The Modified Project satisfies both the vehicular and bicycle parking requirement.

Chapter 13

Construction Impact Analysis

This chapter summarizes the construction schedule and construction impact analysis for the Modified Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities of the Modified Project, which may include safety, operational, or capacity impacts, and was performed in accordance with *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles* (City of Los Angeles, 2006).

TYPES OF CONSTRUCTION IMPACTS

L.A. CEQA Thresholds Guide identifies four types of in-street construction impacts. Each of the four types of impacts refers to a particular population that could be inconvenienced by construction activities. The four types of impacts and related populations are:

1. Temporary traffic impacts – potential impacts on vehicular travelers on roadways
2. Temporary loss of access – potential impacts on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential impacts on bus travelers
4. Temporary loss of on-street parking – potential impacts on parkers

The factors used to determine the significance of a project's impacts involve the likelihood and extent to which an impact might occur, the potential inconvenience caused to a population, and consideration for public safety. Traffic impacts from construction activities could occur as a result of the following types of activities:

- Increases in truck traffic associated with export or import of fill materials and delivery of construction materials
- Increases in automobile traffic associated with construction workers traveling to and from the Modified Project Site

- Reductions in existing street capacity or on-street parking from temporary lane closures necessary for the construction of roadway improvements, utility relocation, and drainage facilities
- Blocking existing vehicle or pedestrian access to other parcels fronting streets

The impact of construction traffic (including haul trucks) would be a lessening of the capacities of access streets and haul routes due to slower movements and larger turning radii of trucks.

PROPOSED CONSTRUCTION SCHEDULE

The Modified Project is anticipated to be constructed over an approximately four-year period between years 2017 and 2021. Typical construction activity would occur between 7:00 AM and 3:00 PM on weekdays and Saturdays. Peak haul truck activity occurs during excavation, which would last approximately six months. Peak worker activity occurs during building construction, which would last approximately 32 months, though most days there would be far fewer workers than on the peak day. These two phases of construction were studied in greater detail.

EXCAVATION PHASE

The peak period of truck activity during construction would occur during excavation of the Modified Project Site, which is anticipated to last approximately six months. Based on projections compiled for the Modified Project, a maximum of approximately 275 haul truck trips would leave the site each day. During this time, up to 40 workers would be on-site.

Excavation Phase Trip Generation

Haul activity would occur uniformly over an eight-hour haul day, resulting in approximately 34 hourly haul truck departures from the Modified Project Site. Similarly, there would be 34 hourly haul truck arrivals. Because construction trucks (such as earth-hauling trucks and cement trucks) are larger and slower than the passenger vehicles that make up the majority of the vehicles on the roads, they have an effect on traffic that is greater than a passenger vehicle's effect. *Transportation Research Circular No. 212* defines passenger car equivalency (PCE) for a vehicle

as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 16.7 of the HCM suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, there would be a total of approximately 68 hourly arriving and 68 hourly departing PCE trips attributable to haul trucks between the hours of 7:00 AM and 3:00 PM Monday through Saturday. This activity would not affect the evening commuter peak hour but would occur during the weekday morning commuter peak hour and the Saturday midday peak hour.

For workers, AVO of 1.135 persons per vehicle was applied to account for carpooling, as provided in *CEQA Air Quality Handbook* (South Coast Air Quality Management District, 1993). Therefore, 40 workers would result in a total of 35 vehicles that would arrive and depart from the Modified Project Site each day. As the hours of construction are expected to be from 7:00 AM to 3:00 PM, workers would typically arrive on-site prior to the weekday morning commuter peak period and leave prior to the evening commuter peak period. On Saturdays, they would leave following the Saturday midday peak period. Therefore, construction worker trips would not affect peak hour traffic conditions.

Travel Routes

It is anticipated that excavated materials will be taken to landfill sites to the north, and that staging of haul trucks and delivery vehicles at the Modified Project Site would occur on Bill Robertson Lane within Exposition Park. Haul trucks would travel from to and from I-110 via Bill Robertson Lane and Exposition Boulevard, which is the most direct route to the freeway.

Temporary Impact Analysis

As noted above, the haul truck trips would only affect the morning commuter peak hour (which was not analyzed for operational Modified Project impacts because the Modified Project would not be open until 10:00 AM) and the Saturday midday peak hour. In total, peak haul activity would result in 68 hourly arriving and departing PCE trips traveling along the haul route identified above and affecting only the streets along the haul route. This level of trip generation is substantially lower than the Modified Project trip generation for the Saturday midday peak hour identified in Table 10 (which includes 163 inbound trips and 245 outbound trips). Further, each of the study

intersections along the haul route identified above currently operate at LOS A during the Saturday midday peak hour. Based on a review of other recent traffic studies and available traffic data, each of those intersections operates at LOS C or better during the morning peak hour, and the addition of haul traffic would not trigger any of the City's significance thresholds for intersections. Therefore, no temporary significant traffic impact would occur as a result of construction haul traffic.

BUILDING CONSTRUCTION PHASE

According to construction projections prepared for the Modified Project, a maximum of approximately 400 workers could be on the construction site at one time during building construction. On most days over the 32-month building construction phase, far fewer workers would be on site. Due to the daily construction schedule beginning at 7:00 AM and ending at 3:00 PM, construction workers would typically arrive before the weekday morning peak period and depart before the weekday evening peak period, and therefore would not affect traffic conditions during the weekday commuter peaks. Similarly, they would not affect the Saturday midday peak hour, which ends prior to 3:00 PM. Therefore, construction worker traffic would not result in significant traffic impacts.

During building construction, there would be a maximum of approximately 170 delivery trucks (including concrete trucks) to and from the Modified Project Site per day. These trucks would typically arrive regularly throughout the day, resulting in approximately 21 trips in and out each hour of the eight-hour workday, or 42 PCE trips each direction based on a PCE of 2.0 for concrete or delivery trucks. This is fewer truck trips than estimated during the peak truck activity above, which was determined not to result in temporary significant impacts. Therefore, the period of peak worker activity would similarly not result in temporary significant impacts.

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Most construction activities will be primarily contained within the Modified Project Site boundaries. However, it is expected that construction fences will encroach into the public right-of-way (e.g., sidewalk and roadways) adjacent to the Modified Project Site on Bill Robertson Lane in order to accommodate deliveries, haul trucks, concrete trucks, and other equipment.

Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction Management Plan. Bill Robertson Lane does not allow on-street parking, and is wide enough to accommodate construction encroachment without restricting traffic in the travel lanes. Therefore, travel lanes would be maintained in each direction throughout the construction period, and emergency access would not be impeded. The use of the public right-of-way on Bill Robertson Lane would require temporary rerouting of pedestrian traffic to the east side of the street, as the sidewalks fronting the Modified Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian safety along the affected sidewalks and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering). There is no public transit on Bill Robertson Lane and, therefore, transit operations would not be affected by construction activities.

During construction, Exposition Park would provide adequate parking to accommodate construction workers (likely in Lots 4 and/or 5, which are located directly south of the Coliseum) in addition to regular daily parking demand for museums, athletic facilities, etc. Parking structure construction will be scheduled so as to make the new parking available for major events as quickly as possible, prior to completion of building construction. Nonetheless, to the extent that major events (e.g., football games at the Coliseum) occur prior to completion of replacement parking, the Parking Management Plan to be developed as a component of the Construction Management Plan will reduce the effects of the loss in parking.

Modified Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) have been incorporated into the Construction Management Plan. The construction-related impacts associated with access and transit are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan would be prepared and submitted to the City for review and

approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Modified Project Site, and shall include, but not be limited to, the following elements, as appropriate:

- Prohibition of construction worker parking on nearby residential streets.
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag men).
- Restriction of haul truck movements to the hours of 9:00 AM to 3:00 PM on weekdays.
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding arterial streets.
- Construction-related vehicles shall not park on surrounding public streets.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Development of a Parking Management Plan to manage traffic flow and parking demand during major events while Exposition Park's parking supply is reduced by construction.

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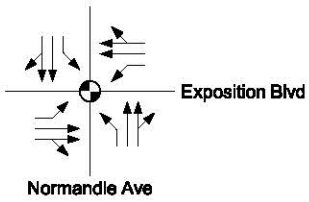
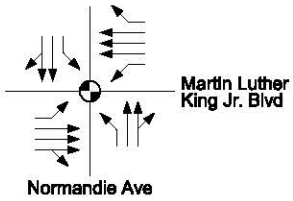
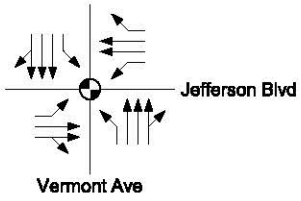
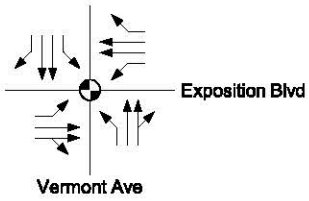
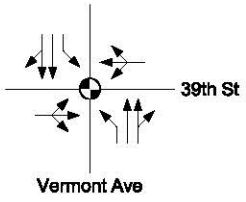
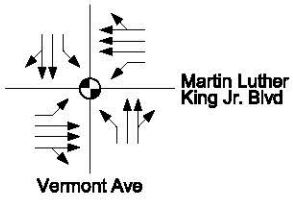
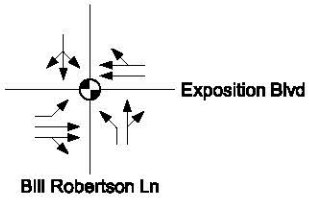
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Appendix A

Intersection Lane Configurations

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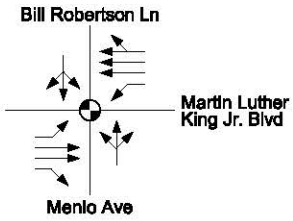
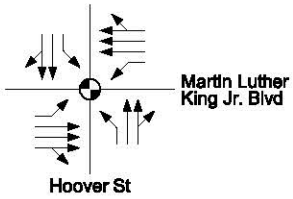
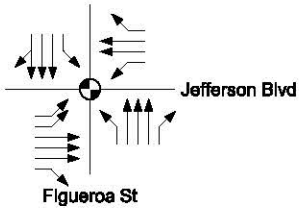
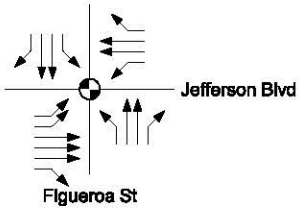
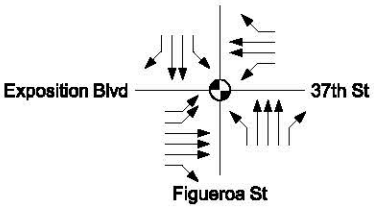
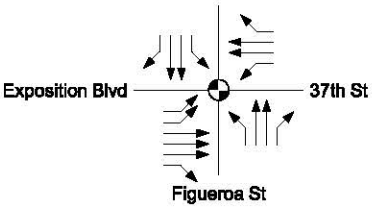
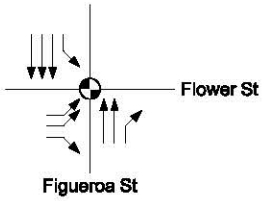
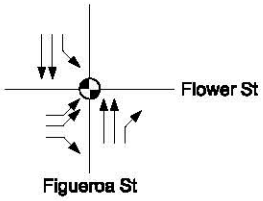
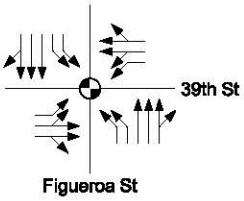
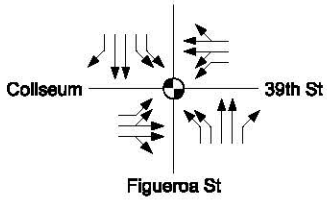
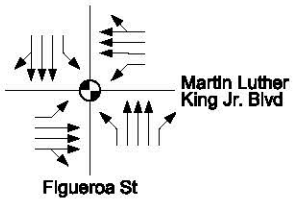
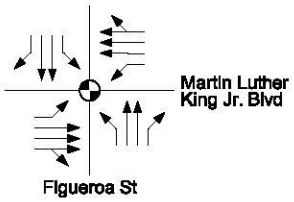
Traffic Signal

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2020)
1. Normandie Avenue & Exposition Boulevard		Same as Existing Conditions
2. Normandie Avenue & Martin Luther King Jr. Boulevard		Same as Existing Conditions
3. Vermont Avenue & Jefferson Boulevard		Same as Existing Conditions
4. Vermont Avenue & Exposition Boulevard		Same as Existing Conditions
5. Vermont Avenue & 39th Street		Same as Existing Conditions
6. Vermont Avenue & Martin Luther King Jr. Boulevard		Same as Existing Conditions
7. Bill Robertson Lane & Exposition Boulevard		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

LEGEND

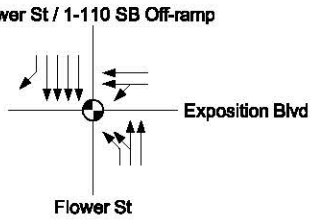
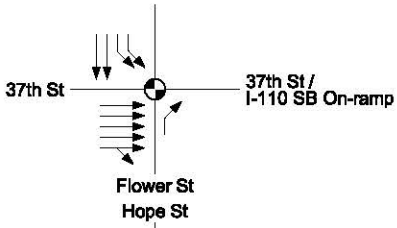
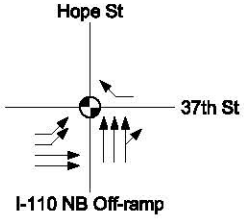
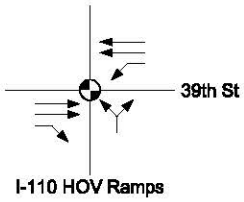
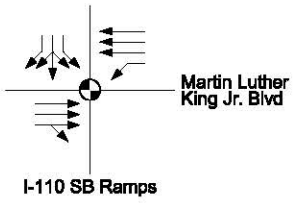
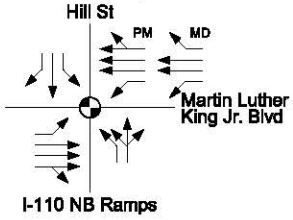
Traffic Signal

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2020)
8. Bill Robertson Lane / Menlo Avenue & Martin Luther King Jr. Boulevard		Same as Existing Conditions
9. Hoover Street & Martin Luther King Jr. Boulevard		Same as Existing Conditions
10. Figueroa Street & Jefferson Boulevard		
11. Figueroa Street & Exposition Boulevard / 37th Street		
12. Figueroa Street & Flower Street		
13. Figueroa Street & 39th Street		
14. Figueroa Street & Martin Luther King Jr. Boulevard		

INTERSECTION LANE CONFIGURATIONS

LEGEND

Traffic Signal

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2020)
15. Flower Street / I-110 Southbound Off-ramp & Exposition Boulevard		Same as Existing Conditions
16. Flower Street & 37th Street / I-110 Southbound On-ramp		Same as Existing Conditions
17. Hope Street / I-110 Northbound Off-ramp & 37th Street		Same as Existing Conditions
18. I-110 High Occupancy Vehicle Ramps & 39th Street		Same as Existing Conditions
19. I-110 Southbound Ramps & Martin Luther King Jr. Boulevard		Same as Existing Conditions
20. Hill Street / I-110 Northbound Ramps & Martin Luther King Jr. Boulevard		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

Appendix B

Traffic Counts

Turning Movement Count Report AM

Location ID: 1
North/South: Normandie Avenue
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	11	139	23	20	125	11	5	262	13	7	176	42	834
7:15	17	173	20	16	155	6	9	285	15	7	216	40	959
7:30	13	203	24	24	181	12	4	234	19	12	229	49	1004
7:45	24	205	17	20	175	15	6	270	33	8	187	53	1013
8:00	11	203	35	20	130	20	8	218	11	15	198	60	929
8:15	10	196	25	12	118	11	4	264	9	15	164	45	873
8:30	9	149	25	19	74	9	7	243	15	6	169	38	763
8:45	9	135	27	12	96	15	11	277	15	15	178	27	817
9:00	14	124	22	13	84	8	6	251	8	10	186	28	754
9:15	8	129	18	10	88	8	3	255	21	5	126	18	689
9:30	13	137	20	17	95	11	13	240	17	6	127	15	711
9:45	11	117	9	13	114	9	6	223	13	10	100	19	644

Total Volume:	150	1910	265	196	1435	135	82	3022	189	116	2056	434	9990
Approach %	6%	82%	11%	11%	81%	8%	2%	92%	6%	4%	79%	17%	

Peak Hr Begin:	7:15												
PHV	65	784	96	80	641	53	27	1007	78	42	830	202	3905
PHF	0.949			0.892			0.900			0.926			0.000

Turning Movement Count Report PM

Location ID: 1
North/South: Normandie Avenue
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	11	251	21	12	104	21	8	196	12	21	141	18	816
15:15	11	280	13	14	103	19	6	232	12	23	135	18	866
15:30	12	238	27	27	113	19	8	197	19	25	159	19	863
15:45	4	298	19	16	103	15	11	198	17	14	181	21	897
16:00	11	243	18	25	104	12	12	147	18	14	183	20	807
16:15	2	287	11	34	149	28	7	227	10	26	169	19	969
16:30	1	235	26	32	154	18	12	206	13	36	174	16	923
16:45	3	243	18	32	160	29	9	228	18	22	147	21	930
17:00	1	223	21	31	198	26	5	189	16	39	167	26	942
17:15	12	254	17	42	204	36	7	267	15	28	136	23	1041
17:30	3	241	27	38	210	32	6	201	14	42	161	19	994
17:45	4	252	10	37	189	25	12	223	16	34	158	23	983
18:00	4	231	21	25	204	33	7	181	21	31	164	21	943
18:15	3	241	8	31	174	25	4	228	18	23	138	24	917
18:30	5	247	21	35	193	30	2	165	14	34	129	19	894
18:45	8	279	16	34	164	21	3	168	20	26	112	10	861
Total Volume:	95	4043	294	465	2526	389	119	3253	253	438	2454	317	14646
Approach %	2%	91%	7%	14%	75%	12%	3%	90%	7%	14%	76%	10%	
Peak Hr Begin:	17:15												
PHV	23	978	75	142	807	126	32	872	66	135	619	86	3961
PHF	0.951			0.953			0.839			0.946			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	2	0	4	0	3	1	0	0
7:15	17	3	5	1	8	0	0	0
7:30	21	2	9	2	5	2	0	0
7:45	43	2	34	2	32	2	1	0
8:00	6	2	9	0	10	0	0	0
8:15	10	0	20	1	9	2	0	0
8:30	6	0	10	3	6	1	0	0
8:45	4	1	0	0	2	0	0	0
9:00	2	1	2	2	1	0	0	0
9:15	9	1	3	2	3	1	0	0
9:30	4	1	3	2	4	2	0	0
9:45	3	1	1	1	1	1	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	5	2	2	1	1	0	0	0
15:15	9	0	5	1	2	1	1	0
15:30	11	1	0	0	6	1	2	1
15:45	12	0	6	1	7	1	1	0
16:00	5	0	7	0	8	2	0	0
16:15	12	0	5	0	2	1	2	0
16:30	2	2	4	1	3	0	0	0
16:45	11	1	9	0	2	0	0	0
17:00	3	0	1	1	8	4	3	0
17:15	2	0	0	0	3	2	3	0
17:30	3	1	2	0	11	2	4	0
17:45	3	4	3	1	5	1	3	0
18:00	8	1	6	2	2	1	4	0
18:15	5	4	5	1	7	1	1	1
18:30	3	1	0	0	8	0	0	0
18:45	7	1	1	0	4	0	0	0

Turning Movement Count Report Saturday Midday

Location ID: 1
North/South: Normandie Avenue
East/West: Exposition Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	5	177	22	12	68	11	7	169	13	4	115	17	620
11:15	7	152	16	12	62	11	8	208	9	13	127	16	641
11:30	9	189	20	13	57	14	8	231	17	9	102	14	683
11:45	11	170	31	19	61	10	6	190	12	16	107	23	656
12:00	10	175	26	14	101	12	7	188	9	17	110	18	687
12:15	12	196	20	16	83	11	18	216	14	4	124	13	727
12:30	10	190	36	10	71	14	6	219	16	10	113	20	715
12:45	14	193	20	7	106	19	10	250	19	15	113	21	787
1:00	11	216	16	10	95	14	8	234	16	17	116	15	768
1:15	8	233	35	12	100	19	8	236	19	17	125	22	834
1:30	17	218	29	21	85	15	16	225	19	13	122	30	810
1:45	14	198	35	21	99	13	9	226	11	14	123	11	774
2:00	14	207	46	19	79	13	10	207	19	19	120	20	773
2:15	17	248	25	21	96	25	15	271	18	17	123	10	886
2:30	8	222	39	20	91	23	13	221	15	10	119	29	810
2:45	11	250	33	16	98	13	7	240	14	16	126	16	840

Total Volume:	178	3234	449	243	1352	237	156	3531	240	211	1885	295	12011
Approach %	5%	84%	12%	13%	74%	13%	4%	90%	6%	9%	79%	12%	

Peak Hr Begin:	2:00												
PHV	50	927	143	76	364	74	45	939	66	62	488	75	3309
PHF	0.952			0.905			0.863			0.983			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	4	0	0	1	2	1	0	0
11:15	11	1	0	0	5	0	0	1
11:30	8	0	0	0	4	0	5	1
11:45	5	0	0	0	5	1	1	0
12:00	2	0	1	0	2	0	1	0
12:15	5	0	0	0	6	0	1	0
12:30	4	1	0	0	3	0	1	0
12:45	13	6	0	0	2	0	4	0
1:00	1	1	1	0	1	0	2	2
1:15	1	2	0	1	9	0	0	0
1:30	2	1	0	1	6	0	0	0
1:45	4	1	0	0	5	1	1	1
2:00	0	2	1	0	11	1	5	1
2:15	4	0	0	0	3	0	2	1
2:30	4	1	1	0	4	0	1	1
2:45	8	0	0	0	2	1	6	0

Turning Movement Count Report AM

Location ID: 2
North/South: Normandie Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	10	118	18	22	330	23	30	270	41	14	326	20	1222
7:15	9	150	17	24	342	36	31	240	37	11	393	13	1303
7:30	13	190	23	21	306	29	23	191	38	15	372	12	1233
7:45	20	172	25	20	359	23	39	163	30	20	327	10	1208
8:00	19	197	18	27	295	34	42	200	33	15	304	24	1208
8:15	22	157	17	33	321	30	30	194	41	20	347	21	1233
8:30	14	135	20	42	283	18	37	185	44	16	305	25	1124
8:45	11	101	16	28	314	13	32	211	49	23	359	20	1177
9:00	13	100	18	32	302	16	37	190	38	13	240	26	1025
9:15	18	86	17	36	301	13	29	210	24	12	294	21	1061
9:30	21	105	15	18	315	8	23	213	30	16	231	30	1025
9:45	12	88	18	30	331	19	22	157	34	13	214	23	961
Total Volume:	182	1599	222	333	3799	262	375	2424	439	188	3712	245	13780
Approach %	9%	80%	11%	8%	86%	6%	12%	75%	14%	5%	90%	6%	
Peak Hr Begin:	7:00												
PHV	52	630	83	87	1337	111	123	864	146	60	1418	55	4966
PHF	0.846			0.955			0.831			0.919			0.000

Turning Movement Count Report PM

Location ID: 2
North/South: Normandie Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	21	183	29	29	229	28	25	150	19	22	303	27	1065
15:15	14	218	28	27	254	41	17	163	19	31	292	29	1133
15:30	13	222	24	29	275	32	17	173	21	24	273	20	1123
15:45	14	220	29	25	262	29	17	165	20	25	319	29	1154
16:00	19	219	22	44	309	34	27	139	18	24	292	26	1173
16:15	14	231	26	30	298	34	16	160	19	38	269	26	1161
16:30	13	231	19	25	282	30	25	190	17	34	295	32	1193
16:45	20	243	24	24	272	42	20	199	19	24	302	23	1212
17:00	16	214	22	36	320	27	19	184	24	30	303	31	1226
17:15	13	216	22	46	324	45	26	192	16	33	273	21	1227
17:30	10	240	26	24	299	32	17	179	21	25	295	22	1190
17:45	10	248	23	23	350	35	15	178	26	37	264	33	1242
18:00	10	228	15	35	313	42	12	160	17	22	308	25	1187
18:15	5	227	16	31	292	30	23	164	20	32	289	35	1164
18:30	16	238	22	28	309	46	17	138	21	27	281	23	1166
18:45	18	236	22	30	289	40	16	145	16	33	274	23	1142

Total Volume:	226	3614	369	486	4677	567	309	2679	313	461	4632	425	18758
Approach %	5%	86%	9%	8%	82%	10%	9%	81%	9%	8%	84%	8%	

Peak Hr Begin:	17:00												
PHV	49	918	93	129	1293	139	77	733	87	125	1135	107	4885
PHF		0.943			0.940			0.958			0.939		0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	6	0	2	0	16	1	7	0
7:15	20	1	2	0	19	1	11	0
7:30	17	0	4	0	20	1	16	2
7:45	11	4	4	0	11	0	11	1
8:00	19	0	4	0	8	0	8	0
8:15	8	1	3	1	12	1	5	2
8:30	5	0	3	0	8	0	5	0
8:45	7	0	1	2	5	0	4	1
9:00	10	0	1	0	0	3	6	0
9:15	9	0	2	0	10	1	6	0
9:30	6	2	4	0	11	2	5	0
9:45	0	1	3	0	11	1	4	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	15	1	5	2	6	4	7	2
15:15	4	3	2	2	9	2	12	3
15:30	9	0	1	0	13	1	6	0
15:45	12	2	2	0	10	2	12	2
16:00	7	1	2	0	6	2	10	0
16:15	6	2	1	0	8	3	5	0
16:30	8	5	2	0	11	2	30	0
16:45	7	0	1	0	6	0	12	0
17:00	12	2	1	1	11	0	10	2
17:15	11	4	0	0	8	2	12	5
17:30	13	1	2	0	9	0	12	0
17:45	7	1	1	1	5	1	9	2
18:00	11	2	1	0	14	0	13	1
18:15	5	2	1	0	15	2	10	0
18:30	12	1	2	0	14	0	7	2
18:45	14	0	2	1	10	2	9	1

Turning Movement Count Report Saturday Midday

Location ID: 2
North/South: Normandie Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	25	135	19	32	236	20	26	143	20	21	239	21	937
11:15	16	123	25	43	257	22	16	165	30	14	226	32	969
11:30	16	159	22	26	234	14	20	146	33	20	239	22	951
11:45	21	149	22	26	260	23	31	167	31	17	226	21	994
12:00	17	135	23	33	255	27	26	157	27	20	247	30	997
12:15	22	158	22	42	251	26	28	190	22	12	228	25	1026
12:30	31	151	22	46	285	25	23	214	25	23	265	32	1142
12:45	32	157	19	42	259	24	33	181	28	28	279	28	1110
1:00	22	183	21	43	276	27	35	205	26	33	273	31	1175
1:15	30	181	21	44	291	22	24	162	29	28	254	30	1116
1:30	28	175	24	37	279	17	24	185	33	13	261	29	1105
1:45	18	156	26	28	265	30	34	185	32	29	281	32	1116
2:00	27	177	24	39	264	27	32	189	26	25	264	23	1117
2:15	22	181	23	32	241	38	32	200	23	23	254	24	1093
2:30	22	169	25	37	239	36	28	191	30	26	258	23	1084
2:45	30	188	26	40	253	19	27	197	27	18	269	35	1129

Total Volume:	379	2577	364	590	4145	397	439	2877	442	350	4063	438	17061
Approach %	11%	78%	11%	11%	81%	8%	12%	77%	12%	7%	84%	9%	

Peak Hr Begin:	12:30												
PHV	115	672	83	175	1111	98	115	762	108	112	1071	121	4543
PHF	0.938			0.969			0.926			0.967			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	8	0	0	0	6	0	6	0
11:15	2	0	0	0	6	1	2	1
11:30	8	2	0	0	7	0	12	0
11:45	3	1	1	2	12	3	6	1
12:00	13	3	1	1	7	3	13	2
12:15	10	2	3	3	17	1	21	0
12:30	10	1	0	0	11	0	11	2
12:45	6	0	0	0	2	2	6	0
1:00	8	0	0	0	7	0	6	1
1:15	8	0	2	0	10	0	9	1
1:30	3	1	0	0	7	0	1	1
1:45	12	2	1	0	8	3	8	1
2:00	7	1	0	1	14	1	6	0
2:15	7	2	4	1	5	1	12	0
2:30	5	1	1	0	13	0	14	1
2:45	12	1	2	0	8	1	9	4

Turning Movement Count Report AM

Location ID: 3
North/South: Vermont Ave
East/West: Jefferson Blvd

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	26	135	52	9	140	19	49	281	20	15	119	34	899
7:15	31	148	80	5	143	39	63	227	11	19	201	38	1005
7:30	33	167	97	11	162	44	71	206	6	10	242	53	1102
7:45	21	207	108	12	159	58	46	199	11	23	231	32	1107
8:00	20	157	64	15	149	47	60	231	22	24	216	44	1049
8:15	26	164	65	21	128	41	61	214	18	20	200	35	993
8:30	24	169	63	17	117	46	52	230	15	24	174	36	967
8:45	17	157	65	13	92	42	43	243	13	25	167	23	900
9:00	16	137	53	17	121	39	32	212	21	19	159	30	856
9:15	24	163	31	17	94	40	38	175	10	22	108	26	748
9:30	18	154	52	17	74	44	51	174	16	27	116	33	776
9:45	23	173	49	28	84	57	37	190	14	28	120	29	832

Total Volume:	279	1931	779	182	1463	516	603	2582	177	256	2053	413	11234
Approach %	9%	65%	26%	8%	68%	24%	18%	77%	5%	9%	75%	15%	

Peak Hr Begin:	7:15												
PHV	105	679	349	43	613	188	240	863	50	76	890	167	4263
PHF	0.843			0.921			0.921			0.929			0.000

Turning Movement Count Report PM

Location ID: 3
North/South: Vermont Ave
East/West: Jefferson Blvd

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	27	199	35	22	106	48	45	184	21	23	124	25	859
15:15	25	205	45	27	143	61	54	185	23	31	129	31	959
15:30	26	224	37	28	108	57	53	179	25	35	164	27	963
15:45	24	268	36	32	151	58	57	202	25	31	186	27	1097
16:00	27	254	35	26	110	59	44	230	27	28	177	37	1054
16:15	26	239	34	32	150	52	42	227	24	22	160	31	1039
16:30	26	243	46	28	143	62	57	192	21	21	159	33	1031
16:45	27	226	39	32	174	49	53	231	28	20	183	23	1085
17:00	34	238	30	38	170	59	54	257	26	25	163	35	1129
17:15	31	238	39	36	214	75	72	243	37	22	169	35	1211
17:30	27	236	39	23	214	55	49	259	25	24	176	18	1145
17:45	36	237	49	38	225	61	74	228	32	19	193	27	1219
Total Volume:	336	2807	464	362	1908	696	654	2617	314	301	1983	349	12791
Approach %	9%	78%	13%	12%	64%	23%	18%	73%	9%	11%	75%	13%	
Peak Hr Begin:	17:00												
PHV	128	949	157	135	823	250	249	987	120	90	701	115	4704
PHF	0.958			0.929			0.963			0.948			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	1	2	9	3	13	2	6	1
7:15	0	3	19	3	26	4	12	2
7:30	8	3	24	5	45	3	18	3
7:45	7	3	17	15	27	9	13	6
8:00	4	4	20	8	28	6	26	4
8:15	3	2	15	7	31	4	18	5
8:30	4	6	27	3	31	8	15	2
8:45	10	10	28	11	44	11	13	11
9:00	2	7	18	4	24	5	10	4
9:15	6	5	16	6	19	5	14	4
9:30	3	6	18	3	18	5	13	3
9:45	10	9	26	16	35	11	16	7

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	13	3	28	6	13	7	17	4
15:15	14	9	21	7	18	8	5	7
15:30	10	6	32	3	19	11	13	8
15:45	9	11	18	16	21	7	31	8
16:00	16	5	32	8	35	8	31	9
16:15	6	4	13	12	16	10	15	7
16:30	7	9	19	9	30	12	17	13
16:45	6	5	20	9	23	10	22	7
17:00	3	8	23	16	30	11	25	7
17:15	15	4	30	7	20	9	30	4
17:30	17	3	27	10	19	6	25	5
17:45	6	10	23	13	21	8	22	4

Turning Movement Count Report Saturday Midday

Location ID: 3
North/South: Vermont Avenue
East/West: Jefferson Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	28	196	26	20	60	45	34	205	20	24	80	29	767
11:15	38	191	20	9	62	29	33	173	22	24	77	35	713
11:30	31	192	25	22	53	46	36	154	17	27	72	37	712
11:45	29	194	12	14	64	26	29	196	18	23	83	44	732
12:00	29	223	24	18	63	42	34	189	31	23	83	40	799
12:15	21	204	33	21	69	48	46	163	23	22	88	39	777
12:30	32	204	20	24	85	35	28	195	26	24	86	32	791
12:45	35	189	26	18	91	57	29	187	26	32	96	37	823
1:00	30	209	21	22	106	46	41	196	18	27	102	37	855
1:15	28	229	28	20	78	48	30	158	18	35	100	43	815
1:30	31	206	16	20	98	46	33	184	14	24	119	37	828
1:45	26	219	22	19	68	41	33	169	16	22	101	45	781
2:00	29	208	22	21	95	54	46	182	18	30	97	31	833
2:15	34	231	14	10	87	46	45	179	15	21	95	48	825
2:30	40	216	30	32	106	54	30	175	17	18	100	34	852
2:45	24	215	23	20	78	58	38	144	11	34	104	35	784
Total Volume:	485	3326	362	310	1263	721	565	2849	310	410	1483	603	12687
Approach %	12%	80%	9%	14%	55%	31%	15%	77%	8%	16%	59%	24%	

Peak Hr Begin:	12:45												
PHV	124	833	91	80	373	197	133	725	76	118	417	154	3321
PHF	0.919			0.934			0.916			0.957			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	8	2	12	0	7	0	1	0
11:15	9	2	7	4	8	1	4	1
11:30	7	2	14	5	10	2	7	1
11:45	8	1	12	5	21	3	9	2
12:00	9	1	20	2	17	4	4	1
12:15	4	1	8	2	7	1	7	1
12:30	12	2	19	9	23	6	3	0
12:45	9	0	20	4	27	4	4	0
1:00	21	2	22	5	10	2	11	1
1:15	13	3	13	5	11	1	4	1
1:30	8	0	14	1	15	3	9	3
1:45	4	0	14	5	13	6	6	2
2:00	22	2	12	2	19	4	6	1
2:15	10	0	23	5	10	2	5	1
2:30	11	5	13	3	13	4	9	1
2:45	3	1	7	3	2	3	9	1

Turning Movement Count Report AM

Location ID: 4
North/South: Vermont Avenue
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	11	152	27	63	118	35	21	258	14	11	210	44	964
7:15	12	151	46	67	155	33	20	188	11	7	314	49	1053
7:30	12	192	47	79	205	37	33	190	1	6	280	53	1135
7:45	16	193	51	85	152	41	48	140	7	9	283	50	1075
8:00	15	188	58	76	143	41	51	149	13	5	266	51	1056
8:15	8	160	38	70	110	39	23	155	7	9	297	61	977
8:30	9	171	36	62	104	30	30	194	8	5	251	69	969
8:45	8	137	34	68	99	22	19	186	6	9	246	56	890
9:00	8	133	36	57	91	24	23	230	5	4	233	31	875
9:15	7	122	39	58	85	15	14	165	11	6	165	24	711
9:30	6	125	37	57	84	19	25	211	21	9	146	21	761
9:45	12	128	30	65	98	29	14	169	23	13	125	22	728
Total Volume:	124	1852	479	807	1444	365	321	2235	127	93	2816	531	11194
Approach %	5%	75%	20%	31%	55%	14%	12%	83%	5%	3%	82%	15%	

Peak Hr Begin:	7:15												
PHV	55	724	202	307	655	152	152	667	32	27	1143	203	4319
PHF	0.940			0.868			0.950			0.928			0.000

Turning Movement Count Report PM

Location ID: 4
North/South: Vermont Avenue
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	12	277	45	50	97	20	21	166	10	17	145	19	879
15:15	14	235	35	44	105	26	15	142	11	23	159	21	830
15:30	10	246	50	55	137	21	15	165	14	17	185	15	930
15:45	17	242	31	51	114	22	13	147	10	11	219	24	901
16:00	5	288	42	54	129	30	15	164	11	16	175	23	952
16:15	15	238	36	60	162	37	15	160	14	9	177	32	955
16:30	11	278	39	38	153	18	14	168	19	20	158	28	944
16:45	10	253	34	57	186	38	13	145	20	17	185	29	987
17:00	11	279	44	40	211	22	13	172	22	14	160	38	1026
17:15	16	259	42	44	229	23	21	154	21	17	196	35	1057
17:30	10	286	36	50	209	23	18	184	22	12	179	31	1060
17:45	11	236	30	58	198	23	15	135	14	18	189	16	943
18:00	12	300	41	57	204	24	21	172	14	12	148	32	1037
18:15	8	228	34	53	205	32	10	157	22	21	174	28	972
18:30	16	286	49	43	213	23	9	155	13	17	146	22	992
18:45	15	251	28	53	161	21	14	128	14	15	158	20	878

Total Volume:	193	4182	616	807	2713	403	242	2514	251	256	2753	413	15343
Approach %	4%	84%	12%	21%	69%	10%	8%	84%	8%	7%	80%	12%	

Peak Hr Begin:	16:45												
PHV	47	1077	156	191	835	106	65	655	85	60	720	133	4130
PHF		0.958			0.956			0.898			0.920		0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	24	0	2	3	35	4	71	1
7:15	63	1	7	1	42	3	63	1
7:30	40	1	8	1	53	2	95	4
7:45	86	2	12	3	30	4	55	3
8:00	52	2	11	4	31	3	58	1
8:15	43	4	6	9	48	4	69	1
8:30	39	2	7	2	30	6	42	2
8:45	46	4	10	2	40	2	41	2
9:00	30	3	11	3	19	1	35	3
9:15	36	6	15	6	30	3	29	3
9:30	49	2	4	2	14	0	26	4
9:45	35	4	1	1	15	2	27	5

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	60	4	16	2	34	2	78	3
15:15	43	1	12	2	28	3	36	6
15:30	69	1	20	1	59	2	55	4
15:45	65	1	11	2	58	3	65	2
16:00	50	1	13	4	48	4	45	1
16:15	47	2	9	3	41	2	49	4
16:30	75	2	23	1	56	4	41	5
16:45	89	3	15	1	39	2	47	3
17:00	80	2	19	1	38	6	46	4
17:15	67	4	11	2	40	7	34	3
17:30	69	2	20	4	43	6	48	2
17:45	66	2	17	3	37	3	25	2
18:00	38	1	13	3	39	8	43	1
18:15	48	4	19	5	28	7	33	5
18:30	32	4	10	2	15	3	24	2
18:45	55	4	20	1	51	5	37	3

Turning Movement Count Report Saturday Midday

Location ID: 4
North/South: Vermont Avenue
East/West: Exposition Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	9	232	44	27	53	27	17	157	8	11	121	20	726
11:15	12	259	38	49	61	28	8	170	8	14	122	29	798
11:30	10	216	53	36	73	30	17	185	9	13	105	18	765
11:45	11	170	46	25	64	39	15	163	10	18	126	23	710
12:00	19	206	41	32	88	26	11	173	15	15	110	22	758
12:15	6	177	42	42	84	26	14	167	9	13	130	26	736
12:30	16	199	44	28	79	33	17	190	13	12	128	18	777
12:45	17	220	37	37	115	30	16	189	14	15	128	23	841
1:00	11	267	45	42	94	32	19	189	16	7	121	19	862
1:15	8	203	28	33	98	31	12	185	19	18	133	28	796
1:30	13	241	37	36	86	31	18	176	17	18	132	22	827
1:45	17	246	45	38	117	34	17	174	9	17	157	23	894
2:00	18	261	40	31	107	24	17	191	8	13	132	26	868
2:15	15	214	36	33	101	36	22	160	14	13	124	26	794
2:30	9	249	60	23	98	35	13	158	16	23	125	17	826
2:45	21	212	37	25	97	25	9	162	11	17	124	28	768

Total Volume:	212	3572	673	537	1415	487	242	2789	196	237	2018	368	12746
Approach %	5%	80%	15%	22%	58%	20%	7%	86%	6%	9%	77%	14%	

Peak Hr Begin:	1:15												
PHV	56	951	150	138	408	120	64	726	53	66	554	99	3385
PHF	0.907			0.881			0.976			0.912			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	15	1	11	4	17	2	28	4
11:15	25	1	5	0	33	3	17	0
11:30	19	0	8	2	32	1	28	0
11:45	31	0	17	0	43	4	40	4
12:00	13	0	17	4	46	0	26	0
12:15	17	0	5	2	37	6	24	1
12:30	16	0	9	4	28	4	17	4
12:45	23	1	8	1	31	0	31	1
1:00	19	2	15	4	27	2	37	1
1:15	26	3	10	1	24	2	18	3
1:30	25	4	28	6	27	2	29	2
1:45	49	2	15	6	39	1	21	3
2:00	21	2	12	4	47	4	43	4
2:15	16	1	19	6	42	3	33	1
2:30	18	2	11	3	38	2	24	0
2:45	33	0	18	0	38	4	20	0

Turning Movement Count Report AM

Location ID: 5
North/South: Vermont Avenue
East/West: 39th Street

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	7	145	0	0	0	0	0	244	6	7	0	27	436
7:15	11	172	0	0	0	0	0	189	3	13	0	44	432
7:30	11	175	1	0	0	0	0	125	7	18	0	64	401
7:45	16	172	1	0	0	0	0	139	4	8	0	59	399
8:00	18	163	1	0	0	0	0	157	5	13	0	37	394
8:15	12	165	0	0	0	0	0	163	6	13	0	36	395
8:30	14	168	0	0	0	0	0	192	5	15	0	22	416
8:45	5	142	0	0	0	0	0	207	21	20	0	14	409
9:00	12	146	0	0	0	0	0	211	12	12	0	14	407
9:15	10	124	0	0	0	0	0	190	10	4	0	7	345
9:30	9	135	1	0	0	0	0	241	6	11	0	11	414
9:45	10	139	2	0	0	0	0	209	12	8	0	13	393
Total Volume:	135	1846	6	0	0	0	0	2267	97	142	0	348	4841
Approach %	7%	93%	0%	0%	0%	0%	0%	96%	4%	29%	0%	71%	
Peak Hr Begin:	7:00												
PHV	45	664	2	0	0	0	0	697	20	46	0	194	1668
PHF	0.940			0.000			0.717			0.732			0.000

Turning Movement Count Report PM

Location ID: 5
North/South: Vermont Avenue
East/West: 39th Street

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	16	261	3	3	0	0	0	173	5	6	0	14	481
15:15	21	286	1	2	1	0	0	167	8	9	1	18	514
15:30	19	250	2	0	4	1	0	168	4	11	0	11	470
15:45	24	268	1	1	0	1	1	170	9	9	0	13	497
16:00	17	309	2	2	1	0	0	169	9	8	0	10	527
16:15	17	267	1	6	1	0	0	174	13	4	0	15	498
16:30	14	302	1	5	3	0	0	168	5	17	0	14	529
16:45	20	283	2	7	6	0	0	164	5	17	0	11	515
17:00	13	290	2	8	4	2	1	175	6	15	2	8	526
17:15	16	296	5	12	18	1	0	170	2	13	2	17	552
17:30	23	293	0	5	5	3	0	190	8	14	0	13	554
17:45	20	256	3	5	10	5	1	161	8	13	2	8	492
18:00	15	319	2	10	10	3	0	185	14	10	0	7	575
18:15	17	257	14	13	11	3	2	166	10	16	2	8	519
18:30	23	284	10	6	6	1	2	140	2	7	3	7	491
18:45	16	238	2	7	4	0	1	145	6	11	1	8	439

Total Volume:	291	4459	51	92	84	20	8	2685	114	180	13	182	8179
Approach %	6%	93%	1%	47%	43%	10%	0%	96%	4%	48%	3%	49%	

Peak Hr Begin:	17:15												
PHV	74	1164	10	32	43	12	1	706	32	50	4	45	2173
PHF													0.000

Turning Movement Count Report Saturday Midday

Location ID: 5
North/South: Vermont Avenue
East/West: 39th Street

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	8	205	11	7	3	2	6	166	7	6	3	10	434
11:15	11	185	16	11	1	3	5	176	7	8	4	6	433
11:30	17	184	24	7	1	1	1	188	4	11	3	10	451
11:45	14	213	11	10	7	3	5	174	9	6	7	11	470
12:00	12	191	10	27	5	4	5	173	6	9	1	2	445
12:15	14	202	15	14	5	3	4	191	7	6	5	11	477
12:30	20	173	8	13	3	2	3	182	7	11	6	6	434
12:45	13	246	19	16	3	1	3	198	14	12	4	16	545
1:00	21	232	11	20	9	3	6	186	4	11	1	8	512
1:15	20	223	14	27	4	2	9	199	8	15	6	11	538
1:30	18	216	17	19	4	5	3	187	7	13	6	13	508
1:45	19	274	18	11	4	3	3	169	8	12	4	16	541
2:00	19	223	9	15	5	6	6	202	10	9	3	8	515
2:15	20	240	14	19	9	1	6	177	6	6	3	4	505
2:30	15	252	10	5	5	3	1	175	7	9	5	9	496
2:45	16	255	20	8	10	3	2	171	9	7	8	11	520
Total Volume:	257	3514	227	229	78	45	68	2914	120	151	69	152	7824
Approach %	6%	88%	6%	65%	22%	13%	2%	94%	4%	41%	19%	41%	
Peak Hr Begin:	12:45												
PHV	72	917	61	82	20	11	21	770	33	51	17	48	2103
PHF		0.944			0.856			0.954			0.906		0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	8	1	3	2	2	0	8	2
11:15	7	1	1	2	0	1	10	1
11:30	4	0	1	2	1	1	8	2
11:45	2	0	5	1	19	2	25	4
12:00	7	0	5	2	8	1	15	0
12:15	12	0	6	2	9	2	20	3
12:30	11	0	3	1	9	0	7	5
12:45	6	0	7	1	8	0	15	3
1:00	9	1	3	2	21	0	13	1
1:15	16	1	2	0	16	0	12	0
1:30	9	0	0	2	3	1	12	1
1:45	22	2	2	2	4	1	18	4
2:00	20	1	1	1	12	0	27	6
2:15	7	1	12	5	14	1	17	3
2:30	7	0	7	3	6	1	12	2
2:45	10	1	2	0	8	0	6	2

Turning Movement Count Report AM

Location ID: 6
North/South: Vermont Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	13	110	31	48	332	18	41	234	31	12	402	18	1290
7:15	23	143	47	43	300	19	38	172	44	16	432	25	1302
7:30	11	151	61	23	282	23	34	140	58	18	375	31	1207
7:45	15	143	41	29	286	28	38	133	59	24	333	24	1153
8:00	18	121	41	37	326	21	40	144	45	22	371	27	1213
8:15	11	117	50	41	333	19	29	149	55	14	352	23	1193
8:30	26	115	45	50	266	11	40	166	38	18	356	15	1146
8:45	15	114	49	48	310	12	38	170	40	16	344	19	1175
9:00	14	99	32	51	306	9	32	142	33	13	288	21	1040
9:15	17	98	32	34	304	17	21	150	27	15	308	22	1045
9:30	20	99	29	47	342	14	19	188	23	19	264	24	1088
9:45	21	110	42	50	292	10	19	145	28	21	272	26	1036

Total Volume:	204	1420	500	501	3679	201	389	1933	481	208	4097	275	13888
Approach %	10%	67%	24%	11%	84%	5%	14%	69%	17%	5%	89%	6%	

Peak Hr Begin:	7:00												
PHV	62	547	180	143	1200	88	151	679	192	70	1542	98	4952
PHF	0.885			0.899			0.835			0.904			0.000

Turning Movement Count Report PM

Location ID: 6
North/South: Vermont Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	22	179	58	29	279	17	25	112	38	29	287	24	1099
15:15	18	201	68	40	281	24	22	132	33	31	302	15	1167
15:30	24	175	61	35	289	23	22	115	36	30	270	14	1094
15:45	22	203	58	45	290	16	23	112	29	33	315	26	1172
16:00	23	197	67	36	355	29	17	124	37	33	292	21	1231
16:15	22	221	55	49	322	30	13	117	28	28	288	30	1203
16:30	23	215	73	36	288	20	19	127	31	34	300	17	1183
16:45	14	198	67	27	309	27	15	128	34	31	314	18	1182
17:00	20	217	67	41	356	27	20	130	31	28	302	22	1261
17:15	23	229	73	32	332	22	15	118	34	17	314	18	1227
17:30	19	209	59	42	345	24	20	127	25	22	302	18	1212
17:45	14	227	57	37	381	28	15	126	27	30	288	21	1251
18:00	23	227	55	54	367	23	11	140	19	27	316	18	1280
18:15	20	205	60	41	332	19	24	126	27	30	272	24	1180
18:30	21	217	56	35	379	28	10	110	20	25	311	14	1226
18:45	19	204	55	30	354	23	12	112	22	30	278	28	1167

Total Volume:	327	3324	989	609	5259	380	283	1956	471	458	4751	328	19135
Approach %	7%	72%	21%	10%	84%	6%	10%	72%	17%	8%	86%	6%	

Peak Hr Begin:	17:15												
PHV	79	892	244	165	1425	97	61	511	105	96	1220	75	4970
PHF	0.935			0.946			0.984			0.963			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	16	2	8	2	27	4	22	0
7:15	26	2	16	1	25	2	38	1
7:30	22	1	13	1	24	4	65	4
7:45	31	1	10	3	45	3	90	1
8:00	21	3	11	5	18	5	51	2
8:15	20	3	9	5	29	3	36	3
8:30	13	1	6	2	23	2	24	1
8:45	26	1	7	1	11	2	21	2
9:00	9	2	9	6	19	4	27	2
9:15	29	0	8	4	20	1	27	1
9:30	15	1	15	0	17	3	26	1
9:45	20	1	10	0	17	1	24	2

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	26	4	18	6	22	2	57	6
15:15	45	3	10	3	14	5	51	5
15:30	25	0	6	2	11	2	46	4
15:45	32	1	18	0	33	2	55	5
16:00	29	2	5	2	10	9	34	2
16:15	25	4	10	5	32	0	64	6
16:30	30	3	9	3	49	1	44	3
16:45	46	2	15	3	18	2	51	3
17:00	58	4	10	0	26	2	56	5
17:15	24	2	6	0	34	0	44	2
17:30	48	5	14	2	32	7	51	2
17:45	25	0	12	3	33	2	42	6
18:00	37	3	6	6	38	7	58	11
18:15	30	3	6	3	20	0	39	9
18:30	34	4	6	4	29	6	43	6
18:45	41	3	10	1	15	5	31	5

Turning Movement Count Report Saturday Midday

Location ID: 6
North/South: Vermont Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	28	140	48	83	196	22	18	78	37	20	231	25	926
11:15	34	132	50	61	228	20	17	102	41	28	227	17	957
11:30	23	131	40	58	225	27	13	110	28	21	247	26	949
11:45	15	140	42	59	244	26	22	103	40	30	257	21	999
12:00	26	133	44	71	246	26	11	86	30	18	245	28	964
12:15	28	146	44	62	290	22	14	115	22	25	237	18	1023
12:30	23	129	58	63	286	31	20	105	40	24	219	29	1027
12:45	23	155	59	87	282	21	16	98	22	30	235	24	1052
1:00	29	159	58	77	284	19	18	88	33	30	215	30	1040
1:15	29	146	63	78	295	31	16	109	37	31	234	23	1092
1:30	24	153	50	77	269	30	15	99	34	21	274	23	1069
1:45	26	189	63	60	315	20	18	97	23	28	234	34	1107
2:00	14	168	59	62	314	19	27	105	28	26	221	28	1071
2:15	20	176	51	88	261	29	19	78	26	25	278	22	1073
2:30	30	175	61	76	251	25	22	86	26	28	276	23	1079
2:45	28	174	79	70	265	30	22	85	25	22	223	28	1051

Total Volume:	400	2446	869	1132	4251	398	288	1544	492	407	3853	399	16479
Approach %	11%	66%	23%	20%	74%	7%	12%	66%	21%	9%	83%	9%	

Peak Hr Begin:	1:15												
PHV	93	656	235	277	1193	100	76	410	122	106	963	108	4339
PHF	0.885			0.972			0.938			0.925			0.000

Pedestrian/Bicycle Count Report

	North		*East*		*South*		*West*	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	13	1	15	1	17	1	16	2
11:15	31	2	19	2	19	1	39	2
11:30	38	5	16	1	18	3	41	3
11:45	29	1	11	2	25	5	35	2
12:00	19	4	11	2	20	0	39	4
12:15	31	5	15	3	13	2	25	1
12:30	45	2	12	1	19	4	33	7
12:45	29	2	12	8	30	4	41	2
1:00	16	2	11	3	22	0	23	1
1:15	29	2	23	8	29	2	45	4
1:30	24	3	24	0	30	1	32	7
1:45	22	0	12	1	25	1	25	4
2:00	30	2	13	4	35	3	45	5
2:15	24	3	13	3	20	2	35	4
2:30	37	3	16	1	26	3	28	8
2:45	34	3	13	1	38	4	33	2

Turning Movement Count Report AM

Location ID: 7
North/South: Bill Robertson Lane
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	0	139	4	38	0	70	6	256	0	513
7:15	0	0	0	0	164	6	43	0	100	5	357	0	675
7:30	0	0	0	0	208	6	77	0	118	6	355	0	770
7:45	0	0	0	0	194	10	81	0	85	9	366	0	745
8:00	0	0	0	0	192	12	88	0	66	9	363	0	730
8:15	0	0	0	0	156	8	72	0	64	14	335	0	649
8:30	0	0	0	0	124	15	54	0	66	14	288	0	561
8:45	0	0	0	0	150	8	33	0	47	14	273	0	525
9:00	0	0	0	0	143	22	19	0	27	11	286	0	508
9:15	0	0	0	0	140	5	14	0	14	9	199	0	381
9:30	0	0	0	0	147	14	13	0	16	12	198	0	400
9:45	0	0	0	0	177	12	9	0	13	14	162	0	387
Total Volume:	0	0	0	0	1934	122	541	0	686	123	3438	0	6844
Approach %	0%	0%	0%	0%	94%	6%	44%	0%	56%	3%	97%	0%	

Peak Hr Begin:	7:15												
PHV	0	0	0	0	758	34	289	0	369	29	1441	0	2920
PHF	0.000			0.925			0.844			0.980			0.000

Turning Movement Count Report PM

Location ID: 7
North/South: Bill Robertson Lane
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	0	138	4	27	0	27	16	198	0	410
15:15	0	0	0	0	154	4	13	0	6	12	194	0	383
15:30	0	0	0	0	196	5	14	0	16	10	244	0	485
15:45	0	0	0	0	165	8	24	0	18	17	243	0	475
16:00	0	0	0	0	187	6	24	0	23	27	206	0	473
16:15	0	0	0	0	229	5	25	0	26	22	204	0	511
16:30	0	0	0	0	190	7	30	0	22	15	207	0	471
16:45	0	0	0	0	273	10	22	0	16	21	214	0	556
17:00	0	0	0	0	250	11	35	0	20	16	203	0	535
17:15	0	0	0	0	268	7	32	0	29	24	235	0	595
17:30	0	0	0	0	255	12	14	0	31	32	202	0	546
17:45	0	0	0	0	257	6	30	0	24	27	216	0	560
18:00	0	0	0	0	275	9	13	0	14	21	188	0	520
18:15	0	0	0	0	276	9	12	0	16	15	200	0	528
18:30	0	0	0	0	269	7	2	0	13	25	184	0	500
18:45	0	0	0	0	229	1	5	0	5	9	181	0	430
Total Volume:	0	0	0	0	3611	111	322	0	306	309	3319	0	7978
Approach %	0%	0%	0%	0%	97%	3%	51%	0%	49%	9%	91%	0%	
Peak Hr Begin:	17:00												
PHV	0	0	0	0	1030	36	111	0	104	99	856	0	2236
PHF	0.000			0.969			0.881			0.922			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	2	4	0	0
7:15	0	0	0	0	0	3	3	0
7:30	0	0	0	0	3	1	2	1
7:45	0	0	0	0	17	2	3	0
8:00	0	0	0	0	3	1	0	0
8:15	0	0	0	0	8	5	6	0
8:30	0	0	0	0	7	0	8	1
8:45	0	0	0	0	5	4	4	0
9:00	0	0	0	0	5	5	0	0
9:15	0	0	0	0	15	1	3	2
9:30	0	0	0	0	10	0	5	0
9:45	0	0	0	0	3	0	3	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	0	0	8	4	4	0
15:15	0	0	0	0	10	1	4	1
15:30	0	0	0	0	17	2	8	0
15:45	0	0	0	0	27	3	14	1
16:00	0	0	0	0	14	3	4	0
16:15	0	0	0	0	25	4	6	1
16:30	0	0	0	0	11	3	12	1
16:45	0	0	0	0	12	4	8	2
17:00	0	0	0	0	22	3	19	0
17:15	0	0	0	0	6	2	5	0
17:30	0	0	0	0	17	5	6	0
17:45	0	0	0	0	8	3	11	0
18:00	0	0	0	0	9	4	7	0
18:15	0	0	0	0	6	6	6	0
18:30	0	0	0	0	13	2	4	0
18:45	0	0	0	0	7	1	1	0

Turning Movement Count Report Saturday Midday

Location ID: 7
North/South: Bill Robertson Lane
East/West: Exposition Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	0	0	0	0	98	29	21	0	15	36	149	0	348
11:15	0	0	0	0	112	41	28	0	17	29	133	0	360
11:30	0	0	0	0	131	17	30	0	16	36	140	1	371
11:45	0	0	0	0	122	20	30	0	10	36	153	0	371
12:00	0	0	0	0	129	30	39	0	16	35	133	0	382
12:15	0	0	0	0	136	25	41	0	13	31	151	0	397
12:30	0	0	0	0	117	20	34	0	17	35	156	0	379
12:45	0	0	0	0	161	33	37	0	27	35	145	0	438
1:00	0	0	0	0	140	22	35	0	32	34	151	0	414
1:15	0	0	0	0	134	32	35	0	24	27	144	0	396
1:30	0	0	0	0	141	43	44	0	20	43	148	0	439
1:45	0	0	0	0	162	33	42	0	21	39	182	0	479
2:00	0	0	0	0	140	25	38	0	20	31	155	0	409
2:15	0	0	0	0	146	19	45	0	21	43	148	0	422
2:30	0	0	0	0	134	19	47	0	20	38	162	0	420
2:45	0	0	0	0	139	30	40	0	20	22	149	0	400

Total Volume:	0	0	0	0	2142	438	586	0	309	550	2399	1	6425
Approach %	0%	0%	0%	0%	83%	17%	65%	0%	35%	19%	81%	0%	

Peak Hr Begin:	1:30												
PHV	0	0	0	0	589	120	169	0	82	156	633	0	1749
PHF	0.000			0.909			0.951			0.893			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	0	0	0	0	20	1	12	0
11:15	0	0	0	0	12	2	15	1
11:30	0	0	0	0	34	3	8	0
11:45	0	0	0	0	18	1	17	0
12:00	0	0	0	0	23	1	12	0
12:15	0	0	0	0	14	2	7	1
12:30	0	0	0	0	16	3	11	0
12:45	0	0	0	0	24	0	2	0
1:00	0	0	0	0	25	0	11	0
1:15	0	0	0	0	14	0	8	0
1:30	0	0	0	1	22	2	8	0
1:45	0	0	0	0	36	4	3	0
2:00	0	0	0	0	25	5	5	0
2:15	0	0	0	0	20	2	8	0
2:30	0	0	0	0	18	0	4	0
2:45	0	0	0	0	14	1	13	0

Turning Movement Count Report AM

Location ID: 8
North/South: Bill Robertson Lane / Menlo Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	3	3	2	53	373	0	17	44	11	4	450	22	982
7:15	4	2	4	68	333	10	21	95	17	5	460	29	1048
7:30	4	3	3	70	331	8	24	82	21	11	397	35	989
7:45	7	5	10	49	329	7	20	64	16	12	368	38	925
8:00	9	9	4	44	364	9	19	49	13	7	397	52	976
8:15	15	5	5	62	353	6	22	37	14	5	381	42	947
8:30	10	2	7	67	296	4	10	22	7	3	397	31	856
8:45	6	4	5	51	389	2	8	10	8	2	425	24	934
9:00	4	0	5	36	357	3	6	4	7	2	336	17	777
9:15	3	2	4	21	363	2	8	3	8	1	345	14	774
9:30	3	3	5	22	395	3	3	4	7	7	296	17	765
9:45	8	0	7	19	369	3	4	1	3	2	283	8	707
Total Volume:	76	38	61	562	4252	57	162	415	132	61	4535	329	10680
Approach %	43%	22%	35%	12%	87%	1%	23%	59%	19%	1%	92%	7%	

Peak Hr Begin:	7:00												
PHV	18	13	19	240	1366	25	82	285	65	32	1675	124	3944
PHF	0.568			0.957			0.812			0.927			0.000

Turning Movement Count Report PM

Location ID: 8
North/South: Bill Robertson Lane / Menlo Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	9	3	10	11	315	10	9	1	2	5	365	6	746
15:15	7	2	8	9	361	7	11	1	7	9	377	6	805
15:30	2	3	3	11	327	8	12	1	3	4	352	5	731
15:45	6	5	7	17	364	9	15	4	6	10	380	10	833
16:00	6	10	13	19	413	13	5	2	4	7	354	10	856
16:15	13	7	24	26	390	14	7	6	3	11	346	8	855
16:30	12	5	19	17	338	16	13	3	3	6	373	5	810
16:45	10	10	16	23	375	11	3	5	3	6	381	13	856
17:00	12	15	21	24	411	16	6	3	5	5	358	12	888
17:15	15	8	23	31	384	16	5	3	6	11	381	16	899
17:30	16	9	26	24	416	25	2	4	2	20	356	18	918
17:45	21	11	18	25	410	21	4	2	4	15	359	11	901
18:00	19	8	24	22	413	15	5	1	2	11	346	16	882
18:15	15	9	19	23	379	15	6	2	5	12	337	9	831
18:30	16	5	16	25	421	10	6	3	1	6	348	10	867
18:45	13	7	21	19	401	9	4	3	2	4	339	11	833

Total Volume:	192	117	268	326	6118	215	113	44	58	142	5752	166	13511
Approach %	33%	20%	46%	5%	92%	3%	53%	20%	27%	2%	95%	3%	

Peak Hr Begin:	17:00												
PHV	64	43	88	104	1621	78	17	12	17	51	1454	57	3606
PHF	0.956			0.969			0.821			0.957			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	4	2	2	0	9	2	2	1
7:15	7	1	7	0	7	1	1	0
7:30	3	1	1	1	8	0	1	1
7:45	14	1	12	0	13	1	0	0
8:00	4	2	5	0	9	1	4	1
8:15	8	0	3	0	9	0	2	0
8:30	4	1	1	0	4	0	1	1
8:45	3	0	1	0	4	1	1	1
9:00	4	0	2	0	6	2	1	0
9:15	7	0	2	0	9	1	1	0
9:30	8	1	3	0	9	0	3	0
9:45	4	0	2	0	4	0	2	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	5	1	5	0	3	1	7	1
15:15	5	1	1	0	4	1	4	0
15:30	8	0	3	0	4	1	1	1
15:45	8	0	6	0	6	0	3	1
16:00	5	0	1	0	5	0	1	0
16:15	9	4	7	0	10	0	2	1
16:30	14	0	1	1	8	1	3	2
16:45	10	0	5	0	6	1	0	0
17:00	9	5	6	0	4	0	1	0
17:15	12	1	3	0	5	0	1	0
17:30	13	2	6	0	5	0	0	0
17:45	9	0	2	0	5	0	2	0
18:00	8	1	4	1	6	0	2	0
18:15	11	1	1	0	8	0	1	0
18:30	8	0	2	0	2	0	5	0
18:45	3	0	1	0	1	0	1	0

Turning Movement Count Report Saturday Midday

Location ID: 8
North/South: Bill Robertson Lane / Menlo Avenue
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	19	2	25	34	274	10	2	2	2	4	291	11	676
11:15	12	1	22	44	293	4	4	2	3	2	262	8	657
11:30	9	2	14	42	298	6	10	5	5	4	292	11	698
11:45	15	2	18	45	313	5	10	4	2	3	301	32	750
12:00	24	3	42	52	313	6	7	4	4	5	267	23	750
12:15	34	6	46	44	332	15	13	2	4	4	281	10	791
12:30	17	1	51	41	352	8	8	5	6	9	268	6	772
12:45	28	5	42	54	362	8	5	2	1	10	292	12	821
1:00	26	2	44	40	363	12	10	6	4	5	272	7	791
1:15	27	3	25	42	366	3	13	5	2	4	311	11	812
1:30	23	7	38	40	346	5	4	3	3	7	319	18	813
1:45	25	6	26	37	400	10	12	3	3	9	287	8	826
2:00	26	1	46	33	338	8	6	3	3	5	292	12	773
2:15	16	5	46	42	351	11	10	2	3	6	328	12	832
2:30	16	2	32	40	314	12	6	2	1	5	336	18	784
2:45	14	1	29	41	376	11	7	3	4	3	296	21	806

Total Volume:	331	49	546	671	5391	134	127	53	50	85	4695	220	12352
Approach %	36%	5%	59%	11%	87%	2%	55%	23%	22%	2%	94%	4%	

Peak Hr Begin:	1:30												
PHV	90	19	156	152	1435	34	32	11	12	27	1226	50	3244
PHF	0.908			0.907			0.764			0.941			0.000

Pedestrian/Bicycle Count Report

	North		*East*		*South*		*West*	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	6	0	9	0	6	2	2	0
11:15	8	0	15	0	8	0	0	0
11:30	12	1	1	0	8	0	0	0
11:45	9	0	11	0	9	0	0	0
12:00	19	1	1	0	4	0	0	0
12:15	3	3	2	0	8	0	0	0
12:30	19	0	3	0	7	0	0	0
12:45	4	0	6	0	3	0	0	0
1:00	8	1	13	12	14	1	0	0
1:15	15	5	7	3	12	7	3	1
1:30	19	2	16	0	3	1	0	0
1:45	12	0	11	1	8	0	0	0
2:00	17	1	11	0	6	0	1	0
2:15	2	1	7	0	11	2	0	0
2:30	20	2	9	1	2	1	1	0
2:45	10	0	2	0	3	1	0	0

Turning Movement Count Report AM

Location ID: 9
North/South: Hoover Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	1	2	1	3	281	22	142	4	152	30	410	3	1051
7:15	7	2	2	8	276	22	113	5	148	33	455	2	1073
7:30	2	5	2	11	244	30	120	3	150	39	369	2	977
7:45	3	2	2	8	282	25	116	4	147	40	352	9	990
8:00	3	7	2	14	284	22	66	2	139	34	378	4	955
8:15	7	5	6	11	273	20	75	2	127	39	381	2	948
8:30	3	0	8	4	219	17	81	2	143	30	384	4	895
8:45	6	1	0	6	268	7	71	1	139	34	393	3	929
9:00	2	0	6	6	296	16	71	1	102	25	336	2	863
9:15	1	1	2	11	307	15	48	0	65	21	340	2	813
9:30	2	1	1	5	336	14	35	0	76	19	270	2	761
9:45	2	1	1	1	322	17	25	0	69	21	285	3	747
Total Volume:	39	27	33	88	3388	227	963	24	1457	365	4353	38	11002
Approach %	39%	27%	33%	2%	91%	6%	39%	1%	60%	8%	92%	1%	

Peak Hr Begin:	7:00												
PHV	13	11	7	30	1083	99	491	16	597	142	1586	16	4091
PHF	0.705			0.962			0.926			0.890			0.000

Turning Movement Count Report PM

Location ID: 9
North/South: Hoover Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	4	4	12	6	306	28	30	1	36	53	310	3	793
15:15	5	5	5	8	287	29	33	0	48	61	334	5	820
15:30	6	2	10	4	317	34	24	1	41	70	290	0	799
15:45	4	3	9	6	328	31	27	0	49	66	301	2	826
16:00	1	3	6	7	414	50	33	2	60	98	282	11	967
16:15	8	8	8	4	331	47	29	1	64	86	280	0	866
16:30	5	8	5	10	321	40	40	0	63	98	289	0	879
16:45	4	7	4	11	329	42	37	0	61	96	285	0	876
17:00	7	7	5	5	377	47	22	3	60	91	275	1	900
17:15	5	6	3	10	383	36	22	1	54	101	317	0	938
17:30	12	12	7	14	393	35	20	1	62	112	280	3	951
17:45	7	10	6	12	388	36	23	1	53	106	291	4	937
18:00	3	10	1	8	383	37	14	2	60	87	272	1	878
18:15	5	5	3	4	335	50	19	0	60	87	265	1	834
18:30	3	6	1	6	414	50	24	0	50	100	275	2	931
18:45	1	7	1	9	399	52	22	0	45	102	281	3	922
Total Volume:	80	103	86	124	5705	644	419	13	866	1414	4627	36	14117
Approach %	30%	38%	32%	2%	88%	10%	32%	1%	67%	23%	76%	1%	
Peak Hr Begin:	17:00												
PHV	31	35	21	41	1541	154	87	6	229	410	1163	8	3726
PHF	0.702			0.982			0.947			0.946			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	9	3	4	0	7	3	0	0
7:15	2	2	0	0	7	0	4	0
7:30	3	1	4	0	6	0	6	0
7:45	4	1	9	0	5	1	14	0
8:00	1	1	1	0	7	0	0	0
8:15	6	0	3	0	8	1	3	0
8:30	1	1	1	0	10	0	1	0
8:45	0	0	1	0	4	0	2	0
9:00	3	0	0	0	5	2	2	0
9:15	1	0	1	0	5	0	2	0
9:30	1	0	1	0	6	0	3	2
9:45	2	0	1	0	6	0	4	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	1	0	4	0	12	0	11	1
15:15	2	0	4	0	10	0	4	0
15:30	2	0	2	0	4	0	10	0
15:45	1	0	3	0	3	0	4	0
16:00	1	0	3	0	2	0	1	0
16:15	1	0	6	0	2	0	5	0
16:30	2	0	5	0	5	0	4	0
16:45	2	0	7	0	4	0	5	0
17:00	2	0	8	0	9	0	9	0
17:15	1	1	4	0	9	0	1	0
17:30	1	0	4	0	10	0	10	0
17:45	1	0	3	0	7	0	4	0
18:00	0	0	10	0	9	0	4	0
18:15	0	0	2	0	4	0	7	0
18:30	1	0	11	0	9	0	10	0
18:45	1	0	9	0	3	2	4	0

Turning Movement Count Report Saturday Midday

Location ID: 9
North/South: Hoover Street
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	7	1	14	10	254	18	34	1	37	40	267	3	686
11:15	5	0	10	11	279	24	28	0	38	22	268	6	691
11:30	6	2	9	17	282	27	28	5	60	26	279	4	745
11:45	4	4	18	1	290	26	35	2	65	40	281	5	771
12:00	7	3	20	8	327	21	33	4	60	28	285	4	800
12:15	9	3	19	12	316	22	37	1	58	45	311	6	839
12:30	6	2	21	12	334	39	41	1	57	45	316	3	877
12:45	11	3	30	14	329	35	32	1	62	31	286	3	837
1:00	12	8	16	12	350	39	37	3	53	35	296	4	865
1:15	2	4	9	11	342	33	39	3	61	44	300	3	851
1:30	8	2	15	11	325	37	37	1	56	44	314	0	850
1:45	6	0	15	7	374	31	34	1	61	31	287	2	849
2:00	11	3	20	14	314	43	51	0	62	48	290	1	857
2:15	10	5	10	16	324	39	38	0	51	45	331	4	873
2:30	7	4	9	18	317	42	25	1	43	33	322	3	824
2:45	11	1	7	14	358	44	30	2	64	44	278	6	859

Total Volume:	122	45	242	188	5115	520	559	26	888	601	4711	57	13074
Approach %	30%	11%	59%	3%	88%	9%	38%	2%	60%	11%	88%	1%	

Peak Hr Begin:	12:30												
PHV	31	17	76	49	1355	146	149	8	233	155	1198	13	3430
PHF	0.705			0.966			0.947			0.938			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	3	0	0	1	2	2	2	0
11:15	8	0	2	0	0	0	5	0
11:30	0	0	0	0	2	0	5	0
11:45	2	0	1	0	0	0	6	0
12:00	0	0	0	0	0	2	2	2
12:15	13	0	0	0	14	0	8	0
12:30	3	0	1	0	2	0	5	0
12:45	2	0	1	0	0	0	5	0
1:00	8	1	0	0	1	0	11	0
1:15	2	0	0	0	12	1	10	0
1:30	5	1	0	0	4	0	2	0
1:45	5	0	0	0	4	0	0	0
2:00	4	0	2	0	3	1	0	0
2:15	2	0	0	0	3	0	4	0
2:30	7	1	0	0	4	0	3	1
2:45	0	0	0	0	5	0	4	0

Turning Movement Count Report AM

Location ID: 10
North/South: Figueroa St
East/West: Jefferson Blvd

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	16	63	19	46	164	12	3	417	59	30	109	31	969
7:15	26	103	14	38	181	16	10	450	70	46	126	38	1118
7:30	24	167	35	39	180	16	8	449	75	70	134	34	1231
7:45	33	176	45	50	160	29	6	402	62	77	155	34	1229
8:00	48	161	26	28	136	17	13	445	55	32	158	61	1180
8:15	23	93	11	39	138	21	10	380	60	46	157	30	1008
8:30	36	94	14	46	132	22	14	418	70	48	131	35	1060
8:45	37	98	10	45	154	22	19	371	56	41	132	30	1015
9:00	23	91	18	28	121	16	16	350	69	42	127	36	937
9:15	32	102	16	44	130	22	13	257	42	36	91	23	808
9:30	28	98	15	30	88	21	17	276	49	46	75	30	773
9:45	40	112	17	39	107	31	16	243	50	52	91	31	829

Total Volume:	366	1358	240	472	1691	245	145	4458	717	566	1486	413	12157
Approach %	19%	69%	12%	20%	70%	10%	3%	84%	13%	23%	60%	17%	

Peak Hr Begin:	7:15												
PHV	131	607	120	155	657	78	37	1746	262	225	573	167	4758
PHF	0.844			0.931			0.961			0.907			0.000

Turning Movement Count Report PM

Location ID: 10
North/South: Figueroa St
East/West: Jefferson Blvd

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	39	196	24	38	100	15	8	221	44	50	182	40	957
15:15	32	160	20	35	128	18	11	222	43	84	168	49	970
15:30	35	206	35	41	126	30	17	278	48	82	159	52	1109
15:45	38	202	26	49	144	24	14	268	42	89	208	72	1176
16:00	35	227	25	35	110	13	19	288	54	85	200	49	1140
16:15	31	195	24	52	129	25	16	263	40	100	217	68	1160
16:30	38	197	25	48	145	22	15	265	59	102	188	55	1159
16:45	26	169	20	51	185	32	17	262	52	103	209	54	1180
17:00	25	217	20	37	163	19	31	289	62	116	193	76	1248
17:15	35	190	35	57	196	25	26	283	66	125	230	68	1336
17:30	32	224	30	46	198	25	25	302	60	96	216	55	1309
17:45	23	226	26	49	216	35	15	269	47	112	237	59	1314
Total Volume:	389	2409	310	538	1840	283	214	3210	617	1144	2407	697	14058
Approach %	13%	78%	10%	20%	69%	11%	5%	79%	15%	27%	57%	16%	
Peak Hr Begin:	17:00												
PHV	115	857	111	189	773	104	97	1143	235	449	876	258	5207
PHF	0.947			0.888			0.953			0.936			0.000

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	18	4	11	1	21	3	22	2
7:15	19	1	10	3	22	3	36	4
7:30	40	5	19	4	22	5	68	8
7:45	57	10	20	7	24	14	114	17
8:00	34	4	13	2	22	2	49	6
8:15	30	5	16	3	21	5	44	9
8:30	25	2	14	2	22	5	38	7
8:45	17	4	22	4	26	8	55	10
9:00	25	2	23	2	11	5	46	10
9:15	28	3	12	2	20	4	53	8
9:30	22	3	11	5	10	7	63	2
9:45	36	8	21	10	28	16	82	18

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	25	4	21	8	29	5	78	13
15:15	26	10	15	9	47	8	94	13
15:30	32	6	15	4	33	2	123	15
15:45	36	10	14	6	30	8	101	19
16:00	34	2	21	4	33	3	117	16
16:15	29	1	14	2	38	4	155	7
16:30	29	7	17	2	41	22	96	12
16:45	38	7	15	6	48	14	112	17
17:00	47	3	16	6	40	9	134	21
17:15	42	9	25	3	36	10	108	14
17:30	34	6	26	4	32	3	126	20
17:45	28	11	22	10	24	6	112	31

Turning Movement Count Report Saturday Midday

Location ID: 10
North/South: Figueroa Street
East/West: Jefferson Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	29	98	19	30	71	10	16	162	28	31	68	32	594
11:15	27	121	21	37	66	6	18	164	25	46	84	27	642
11:30	27	142	32	42	73	13	17	171	30	37	87	22	693
11:45	43	158	39	43	68	12	13	219	35	42	72	24	768
12:00	29	132	23	42	84	17	13	171	34	51	91	19	706
12:15	32	136	25	45	70	9	16	216	29	38	96	26	738
12:30	28	152	31	34	103	14	9	188	36	43	95	28	761
12:45	39	159	33	37	89	21	12	215	46	54	84	35	824
1:00	37	163	21	53	73	17	15	216	34	61	101	31	822
1:15	24	179	30	39	94	18	23	216	31	48	101	35	838
1:30	24	177	25	43	114	29	11	208	30	64	114	32	871
1:45	38	195	24	32	77	19	15	186	34	49	105	26	800
2:00	33	163	47	33	85	23	18	164	29	67	116	27	805
2:15	40	194	25	33	83	23	18	219	38	56	102	34	865
2:30	34	212	28	41	73	13	13	182	21	73	131	28	849
2:45	35	188	24	38	87	18	18	225	31	58	95	19	836

Total Volume:	519	2569	447	622	1310	262	245	3122	511	818	1542	445	12412
Approach %	15%	73%	13%	28%	60%	12%	6%	81%	13%	29%	55%	16%	

Peak Hr Begin:	12:45												
PHV	124	678	109	172	370	85	61	855	141	227	400	133	3355
PHF	0.977			0.843			0.968			0.905			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	7	0	3	1	0	1	7	2
11:15	13	0	19	3	0	0	16	2
11:30	27	1	13	1	0	0	19	2
11:45	26	1	14	1	1	0	19	2
12:00	24	2	9	4	0	0	31	4
12:15	28	1	13	0	0	0	23	2
12:30	16	6	18	3	0	0	44	6
12:45	18	5	11	0	3	0	35	4
1:00	18	0	9	0	0	2	35	0
1:15	18	2	13	2	0	2	42	7
1:30	27	1	14	2	0	0	30	6
1:45	29	1	16	1	0	0	41	0
2:00	26	2	7	8	1	1	35	4
2:15	24	3	10	5	1	1	47	9
2:30	15	2	11	1	2	3	23	4
2:45	28	5	16	0	1	0	27	2

Turning Movement Count Report AM

Location ID: 11
North/South: Figueroa Street
East/West: Exposition Boulevard / 37th Street
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	24	56	7	50	112	8	3	351	54	28	182	92	967
7:15	35	71	22	32	106	13	2	369	56	47	200	105	1058
7:30	30	94	44	71	174	15	8	321	66	80	241	142	1286
7:45	23	159	52	59	148	13	12	350	63	118	204	125	1326
8:00	49	109	17	46	137	15	4	324	69	107	253	114	1244
8:15	51	106	17	59	140	10	6	368	47	58	235	99	1196
8:30	33	65	11	56	127	12	10	303	46	33	257	110	1063
8:45	48	74	26	56	135	7	11	396	34	28	185	73	1073
9:00	35	60	23	77	126	5	7	301	39	35	208	72	988
9:15	42	81	27	61	123	8	6	287	41	30	137	70	913
9:30	46	81	22	69	146	7	9	210	44	23	154	61	872
9:45	54	71	28	84	140	12	1	259	70	15	123	52	909
Total Volume:	470	1027	296	720	1614	125	79	3839	629	602	2379	1115	12895
Approach %	26%	57%	17%	29%	66%	5%	2%	84%	14%	15%	58%	27%	
Peak Hr Begin:	7:30												
PHV	153	468	130	235	599	53	30	1363	245	363	933	480	5052
PHF	0.802			0.853			0.964			0.937			0.000

Turning Movement Count Report PM

Location ID: 11
North/South: Figueroa Street
East/West: Exposition Boulevard / 37th Street
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	44	180	31	41	87	13	14	165	35	50	178	73	911
15:15	42	214	28	64	115	9	5	206	50	47	135	65	980
15:30	49	185	48	71	133	14	5	154	31	69	142	61	962
15:45	49	219	32	53	91	16	6	168	39	92	147	64	976
16:00	47	222	31	67	119	19	10	199	47	72	132	74	1039
16:15	54	273	34	55	114	15	5	204	46	76	129	62	1067
16:30	53	212	39	64	160	13	2	154	34	74	141	60	1006
16:45	63	232	31	68	152	11	5	196	50	73	113	73	1067
17:00	63	221	30	74	157	6	7	203	57	94	136	85	1133
17:15	65	230	37	79	155	12	8	216	67	98	146	83	1196
17:30	64	215	27	69	173	7	8	225	47	73	147	89	1144
17:45	61	217	37	97	172	5	8	210	55	68	107	62	1099
18:00	68	170	31	93	195	7	5	208	57	60	141	72	1107
18:15	40	202	29	65	167	5	5	234	60	60	110	57	1034
18:30	61	192	36	68	149	11	4	149	41	69	147	58	985
18:45	68	206	21	58	141	5	2	177	49	43	86	69	925
Total Volume:	891	3390	522	1086	2280	168	99	3068	765	1118	2137	1107	16631
Approach %	19%	71%	11%	31%	65%	5%	3%	78%	19%	26%	49%	25%	
Peak Hr Begin:	17:00												
PHV	253	883	131	319	657	30	31	854	226	333	536	319	4572
PHF	0.954			0.918			0.954			0.908			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	28	3	22	2	9	1	7	2
7:15	42	1	35	6	8	9	14	3
7:30	107	3	55	6	40	3	30	2
7:45	169	6	118	3	53	2	68	4
8:00	107	1	42	1	41	2	42	2
8:15	108	1	48	4	23	4	27	5
8:30	97	2	54	2	40	1	39	3
8:45	116	6	87	3	42	2	38	1
9:00	101	3	41	1	40	1	33	1
9:15	165	14	105	10	49	6	52	5
9:30	141	7	69	7	53	6	40	2
9:45	169	11	112	5	55	6	69	4

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	96	5	52	5	50	1	47	2
15:15	113	7	50	4	64	0	68	1
15:30	153	13	66	7	46	0	45	5
15:45	141	5	87	16	48	0	37	2
16:00	142	5	51	5	101	4	81	10
16:15	93	5	70	2	65	1	70	1
16:30	102	3	51	3	47	3	46	8
16:45	88	2	62	3	45	3	61	6
17:00	148	3	68	6	91	11	80	7
17:15	107	5	74	7	80	10	97	10
17:30	114	13	67	17	82	9	64	5
17:45	135	10	84	7	96	8	111	17
18:00	160	6	82	6	145	12	125	12
18:15	90	5	66	7	95	7	98	8
18:30	92	5	59	5	90	6	76	9
18:45	107	7	94	5	47	2	51	3

Turning Movement Count Report Saturday Midday

Location ID: 11
North/South: Figueroa Street
East/West: Exposition Boulevard / 37th Street
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	22	98	34	42	88	4	10	146	21	32	111	25	633
11:15	27	116	25	49	94	11	7	148	29	46	83	22	657
11:30	30	127	35	38	83	11	10	147	24	60	97	20	682
11:45	26	156	19	54	95	12	8	192	33	35	97	33	760
12:00	27	157	27	38	80	11	11	133	44	46	100	37	711
12:15	27	126	16	31	112	12	7	183	38	55	86	37	730
12:30	23	172	28	39	84	8	13	161	28	45	122	31	754
12:45	33	165	41	34	112	20	16	187	45	48	94	40	835
1:00	26	178	35	38	83	17	8	180	42	54	117	32	810
1:15	29	188	43	36	108	13	12	181	39	63	75	40	827
1:30	52	193	37	43	112	14	6	166	37	49	121	28	858
1:45	41	179	26	29	115	17	17	160	52	67	111	38	852
2:00	40	216	35	34	88	13	11	145	34	58	114	31	819
2:15	34	186	26	45	102	14	18	164	38	39	121	38	825
2:30	34	225	46	47	84	12	14	158	25	57	129	27	858
2:45	36	188	37	43	100	15	13	190	35	63	98	35	853
Total Volume:	507	2670	510	640	1540	204	181	2641	564	817	1676	514	12464
Approach %	14%	72%	14%	27%	65%	9%	5%	78%	17%	27%	56%	17%	
Peak Hr Begin:	1:15												
PHV	162	776	141	142	423	57	46	652	162	237	421	137	3356
PHF	0.927			0.920			0.927			0.920			0.000

Pedestrian/Bicycle Count Report

	North		*East*		*South*		*West*	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	15	1	21	4	10	2	10	1
11:15	31	2	19	4	13	1	13	1
11:30	15	0	16	2	17	3	13	1
11:45	15	1	19	2	7	2	8	2
12:00	17	2	17	2	68	3	65	3
12:15	17	1	23	1	17	0	19	1
12:30	20	1	27	2	35	2	20	3
12:45	28	2	26	3	34	1	17	2
1:00	25	0	18	2	8	2	14	1
1:15	22	1	12	2	23	1	23	4
1:30	20	0	15	2	17	1	5	3
1:45	23	0	15	2	7	1	9	4
2:00	27	0	19	9	10	3	17	3
2:15	18	2	13	2	15	2	13	3
2:30	21	0	28	2	17	1	10	3
2:45	23	0	26	1	15	1	5	2

Turning Movement Count Report AM

Location ID: 12
North/South: Figueroa Street
East/West: 38th Place / Flower Street

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	L-Flower	T	L	R	T	L	R	T	R-Flower	R-Flower	R	L	
7:00	2	92	2	3	27	1	3	437	54	1	0	0	622
7:15	1	107	4	5	28	0	0	451	47	0	0	0	643
7:30	0	151	1	5	46	0	1	390	53	2	0	0	649
7:45	3	217	2	4	49	0	3	393	65	0	0	0	736
8:00	1	226	3	5	56	0	5	371	67	3	0	0	737
8:15	2	136	0	7	37	1	2	375	66	1	0	0	627
8:30	2	105	2	5	46	2	6	340	91	0	0	0	599
8:45	3	105	1	7	25	3	3	405	73	2	0	0	627
9:00	5	85	4	8	38	1	1	322	62	0	0	0	526
9:15	5	102	1	6	34	2	1	300	36	1	0	0	488
9:30	2	119	1	9	34	1	2	269	32	1	0	0	470
9:45	6	93	3	10	33	1	1	284	19	0	0	0	450
Total Volume:	32	1538	24	74	453	12	28	4337	665	11	0	0	7174
Approach %	2%	96%	2%	14%	84%	2%	1%	86%	13%	100%	0%	0%	
Peak Hr Begin:	7:15												
PHV	5	701	10	19	179	0	9	1605	232	5	0	0	2765
PHF	0.778			0.811			0.927			0.417			0.000

Turning Movement Count Report PM

Location ID: 12
North/South: Figueroa Street
East/West: 38th Place / Flower Street

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	L-Flower	T	L	R	T	L	R	T	R-Flower	R-Flower	R	L	
15:00	10	253	9	11	83	0	1	183	16	0	0	0	566
15:15	4	225	9	10	89	1	3	165	21	1	0	0	528
15:30	4	287	14	8	83	2	2	186	14	0	0	0	600
15:45	6	273	3	9	108	1	0	205	17	2	0	0	624
16:00	3	323	8	15	118	1	0	194	24	2	0	0	688
16:15	10	312	12	12	122	2	4	197	19	3	0	0	693
16:30	4	323	9	9	119	3	2	175	12	0	0	0	656
16:45	5	277	9	13	123	2	2	203	20	1	0	0	655
17:00	4	303	11	17	125	1	0	205	16	2	0	0	684
17:15	5	304	12	15	173	2	3	231	9	0	0	0	754
17:30	11	309	11	7	109	2	1	198	15	0	0	0	663
17:45	7	244	5	9	103	1	2	187	7	1	0	0	566
18:00	5	252	6	16	107	1	0	192	14	1	0	0	594
18:15	5	223	15	15	153	1	1	213	15	2	0	0	643
18:30	3	279	6	6	122	0	5	151	8	1	0	0	581
18:45	7	208	6	9	119	2	1	170	6	0	0	0	528
Total Volume:	93	4395	145	181	1856	22	27	3055	233	16	0	0	10023
Approach %	2%	95%	3%	9%	90%	1%	1%	92%	7%	100%	0%	0%	
Peak Hr Begin:	16:45												
PHV	25	1193	43	52	530	7	6	837	60	3	0	0	2756
PHF	0.952			0.775			0.929			0.375			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	3	1	1	4	0	0	0	0
7:15	1	1	1	2	0	0	0	0
7:30	3	1	3	3	0	0	0	0
7:45	8	2	2	2	0	0	0	0
8:00	4	0	4	0	0	0	0	0
8:15	2	1	5	3	0	0	0	0
8:30	5	0	2	2	0	0	0	0
8:45	4	0	2	0	0	0	0	0
9:00	4	0	2	4	0	0	0	0
9:15	4	2	6	4	0	0	0	0
9:30	0	2	3	1	0	0	0	0
9:45	6	0	3	2	0	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	4	0	6	2	0	0	0	0
15:15	1	2	4	3	0	0	0	0
15:30	3	0	4	1	0	0	0	0
15:45	4	0	0	3	0	0	0	0
16:00	4	4	6	4	0	0	0	0
16:15	0	3	2	3	0	0	0	0
16:30	16	0	6	4	0	0	0	0
16:45	4	0	7	3	0	0	0	0
17:00	1	1	3	1	0	0	0	0
17:15	4	0	2	1	0	0	0	0
17:30	0	1	1	1	0	0	0	0
17:45	2	0	2	1	0	0	0	0
18:00	3	2	4	3	0	0	0	0
18:15	2	1	2	5	0	0	0	0
18:30	4	1	4	2	0	0	0	0
18:45	2	0	6	0	0	0	0	0

Turning Movement Count Report Saturday Midday

Location ID: 12
North/South: Figueroa Street
East/West: 38th Place / Flower Street

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	L-Flower	T	L	R	T	L	R	T	R-Flower	R-Flower	R	L	
11:00	4	135	0	11	50	2	1	194	5	0	0	0	402
11:15	4	175	3	7	49	1	1	176	10	1	0	0	427
11:30	4	202	5	8	51	0	1	174	15	0	0	0	460
11:45	9	195	4	11	37	1	1	233	10	0	0	0	501
12:00	7	197	3	10	52	1	1	189	12	1	0	0	473
12:15	3	183	5	4	63	0	3	215	18	0	0	0	494
12:30	14	188	4	14	61	0	2	199	7	2	0	0	491
12:45	8	232	2	14	63	3	10	234	15	0	0	0	581
1:00	9	257	6	17	64	1	2	240	19	0	0	0	615
1:15	15	241	4	12	58	0	1	207	11	0	0	0	549
1:30	6	239	2	11	70	1	0	211	22	1	1	0	564
1:45	4	262	1	14	62	2	8	203	13	0	0	0	569
2:00	6	262	8	10	68	0	7	199	12	1	0	0	573
2:15	7	254	5	27	76	1	2	196	27	0	1	0	596
2:30	1	291	4	9	76	0	3	207	15	0	0	0	606
2:45	11	252	5	7	63	0	4	211	23	0	2	0	578
Total Volume:	112	3565	61	186	963	13	47	3288	234	6	4	0	8479
Approach %	3%	95%	2%	16%	83%	1%	1%	92%	7%	60%	40%	0%	
Peak Hr Begin:	2:00												
PHV	25	1059	22	53	283	1	16	813	77	1	3	0	2353
PHF		0.934			0.810			0.952			0.500		0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	5	1	3	1	0	0	0	0
11:15	2	1	6	0	0	0	0	0
11:30	1	2	2	2	0	0	0	0
11:45	1	0	1	1	0	0	0	0
12:00	1	0	0	1	0	0	0	0
12:15	5	0	24	2	0	0	0	0
12:30	0	0	5	0	0	0	0	0
12:45	3	0	8	0	0	0	0	0
1:00	6	1	10	1	0	0	0	0
1:15	2	0	7	2	0	0	0	0
1:30	4	0	5	2	0	0	0	0
1:45	3	1	7	0	0	0	0	0
2:00	6	1	9	0	0	0	0	0
2:15	3	1	12	0	0	0	0	0
2:30	3	1	5	0	0	0	0	0
2:45	2	3	3	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 13
North/South: Figueroa Street
East/West: 39th Street / Coliseum

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	1	75	16	60	2	30	56	427	4	0	0	0	671
7:15	2	104	22	50	3	20	51	431	9	1	1	0	694
7:30	6	142	15	68	7	17	92	395	8	0	2	2	754
7:45	0	172	29	64	11	25	85	379	24	0	2	4	795
8:00	4	189	28	67	16	21	64	360	42	1	4	10	806
8:15	5	106	19	50	14	15	64	366	13	1	8	11	672
8:30	4	92	20	65	5	24	50	388	17	0	1	3	669
8:45	3	93	14	43	3	26	57	407	17	0	0	1	664
9:00	0	83	19	47	4	20	42	327	43	1	2	1	589
9:15	1	105	7	41	12	22	27	289	9	2	2	2	519
9:30	1	124	8	64	8	20	21	236	8	0	0	0	490
9:45	2	99	8	55	5	18	26	245	11	0	0	2	471
Total Volume:	29	1384	205	674	90	258	635	4250	205	6	22	36	7794
Approach %	2%	86%	13%	66%	9%	25%	12%	83%	4%	9%	34%	56%	
Peak Hr Begin:	7:15												
PHV	12	607	94	249	37	83	292	1565	83	2	9	16	3049
PHF	0.807			0.887			0.980			0.450			0.000

Turning Movement Count Report PM

Location ID: 13
North/South: Figueroa Street
East/West: 39th Street / Coliseum

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	1	286	34	20	3	44	28	157	4	1	4	10	592
15:15	3	297	29	38	2	28	36	175	1	1	7	9	626
15:30	0	295	41	40	5	45	30	149	11	1	8	8	633
15:45	0	326	45	40	6	46	33	181	12	6	8	15	718
16:00	1	366	45	35	5	51	44	168	11	5	4	12	747
16:15	2	368	42	38	9	56	39	159	9	2	7	12	743
16:30	3	341	48	31	4	67	38	129	12	2	4	13	692
16:45	1	359	39	48	6	58	31	178	11	0	5	14	750
17:00	0	363	45	44	5	53	24	156	11	4	5	16	726
17:15	1	404	69	49	6	54	38	177	11	2	13	31	855
17:30	2	321	58	43	4	74	31	153	5	2	9	18	720
17:45	2	307	49	41	7	57	40	166	4	3	5	7	688
18:00	0	276	50	48	6	68	25	142	2	0	4	12	633
18:15	1	359	51	40	0	57	24	173	1	0	4	15	725
18:30	1	344	49	39	4	72	20	105	2	1	1	9	647
18:45	0	315	44	32	1	42	28	150	0	0	3	3	618

Total Volume:	18	5327	738	626	73	872	509	2518	107	30	91	204	11113
Approach %	0%	88%	12%	40%	5%	56%	16%	80%	3%	9%	28%	63%	

Peak Hr Begin:	16:45												
PHV	4	1447	211	184	21	239	124	664	38	8	32	79	3051
PHF		0.877			0.917			0.914			0.647		0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	1	1	7	6	0	0	5	1
7:15	0	0	2	5	0	0	12	5
7:30	1	3	3	4	0	0	10	6
7:45	2	2	2	3	0	0	24	3
8:00	3	0	15	0	0	0	18	2
8:15	2	0	7	4	0	1	16	6
8:30	1	0	7	2	0	0	8	2
8:45	4	1	5	1	0	1	12	2
9:00	1	2	2	6	2	0	8	2
9:15	0	1	10	2	0	0	7	1
9:30	3	1	9	4	0	0	5	0
9:45	0	0	2	2	0	0	12	2

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	1	0	8	1	2	0	5	3
15:15	3	2	9	4	0	0	14	1
15:30	2	0	10	1	0	0	10	4
15:45	2	1	2	3	0	0	9	4
16:00	2	0	11	2	0	1	11	3
16:15	3	1	12	3	1	0	10	1
16:30	7	0	14	5	0	0	12	3
16:45	2	0	11	2	1	0	19	3
17:00	0	2	7	3	0	1	13	5
17:15	0	1	3	5	0	0	7	3
17:30	5	1	10	1	0	0	13	0
17:45	2	1	1	1	0	0	22	2
18:00	3	1	11	5	0	0	7	5
18:15	4	2	9	8	0	0	19	7
18:30	2	0	7	1	0	0	11	3
18:45	0	1	7	1	0	0	15	4

Turning Movement Count Report Saturday Midday

Location ID: 13
North/South: Figueroa Street
East/West: 39th Street / Coliseum

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	12	142	10	23	4	20	18	165	23	4	2	7	430
11:15	8	166	18	22	6	22	16	159	28	4	1	7	457
11:30	8	155	10	13	4	20	16	174	29	4	3	14	450
11:45	5	164	13	17	7	26	19	191	31	0	3	14	490
12:00	9	205	19	25	5	31	24	161	31	1	7	21	539
12:15	6	175	19	29	5	39	23	162	20	1	5	25	509
12:30	4	206	15	26	6	21	26	174	23	3	6	22	532
12:45	9	193	17	25	9	44	15	186	19	5	8	28	558
1:00	5	226	12	23	12	42	21	190	19	9	7	25	591
1:15	4	228	23	31	8	27	20	158	16	7	4	21	547
1:30	8	245	9	27	11	37	21	173	27	4	7	24	593
1:45	3	246	19	30	11	35	25	154	21	5	8	26	583
2:00	9	244	14	28	7	40	24	161	25	10	6	24	592
2:15	6	258	18	25	10	33	24	160	23	2	5	29	593
2:30	3	254	27	43	2	41	29	153	25	8	12	26	623
2:45	8	255	26	23	9	32	25	179	24	10	5	30	626
Total Volume:	107	3362	269	410	116	510	346	2700	384	77	89	343	8713
Approach %	3%	90%	7%	40%	11%	49%	10%	79%	11%	15%	17%	67%	
Peak Hr Begin:	2:00												
PHV	26	1011	85	119	28	146	102	653	97	30	28	109	2434
PHF	0.971			0.852			0.934			0.908			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	7	1	19	1	0	0	8	5
11:15	11	0	12	1	0	0	3	0
11:30	2	0	7	1	0	0	4	5
11:45	9	0	7	2	0	0	9	0
12:00	4	0	5	0	0	0	3	0
12:15	10	1	4	2	1	0	11	1
12:30	6	0	9	0	0	0	11	1
12:45	7	0	8	0	0	0	6	3
1:00	14	0	12	0	0	0	11	0
1:15	6	0	4	0	0	0	13	3
1:30	13	2	14	0	0	0	12	1
1:45	7	1	4	1	0	0	5	5
2:00	4	3	9	0	0	0	3	7
2:15	9	1	7	2	0	0	7	2
2:30	5	1	2	0	0	0	3	3
2:45	1	2	7	0	0	0	4	2

Turning Movement Count Report AM

Location ID: 14
North/South: Figueroa Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	27	66	14	19	248	26	65	369	21	16	381	130	1382
7:15	31	85	22	26	272	28	57	341	17	12	422	101	1414
7:30	36	101	14	19	220	45	50	359	11	10	359	122	1346
7:45	43	123	17	24	265	53	78	348	11	7	336	104	1409
8:00	61	112	31	22	216	34	72	346	22	15	360	106	1397
8:15	29	110	18	28	275	31	65	313	16	13	408	109	1415
8:30	23	54	18	29	180	27	75	359	26	16	394	76	1277
8:45	29	72	26	33	259	17	51	324	22	11	409	81	1334
9:00	30	62	18	19	238	18	52	310	38	7	351	78	1221
9:15	30	80	19	23	262	29	50	252	42	16	336	49	1188
9:30	38	70	22	20	284	25	29	202	25	9	271	54	1049
9:45	28	58	16	22	288	22	33	187	24	10	251	60	999

Total Volume:	405	993	235	284	3007	355	677	3710	275	142	4278	1070	15431
Approach %	25%	61%	14%	8%	82%	10%	15%	80%	6%	3%	78%	19%	

Peak Hr Begin:	7:30												
PHV	169	446	80	93	976	163	265	1366	60	45	1463	441	5567
PHF	0.852			0.901			0.961			0.919			0.000

Turning Movement Count Report PM

Location ID: 14
North/South: Figueroa Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	69	205	54	23	243	58	26	114	24	19	271	59	1165
15:15	65	209	53	25	248	76	36	134	18	21	245	45	1175
15:30	64	207	51	20	253	60	25	116	22	32	283	63	1196
15:45	65	244	64	27	269	71	30	136	28	28	245	58	1265
16:00	87	258	73	16	334	62	25	114	32	28	262	63	1354
16:15	77	285	61	21	265	75	26	126	26	40	210	48	1260
16:30	78	296	41	24	266	70	19	123	21	28	255	56	1277
16:45	67	314	51	19	302	66	23	140	19	29	251	52	1333
17:00	85	296	48	21	307	62	33	113	22	35	225	52	1299
17:15	84	328	65	23	319	69	31	132	14	36	219	48	1368
17:30	87	268	42	14	354	61	32	128	23	35	269	56	1369
17:45	59	250	46	17	351	86	36	123	29	24	202	48	1271
18:00	82	291	37	29	335	68	20	90	22	42	223	51	1290
18:15	71	287	39	23	325	90	22	109	15	27	210	45	1263
18:30	88	266	47	14	354	62	20	80	19	28	242	43	1263
18:45	56	253	44	23	348	75	22	93	20	30	240	43	1247

Total Volume:	1184	4257	816	339	4873	1111	426	1871	354	482	3852	830	20395
Approach %	19%	68%	13%	5%	77%	18%	16%	71%	13%	9%	75%	16%	

Peak Hr Begin:	16:45												
PHV	323	1206	206	77	1282	258	119	513	78	135	964	208	5369
PHF	0.909			0.942			0.970			0.908			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	5	2	17	2	12	5	3	0
7:15	9	3	16	4	20	4	7	4
7:30	5	4	11	2	18	3	13	4
7:45	11	1	16	3	22	0	23	6
8:00	8	0	20	1	21	2	17	3
8:15	3	2	15	0	12	2	10	6
8:30	4	0	20	3	12	2	9	2
8:45	3	2	21	1	11	1	13	1
9:00	6	0	8	1	8	1	15	4
9:15	10	0	9	1	7	3	8	4
9:30	11	2	12	0	10	0	11	1
9:45	6	0	9	1	7	1	3	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	7	2	6	1	15	1	10	4
15:15	6	4	19	3	8	1	13	2
15:30	17	0	33	2	31	0	17	4
15:45	8	1	22	2	11	1	18	4
16:00	4	1	6	1	13	2	10	7
16:15	7	3	13	5	14	0	11	8
16:30	10	0	9	1	15	1	5	3
16:45	10	1	10	2	18	3	13	4
17:00	7	2	30	4	25	3	10	6
17:15	13	3	15	8	9	2	9	3
17:30	15	6	11	2	10	2	15	11
17:45	8	1	9	4	11	2	15	4
18:00	11	4	12	1	10	2	8	5
18:15	5	2	23	8	11	6	11	5
18:30	9	2	18	2	19	5	15	8
18:45	8	1	19	1	9	7	14	9

Turning Movement Count Report Saturday Midday

Location ID: 14
North/South: Figueroa Street
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	56	84	28	46	198	35	38	116	27	24	245	55	952
11:15	59	97	44	39	248	35	26	112	24	21	236	32	973
11:30	55	88	37	55	234	49	36	115	29	18	267	51	1034
11:45	48	106	37	51	251	46	51	142	28	16	245	13	1034
12:00	71	129	28	43	256	45	35	107	28	23	261	53	1079
12:15	64	117	42	27	258	45	41	139	38	21	235	33	1060
12:30	71	131	38	41	272	50	53	127	36	37	272	52	1180
12:45	59	138	45	28	299	52	46	133	28	25	286	53	1192
1:00	78	154	54	31	280	52	45	134	28	24	267	55	1202
1:15	77	136	53	36	275	50	39	115	34	36	264	59	1174
1:30	75	153	56	27	259	54	36	124	37	29	280	48	1178
1:45	82	158	59	38	309	43	42	108	29	28	292	59	1247
2:00	82	172	63	28	268	42	36	105	27	33	259	60	1175
2:15	89	163	52	38	277	58	29	112	29	22	294	59	1222
2:30	82	204	50	28	266	49	40	117	22	29	296	59	1242
2:45	93	169	58	36	292	48	31	138	24	25	242	45	1201

Total Volume:	1141	2199	744	592	4242	753	624	1944	468	411	4241	786	18145
Approach %	28%	54%	18%	11%	76%	13%	21%	64%	15%	8%	78%	14%	

Peak Hr Begin:	1:45												
PHV	335	697	224	132	1120	192	147	442	107	112	1141	237	4886
PHF	0.935			0.926			0.972			0.970			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	11	0	34	0	15	3	15	4
11:15	6	1	24	1	18	1	6	1
11:30	9	2	21	8	12	3	2	3
11:45	20	1	15	4	15	2	2	0
12:00	11	3	19	1	15	0	8	4
12:15	5	2	11	3	10	2	6	1
12:30	9	3	12	1	22	0	6	3
12:45	8	1	10	1	14	3	4	4
1:00	8	2	15	3	22	0	7	0
1:15	9	8	20	2	13	3	24	6
1:30	1	0	8	3	12	3	5	2
1:45	12	5	12	2	9	0	11	3
2:00	16	0	18	5	11	4	14	11
2:15	6	1	28	3	17	1	9	4
2:30	13	2	20	3	17	4	16	6
2:45	5	1	21	2	13	2	4	0

Turning Movement Count Report AM

Location ID: 15
North/South: Flower Street
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	17	83	0	0	91	18	63	0	53	0	0	0	325
7:15	22	131	0	0	92	15	72	0	73	0	0	0	405
7:30	20	142	0	0	113	19	97	0	71	0	0	0	462
7:45	24	113	0	0	105	8	115	0	126	0	0	0	491
8:00	28	133	0	0	89	15	97	0	94	0	0	0	456
8:15	29	147	0	0	81	12	103	0	68	0	0	0	440
8:30	19	116	0	0	83	8	107	0	57	0	0	0	390
8:45	27	123	0	0	56	11	119	0	100	0	0	0	436
9:00	18	109	0	0	61	6	127	0	120	0	0	0	441
9:15	22	101	0	0	68	6	116	0	89	0	0	0	402
9:30	32	114	0	0	102	30	106	0	109	0	0	0	493
9:45	36	85	0	0	93	19	105	0	105	0	0	0	443
Total Volume:	294	1397	0	0	1034	167	1227	0	1065	0	0	0	5184
Approach %	17%	83%	0%	0%	86%	14%	54%	0%	46%	0%	0%	0%	
Peak Hr Begin:	7:30												
PHV	101	535	0	0	388	54	412	0	359	0	0	0	1849
PHF	0.903			0.837			0.800			0.000			0.000

Turning Movement Count Report PM

Location ID: 15
North/South: Flower Street
East/West: Exposition Boulevard

Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	35	252	0	0	66	11	35	0	28	0	0	0	427
15:15	37	254	0	0	108	16	49	0	24	0	0	0	488
15:30	43	239	0	0	93	15	61	0	33	0	0	0	484
15:45	28	298	0	0	88	16	47	0	32	0	0	0	509
16:00	50	286	0	0	92	19	43	0	33	0	0	0	523
16:15	51	309	0	0	85	15	36	0	30	0	0	0	526
16:30	53	300	0	0	134	14	41	0	25	0	0	0	567
16:45	42	301	0	0	146	10	35	0	18	0	0	0	552
17:00	56	300	0	0	127	18	51	0	27	0	0	0	579
17:15	54	334	0	0	134	21	33	0	16	0	0	0	592
17:30	42	227	0	0	143	14	43	0	11	0	0	0	480
17:45	47	261	0	0	181	17	43	0	12	0	0	0	561
18:00	56	272	0	0	150	19	69	0	24	0	0	0	590
18:15	61	323	0	0	119	8	57	0	14	0	0	0	582
18:30	44	287	0	0	115	9	61	0	21	0	0	0	537
18:45	50	236	0	0	109	7	48	0	21	0	0	0	471
Total Volume:	749	4479	0	0	1890	229	752	0	369	0	0	0	8468
Approach %	14%	86%	0%	0%	89%	11%	67%	0%	33%	0%	0%	0%	
Peak Hr Begin:	16:30												
PHV	205	1235	0	0	541	63	160	0	86	0	0	0	2290
PHF	0.928			0.968			0.788			0.000			0.000

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	2	0	3	0	0	0	2	0
7:15	0	0	0	1	0	0	3	0
7:30	0	0	0	1	0	3	1	0
7:45	0	0	2	0	1	0	7	0
8:00	2	0	2	0	0	0	1	1
8:15	0	0	1	0	0	0	1	0
8:30	0	0	0	0	0	0	2	0
8:45	0	0	1	0	0	0	1	0
9:00	2	0	3	0	0	0	0	0
9:15	3	0	1	0	0	0	1	0
9:30	0	0	1	0	1	1	2	2
9:45	7	0	5	0	1	0	3	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	3	0	1	0	0	0	3	0
15:15	2	1	1	0	6	0	2	1
15:30	2	0	1	0	6	2	6	2
15:45	1	0	1	0	4	0	2	0
16:00	0	0	1	0	2	0	1	0
16:15	1	0	2	0	3	0	2	0
16:30	2	0	1	0	2	0	0	0
16:45	1	0	1	0	9	1	3	0
17:00	1	0	3	0	11	2	5	0
17:15	1	0	3	0	8	2	3	0
17:30	2	0	1	0	5	1	1	0
17:45	0	0	1	0	2	1	1	0
18:00	3	2	2	0	12	0	10	0
18:15	1	0	0	0	6	0	2	0
18:30	1	1	2	0	4	1	1	0
18:45	0	0	2	1	2	1	5	0

Turning Movement Count Report Saturday Midday

Location ID: 15
North/South: Flower Street
East/West: Exposition Boulevard

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	15	129	0	0	51	2	70	27	0	0	0	0	294
11:15	18	119	0	0	64	9	88	40	0	0	0	0	338
11:30	14	124	0	0	44	2	70	45	0	0	0	0	299
11:45	9	105	0	0	61	8	88	33	0	0	0	0	304
12:00	16	146	0	0	74	7	53	32	0	0	0	0	328
12:15	21	138	0	0	62	8	65	37	0	0	0	0	331
12:30	23	129	0	0	50	8	73	45	0	0	0	0	328
12:45	17	149	0	0	91	11	64	36	0	0	0	0	368
1:00	11	153	0	0	60	5	55	44	0	0	0	0	328
1:15	25	165	0	0	86	11	61	24	0	0	0	0	372
1:30	18	188	0	0	83	11	71	37	0	0	0	0	408
1:45	15	164	0	0	70	14	51	22	0	0	0	0	336
2:00	24	207	0	0	65	8	48	28	0	0	0	0	380
2:15	19	205	0	0	83	8	60	37	0	0	0	0	412
2:30	25	210	0	0	53	9	59	33	0	0	0	0	389
2:45	19	177	0	0	81	3	58	36	0	0	0	0	374
Total Volume:	289	2508	0	0	1078	124	1034	556	0	0	0	0	5589
Approach %	10%	90%	0%	0%	90%	10%	65%	35%	0%	0%	0%	0%	
Peak Hr Begin:	2:00												
PHV	87	799	0	0	282	28	225	134	0	0	0	0	1555
PHF	0.943			0.852			0.925			0.000			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	0	0	3	0	0	0	0	0
11:15	0	0	4	0	4	0	0	0
11:30	0	0	8	1	5	0	0	0
11:45	0	0	5	1	4	0	0	0
12:00	0	0	2	0	2	0	0	0
12:15	0	0	1	2	1	0	0	0
12:30	0	0	10	0	1	0	0	0
12:45	0	0	6	1	6	0	0	0
1:00	0	0	8	1	8	0	0	0
1:15	0	0	1	2	2	0	0	0
1:30	0	0	5	1	3	0	0	0
1:45	0	0	9	1	5	0	0	0
2:00	0	0	2	0	2	0	0	0
2:15	0	0	8	0	5	0	0	0
2:30	0	0	9	1	3	0	0	0
2:45	0	0	1	0	1	0	0	0

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Flower St

East/West 37th St

Day: Wednesday Date: January 14, 2015 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	5	61	48	0
BIKES	14	15	27	22
BUSES	0	64	20	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	58	7.45	275	7.45	291	8.00	0	0.00
PM PK 15 MIN	44	15.15	438	17.45	202	17.30	0	0.00
AM PK HOUR	202	7.45	927	7.45	1034	7.30	0	0.00
PM PK HOUR	147	15.15	1550	17.00	737	16.45	0	0.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	150	150
8-9	0	0	184	184
9-10	0	0	100	100
15-16	0	0	145	145
16-17	0	0	116	116
17-18	0	0	123	123
TOTAL	0	0	818	818

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	529	265	0	794
8-9	586	289	0	875
9-10	511	316	0	827
15-16	802	372	0	1174
16-17	807	554	0	1361
17-18	784	766	0	1550
TOTAL	4019	2562	0	6581

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
944	10	0	34	1
1059	22	0	38	3
927	20	0	25	1
1319	25	0	52	0
1477	43	0	48	0
1673	23	0	49	0
7399	143	0	246	5

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	817	55	872
8-9	0	905	106	1011
9-10	0	566	79	645
15-16	0	606	47	653
16-17	0	589	52	641
17-18	0	645	81	726
TOTAL	0	4128	420	4548

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
872	19	3	0	0
1011	30	1	0	0
645	13	0	0	0
653	40	1	0	0
641	49	1	0	0
726	85	1	0	0
4548	236	7	0	0

Turning Movement Count Report Saturday Midday

Location ID: 16
North/South: Flower Street
East/West: 37th Street

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	0	52	104	0	0	0	16	0	0	8	138	0	318
11:15	0	45	121	0	0	0	12	0	0	4	132	0	314
11:30	0	58	115	0	0	0	15	0	0	7	116	0	311
11:45	0	43	99	0	0	0	9	0	0	11	127	0	289
12:00	0	56	129	0	0	0	21	0	0	8	116	0	330
12:15	0	60	126	0	0	0	20	0	0	7	121	0	334
12:30	0	70	117	0	0	0	19	0	0	17	135	0	358
12:45	0	61	129	0	0	0	20	0	0	11	156	0	377
1:00	0	75	123	0	0	0	25	0	0	12	130	0	365
1:15	0	67	130	0	0	0	23	0	0	11	137	0	368
1:30	0	87	152	0	0	0	20	0	0	6	141	0	406
1:45	0	67	131	0	0	0	19	0	0	11	158	0	386
2:00	0	69	170	0	0	0	20	0	0	9	136	0	404
2:15	0	71	175	0	0	0	24	0	0	19	165	0	454
2:30	0	70	180	0	0	0	20	0	0	12	161	0	443
2:45	0	57	156	0	0	0	26	0	0	9	152	0	400
Total Volume:	0	1008	2157	0	0	0	309	0	0	162	2221	0	5857
Approach %	0%	32%	68%	0%	0%	0%	100%	0%	0%	7%	93%	0%	
Peak Hr Begin:	2:00												
PHV	0	267	681	0	0	0	90	0	0	49	614	0	1701
PHF	0.948			0.000			0.865			0.901			0.000

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	1	1	0	0	1	0	3	1
11:15	0	0	0	0	12	0	2	0
11:30	4	0	0	0	1	1	6	0
11:45	2	0	0	0	2	1	1	1
12:00	0	0	0	0	1	0	0	0
12:15	4	0	0	0	1	1	2	1
12:30	2	0	0	0	2	0	2	0
12:45	1	0	0	0	1	0	0	0
1:00	0	0	0	0	2	0	2	1
1:15	4	0	0	0	5	0	0	1
1:30	5	0	0	0	1	0	1	1
1:45	3	0	0	0	0	0	4	1
2:00	1	0	0	0	0	1	0	0
2:15	4	0	0	0	0	0	3	0
2:30	7	0	0	0	3	1	5	1
2:45	9	0	0	0	8	0	5	0

Turning Movement Count Report AM

Location ID: 17
North/South: I-110 NB Off Ramp / Hope Street
East/West: 37th Street
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	57	0	0	8	99	0	0	46	146	356
7:15	0	0	0	72	0	0	10	136	0	0	61	167	446
7:30	0	0	0	89	0	0	12	151	0	0	80	206	538
7:45	0	0	0	72	0	0	10	135	0	0	93	212	522
8:00	0	0	0	78	0	0	10	128	0	0	75	223	514
8:15	0	0	0	67	0	0	9	101	0	0	99	230	506
8:30	0	0	0	70	0	0	6	106	0	0	79	195	456
8:45	0	0	0	70	0	0	11	92	0	0	75	194	442
9:00	0	0	0	42	0	0	9	98	2	0	84	175	410
9:15	0	0	0	55	0	0	12	89	0	0	59	124	339
9:30	0	0	0	60	0	0	7	85	0	0	60	116	328
9:45	0	0	0	58	0	0	15	79	0	0	82	103	337
Total Volume:	0	0	0	790	0	0	119	1299	2	0	893	2091	5194
Approach %	0%	0%	0%	100%	0%	0%	8%	91%	0%	0%	30%	70%	
Peak Hr Begin:	7:30												
PHV	0	0	0	306	0	0	41	515	0	0	347	871	2080
PHF	0.000			0.860			0.853			0.926			0.000

Turning Movement Count Report PM

Location ID: 17
North/South: I-110 NB Off Ramp / Hope Street
East/West: 37th Street
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	45	0	0	25	103	0	0	74	121	368
15:15	0	0	0	52	0	0	19	92	0	0	68	130	361
15:30	0	0	0	76	1	0	22	140	0	0	77	123	439
15:45	0	0	0	58	0	0	50	166	0	0	79	94	447
16:00	0	0	0	43	0	0	41	158	0	0	54	108	404
16:15	0	0	0	45	0	0	29	142	0	0	92	84	392
16:30	0	0	0	48	0	0	24	120	0	0	92	103	387
16:45	0	0	0	45	0	0	43	164	0	0	61	63	376
17:00	0	0	0	48	0	0	63	160	0	0	104	83	458
17:15	0	0	0	48	0	0	63	197	0	0	80	78	466
17:30	0	0	0	39	0	0	76	224	0	0	70	60	469
17:45	0	0	0	36	0	0	59	155	0	0	88	59	397
18:00	0	0	0	31	0	0	51	206	0	0	59	64	411
18:15	0	0	0	26	0	0	47	154	0	0	69	51	347
18:30	0	0	0	32	0	0	27	184	0	0	52	59	354
18:45	0	0	0	19	0	0	28	142	0	0	38	75	302
Total Volume:	0	0	0	691	1	0	667	2507	0	0	1157	1355	6378
Approach %	0%	0%	0%	100%	0%	0%	21%	79%	0%	0%	46%	54%	
Peak Hr Begin:	17:00												
PHV	0	0	0	171	0	0	261	736	0	0	342	280	1790
PHF	0.000			0.891			0.831			0.832			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	2	0	3	0	0	0	2	0
7:15	0	0	0	1	0	0	3	0
7:30	0	0	0	1	0	3	1	0
7:45	0	0	2	0	1	0	7	0
8:00	2	0	2	0	0	0	1	1
8:15	0	0	1	0	0	0	1	0
8:30	0	0	0	0	0	0	2	0
8:45	0	0	1	0	0	0	1	0
9:00	2	0	3	0	0	0	0	0
9:15	3	0	1	0	0	0	1	0
9:30	0	0	1	0	1	1	2	2
9:45	7	0	5	0	1	0	3	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	3	0	1	0	0	0	3	0
15:15	2	1	1	0	6	0	2	1
15:30	2	0	1	0	6	2	6	2
15:45	1	0	1	0	4	0	2	0
16:00	0	0	1	0	2	0	1	0
16:15	1	0	2	0	3	0	2	0
16:30	2	0	1	0	2	0	0	0
16:45	1	0	1	0	9	1	3	0
17:00	1	0	3	0	11	2	5	0
17:15	1	0	3	0	8	2	3	0
17:30	2	0	1	0	5	1	1	0
17:45	0	0	1	0	2	1	1	0
18:00	3	2	2	0	12	0	10	0
18:15	1	0	0	0	6	0	2	0
18:30	1	1	2	0	4	1	1	0
18:45	0	0	2	1	2	1	5	0

Turning Movement Count Report Saturday Midday

Location ID: 17
North/South: I-110 NB Off Ramp / Hope Street
East/West: 37th Street
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	0	0	0	21	0	0	11	95	0	0	25	51	203
11:15	0	0	0	16	0	0	7	87	0	0	29	55	194
11:30	0	0	0	23	0	0	9	75	0	0	37	49	193
11:45	0	0	0	15	0	0	14	74	0	0	31	39	173
12:00	0	0	0	23	0	0	12	96	0	0	15	56	202
12:15	0	0	0	25	0	0	16	85	0	0	16	58	200
12:30	0	0	0	27	0	0	14	81	0	0	22	53	197
12:45	0	0	0	29	0	0	13	105	0	0	21	81	249
1:00	0	0	0	25	0	0	19	101	0	0	27	65	237
1:15	0	0	0	33	0	0	7	108	0	0	20	55	223
1:30	0	0	0	31	0	0	15	113	0	0	24	54	237
1:45	0	0	0	32	0	0	16	116	0	0	29	53	246
2:00	0	0	0	29	0	0	24	113	0	0	31	41	238
2:15	0	0	0	28	0	0	22	111	0	0	28	72	261
2:30	0	0	0	27	0	0	9	98	0	0	26	61	221
2:45	0	0	0	23	0	0	19	112	0	0	28	62	244
Total Volume:	0	0	0	407	0	0	227	1570	0	0	409	905	3518
Approach %	0%	0%	0%	100%	0%	0%	13%	87%	0%	0%	31%	69%	
Peak Hr Begin:	1:30												
PHV	0	0	0	120	0	0	77	453	0	0	112	220	982
PHF	0.000			0.938			0.967			0.830			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	1	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	1	0
11:30	0	0	0	0	0	0	2	0
11:45	0	0	0	0	0	0	0	0
12:00	0	0	1	0	0	0	0	0
12:15	3	0	2	0	1	0	2	0
12:30	2	0	1	0	0	0	0	0
12:45	1	0	7	0	3	0	6	0
1:00	1	0	0	0	0	0	1	0
1:15	0	0	1	0	0	0	0	0
1:30	0	0	2	0	0	0	1	0
1:45	2	0	1	0	0	0	0	1
2:00	1	0	2	0	0	1	4	0
2:15	4	0	1	0	0	0	2	0
2:30	1	0	1	0	0	0	0	0
2:45	0	0	2	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 18
North/South: I-110 HOV/FastTrak ramps
East/West: 39th St (under I-110)

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	0	16	17	39	0	72	30	54	0	228
7:15	0	0	0	0	26	15	50	0	56	27	73	0	247
7:30	0	0	0	0	29	17	48	0	76	38	78	0	286
7:45	0	0	0	0	25	13	58	0	56	35	84	0	271
8:00	0	0	0	0	41	11	56	0	40	26	77	0	251
8:15	0	0	0	0	35	3	45	0	61	25	79	0	248
8:30	0	0	0	0	27	7	28	0	48	18	61	0	189
8:45	0	0	0	0	24	5	37	0	49	11	54	0	180
9:00	0	0	0	0	22	9	37	0	56	9	38	0	171
9:15	0	0	0	0	20	7	23	0	61	5	28	0	144
9:30	0	0	0	0	24	4	28	0	66	12	20	0	154
9:45	0	0	0	0	24	5	26	0	70	13	18	0	156

Total Volume:	0	0	0	0	313	113	475	0	711	249	664	0	2525
Approach %	0%	0%	0%	0%	73%	27%	40%	0%	60%	27%	73%	0%	

Peak Hr Begin:	7:30												
PHV	0	0	0	0	130	44	207	0	233	124	318	0	1056
PHF	0.000			0.837			0.887			0.929			0.000

Turning Movement Count Report PM

Location ID: 18
North/South: I-110 HOV/FastTrak ramps
East/West: 39th St (under I-110)

Date: 09/16/15
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	0	0	54	25	10	0	36	31	34	0	190
15:15	0	0	0	0	55	36	12	0	23	40	30	0	196
15:30	0	0	0	0	54	59	15	0	43	34	21	0	226
15:45	0	0	0	0	51	25	18	0	35	52	24	0	205
16:00	0	0	0	0	63	47	13	0	42	57	24	0	246
16:15	0	0	0	0	63	60	17	0	20	55	35	0	250
16:30	0	0	0	0	62	66	27	0	32	65	39	0	291
16:45	0	0	0	0	92	74	35	0	35	62	37	0	335
17:00	0	0	0	0	83	68	33	0	37	75	45	0	341
17:15	0	0	0	0	89	82	37	0	56	70	42	0	376
17:30	0	0	0	0	97	93	44	0	40	67	39	0	380
17:45	0	0	0	0	88	89	47	0	55	47	34	0	360
Total Volume:	0	0	0	0	851	724	308	0	454	655	404	0	3396
Approach %	0%	0%	0%	0%	54%	46%	40%	0%	60%	62%	38%	0%	
Peak Hr Begin:	17:00												
PHV	0	0	0	0	357	332	161	0	188	259	160	0	1457
PHF	0.000			0.907			0.855			0.873			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	4	0	0	0	0	0	0	0
7:15	9	1	0	0	0	0	0	0
7:30	4	0	0	0	0	0	0	0
7:45	3	1	0	0	0	0	0	0
8:00	2	0	0	0	0	0	0	0
8:15	0	2	0	0	0	0	0	0
8:30	4	0	0	0	0	0	0	0
8:45	0	2	0	0	0	0	0	0
9:00	2	1	0	0	0	0	0	0
9:15	2	0	0	0	0	0	0	0
9:30	2	1	0	0	0	0	0	0
9:45	2	0	0	0	0	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	0	0	0	0	0	0
15:15	3	0	0	0	0	0	0	0
15:30	1	2	0	0	0	0	0	0
15:45	0	0	0	0	0	0	1	0
16:00	2	1	0	0	0	0	0	0
16:15	6	0	0	0	0	0	0	0
16:30	4	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	2	0	0	0	0	0	0	0
17:15	1	1	0	0	0	0	0	0
17:30	3	1	0	0	0	0	0	0
17:45	7	4	0	0	0	0	0	0

Turning Movement Count Report Saturday Midday

Location ID: 18
North/South: I-110 HOV Ramps
East/West: 39th Street

Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	0	0	0	0	20	6	2	0	27	14	16	0	85
11:15	0	0	0	0	23	5	8	0	33	20	13	0	102
11:30	0	0	0	0	25	5	2	0	13	12	15	0	72
11:45	0	0	0	0	26	4	5	0	20	16	21	0	92
12:00	0	0	0	0	32	8	5	0	28	23	26	0	122
12:15	0	0	0	0	34	10	8	0	35	24	28	0	139
12:30	0	0	0	0	38	13	4	0	18	14	32	0	119
12:45	0	0	0	0	39	16	6	0	32	24	16	0	133
1:00	0	0	0	0	44	11	4	0	28	19	21	0	127
1:15	0	0	0	0	43	13	9	0	25	19	21	0	130
1:30	0	0	0	0	51	13	7	0	29	15	20	0	135
1:45	0	0	0	0	41	13	7	0	27	23	23	0	134
2:00	0	0	0	0	46	11	1	0	28	22	23	0	131
2:15	0	0	0	0	44	20	6	0	26	26	15	0	137
2:30	0	0	0	0	54	17	4	0	31	34	33	0	173
2:45	0	0	0	0	42	15	9	0	22	23	27	0	138
Total Volume:	0	0	0	0	602	180	87	0	422	328	350	0	1969
Approach %	0%	0%	0%	0%	77%	23%	17%	0%	83%	48%	52%	0%	
Peak Hr Begin:	2:00												
PHV	0	0	0	0	186	63	20	0	107	105	98	0	579
PHF	0.000			0.877			0.907			0.757			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	0	0	0	0	1	0	0	0
11:15	0	0	3	0	3	1	0	0
11:30	0	0	3	0	4	0	0	0
11:45	0	0	3	0	3	2	2	0
12:00	0	0	2	0	0	1	0	0
12:15	0	0	0	0	2	0	1	0
12:30	0	0	1	0	2	0	0	0
12:45	0	0	3	0	3	0	1	0
1:00	0	0	0	0	1	0	0	0
1:15	0	0	1	0	2	0	0	0
1:30	0	0	3	0	9	1	0	0
1:45	0	0	2	0	3	0	1	0
2:00	0	0	2	0	3	1	0	0
2:15	0	0	1	0	1	0	0	0
2:30	0	0	2	0	1	0	1	0
2:45	0	0	1	0	1	0	0	0

Turning Movement Count Report AM

Location ID: 19
North/South: I-110 SB Ramps
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	164	6	59	0	176	45	0	0	0	70	408	0	928
7:15	123	11	87	0	183	44	0	0	0	69	435	0	952
7:30	142	5	101	0	182	38	0	0	0	60	412	0	940
7:45	156	5	88	0	185	35	0	0	0	55	411	0	935
8:00	117	0	63	0	162	31	0	0	0	75	445	0	893
8:15	130	0	69	0	186	37	0	0	0	94	432	0	948
8:30	111	0	48	0	157	50	0	0	0	97	418	0	881
8:45	168	2	30	0	139	38	0	0	0	80	435	0	892
9:00	143	1	46	0	197	38	0	0	0	86	361	0	872
9:15	128	1	38	0	157	64	0	0	0	72	350	0	810
9:30	195	2	25	0	180	37	0	0	0	77	246	0	762
9:45	120	1	30	0	188	54	0	0	0	79	245	0	717
Total Volume:	1697	34	684	0	2092	511	0	0	0	914	4598	0	10530
Approach %	70%	1%	28%	0%	80%	20%	0%	0%	0%	17%	83%	0%	
Peak Hr Begin:	7:00												
PHV	585	27	335	0	726	162	0	0	0	254	1666	0	3755
PHF	0.951			0.978			0.000			0.952			0.000

Turning Movement Count Report PM

Location ID: 19
North/South: I-110 SB Ramps
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	104	8	66	0	232	66	0	0	0	91	260	0	827
15:15	115	1	73	0	241	67	0	0	0	103	259	0	859
15:30	116	7	63	0	233	64	0	0	0	97	279	0	859
15:45	134	13	65	0	259	60	0	0	0	119	266	0	916
16:00	98	12	61	0	296	68	0	0	0	79	257	0	871
16:15	117	15	68	0	243	63	0	0	0	98	239	0	843
16:30	121	21	80	0	255	87	0	0	0	71	253	0	888
16:45	125	11	77	0	292	78	0	0	0	80	258	0	921
17:00	124	15	83	0	271	103	0	0	0	74	221	0	891
17:15	128	13	65	0	275	94	0	0	0	85	252	0	912
17:30	134	17	62	0	293	89	0	0	0	79	257	0	931
17:45	168	15	68	0	295	111	0	0	0	65	232	0	954
18:00	119	12	56	0	272	72	0	0	0	75	201	0	807
18:15	113	9	82	0	325	83	0	0	0	88	226	0	926
18:30	117	9	63	0	316	74	0	0	0	76	228	0	883
18:45	104	6	75	0	294	69	0	0	0	85	245	0	878
Total Volume:	1937	184	1107	0	4392	1248	0	0	0	1365	3933	0	14166
Approach %	60%	6%	34%	0%	78%	22%	0%	0%	0%	26%	74%	0%	
Peak Hr Begin:	17:00												
PHV	554	60	278	0	1134	397	0	0	0	303	962	0	3688
PHF	0.888			0.943			0.000			0.938			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	5	1	0	0	13	6	0	0
7:15	3	3	0	0	14	3	0	0
7:30	17	3	0	0	29	4	0	0
7:45	10	0	0	0	17	2	0	0
8:00	7	0	0	0	15	5	0	0
8:15	5	3	0	0	11	3	0	0
8:30	3	1	0	0	8	0	0	0
8:45	3	2	0	0	15	2	0	0
9:00	1	0	0	0	10	4	0	0
9:15	2	0	0	0	7	1	0	0
9:30	3	4	0	0	4	0	0	0
9:45	4	1	0	0	6	1	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	4	3	0	0	15	2	0	0
15:15	13	1	0	0	14	2	0	0
15:30	11	4	0	0	14	2	0	2
15:45	3	2	0	0	16	4	0	1
16:00	2	2	0	0	8	2	0	0
16:15	6	1	0	0	10	3	0	0
16:30	8	0	0	0	15	3	0	0
16:45	6	2	0	0	8	2	0	1
17:00	14	1	0	0	11	1	0	1
17:15	5	4	0	0	9	3	0	0
17:30	8	3	0	0	6	4	0	0
17:45	4	1	0	0	17	1	0	0
18:00	5	7	0	0	11	11	0	0
18:15	1	6	0	0	15	2	0	0
18:30	4	1	0	0	18	4	0	0
18:45	3	6	0	0	11	8	1	0

Turning Movement Count Report Saturday Midday

Location ID: 19
North/South: I-110 SB Ramps
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	93	1	42	0	177	50	0	0	0	121	216	0	700
11:15	123	2	46	0	194	57	0	0	0	102	216	0	740
11:30	128	5	46	0	212	47	0	0	0	111	239	0	788
11:45	120	7	50	0	217	47	0	0	0	129	244	0	814
12:00	116	2	52	0	220	57	0	0	0	128	220	0	795
12:15	124	3	58	0	216	57	0	0	0	118	262	0	838
12:30	117	8	67	0	248	49	0	0	0	119	256	0	864
12:45	102	10	74	0	262	47	0	0	0	116	265	0	876
1:00	130	6	71	0	258	52	0	0	0	108	260	0	885
1:15	94	8	45	0	258	55	0	0	0	120	258	0	838
1:30	93	15	53	0	252	47	0	0	0	117	261	0	838
1:45	90	4	36	0	277	61	0	0	0	131	240	0	839
2:00	98	15	65	0	265	53	0	0	0	105	271	0	872
2:15	98	12	60	0	279	54	0	0	0	131	256	0	890
2:30	117	7	61	0	238	44	0	0	0	147	258	0	872
2:45	99	10	60	0	278	58	0	0	0	113	227	0	845

Total Volume:	1742	115	886	0	3851	835	0	0	0	1916	3949	0	13294
Approach %	64%	4%	32%	0%	82%	18%	0%	0%	0%	33%	67%	0%	

Peak Hr Begin:	2:00												
PHV	412	44	246	0	1060	209	0	0	0	496	1012	0	3479
PHF	0.949			0.944			0.000			0.931			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	5	0	0	0	7	4	0	0
11:15	6	2	0	0	6	2	0	0
11:30	3	2	0	0	19	1	0	0
11:45	5	1	0	0	10	5	0	0
12:00	4	2	0	0	7	0	0	0
12:15	4	2	0	0	6	2	0	0
12:30	7	2	0	0	4	2	0	0
12:45	5	0	0	0	11	5	0	0
1:00	5	3	0	0	12	4	0	0
1:15	7	2	0	0	14	6	0	0
1:30	4	6	0	0	6	2	0	0
1:45	6	7	0	0	14	0	0	0
2:00	3	2	0	0	10	4	0	0
2:15	8	2	0	0	12	1	0	0
2:30	7	0	0	0	14	2	0	0
2:45	12	0	0	0	12	3	0	0

Turning Movement Count Report AM

Location ID: 20
North/South: I-110 NB Ramps / Hill Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	24	2	10	40	178	41	10	50	19	146	222	94	836
7:15	23	0	5	56	177	29	10	63	35	190	240	86	914
7:30	17	1	6	55	165	38	15	73	16	145	271	89	891
7:45	25	2	8	65	168	31	26	95	30	146	273	71	940
8:00	22	0	6	52	156	24	21	75	20	148	266	91	881
8:15	25	1	4	44	172	25	15	55	18	149	259	90	857
8:30	22	1	6	43	145	23	14	44	28	183	196	106	811
8:45	31	0	11	34	159	23	17	42	18	150	207	93	785
9:00	24	1	5	31	150	15	19	29	30	141	198	85	728
9:15	30	1	10	27	178	19	14	36	37	127	187	70	736
9:30	32	2	3	24	134	22	21	34	57	106	131	56	622
9:45	25	1	8	9	152	18	24	24	46	83	146	38	574
Total Volume:	300	12	82	480	1934	308	206	620	354	1714	2596	969	9575
Approach %	76%	3%	21%	18%	71%	11%	17%	53%	30%	32%	49%	18%	
Peak Hr Begin:	7:15												
PHV	87	3	25	228	666	122	72	306	101	629	1050	337	3626
PHF	0.821			0.962			0.793			0.977			0.000

Turning Movement Count Report PM

Location ID: 20
North/South: I-110 NB Ramps / Hill Street
East/West: Martin Luther King Jr. Boulevard
Date: 08/30/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	57	1	20	18	160	19	59	35	73	59	241	19	761
15:15	65	2	13	20	192	17	48	28	64	78	236	19	782
15:30	55	2	21	14	167	19	63	58	73	73	242	21	808
15:45	72	3	22	17	206	13	61	44	76	61	247	24	846
16:00	80	0	18	17	186	14	60	40	62	54	241	22	794
16:15	49	1	14	17	178	9	60	38	80	43	252	23	764
16:30	83	2	29	16	173	10	71	53	62	37	257	29	822
16:45	93	0	22	21	217	17	59	51	67	33	277	17	874
17:00	90	2	19	13	197	10	88	52	78	32	241	27	849
17:15	94	2	23	17	223	8	76	50	66	28	268	25	880
17:30	98	2	21	11	214	6	80	52	89	31	265	19	888
17:45	96	1	20	14	220	10	86	55	61	32	253	23	871
18:00	82	1	27	3	186	13	89	54	85	19	217	24	800
18:15	88	0	21	10	240	12	74	43	60	27	256	16	847
18:30	65	1	16	12	234	6	101	54	88	26	247	24	874
18:45	42	0	6	8	231	9	78	41	96	22	273	28	834
Total Volume:	1209	20	312	228	3224	192	1153	748	1180	655	4013	360	13294
Approach %	78%	1%	20%	6%	88%	5%	37%	24%	38%	13%	80%	7%	
Peak Hr Begin:	16:45												
PHV	375	6	85	62	851	41	303	205	300	124	1051	88	3491
PHF	0.963			0.935			0.914			0.966			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	6	0	3	2	5	6	0	0
7:15	9	1	4	1	4	3	0	0
7:30	12	1	4	0	8	4	0	0
7:45	11	0	5	0	11	2	0	0
8:00	12	2	3	1	1	4	0	0
8:15	10	0	0	0	5	5	0	0
8:30	5	0	4	0	4	0	0	0
8:45	6	1	7	1	8	2	0	0
9:00	3	0	6	0	5	1	0	0
9:15	9	0	6	0	3	1	0	0
9:30	5	1	2	1	3	2	0	0
9:45	5	0	1	0	6	1	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	4	1	0	0	7	2	0	0
15:15	9	2	2	1	9	1	0	0
15:30	11	2	6	1	5	1	0	0
15:45	3	0	0	1	9	4	0	0
16:00	7	1	2	0	3	4	0	0
16:15	14	0	1	0	8	4	0	0
16:30	7	0	1	0	6	1	0	0
16:45	10	0	2	0	7	3	0	0
17:00	16	1	2	1	2	3	0	0
17:15	11	0	1	0	2	1	0	0
17:30	4	1	1	0	3	4	0	0
17:45	22	0	15	1	5	1	0	0
18:00	13	0	2	1	3	5	0	0
18:15	12	0	4	0	4	3	0	0
18:30	8	0	2	0	6	1	0	0
18:45	7	0	2	1	5	4	0	0

Turning Movement Count Report Saturday Midday

Location ID: 20
North/South: I-110 NB Ramps / Hill Street
East/West: Martin Luther King Jr. Boulevard
Date: 07/23/16
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
11:00	0	2	5	12	136	32	33	21	86	88	160	10	585
11:15	0	0	7	8	164	27	26	21	82	79	175	10	599
11:30	0	0	3	5	157	25	33	28	108	96	168	17	640
11:45	0	0	8	12	177	26	24	22	84	83	193	12	641
12:00	1	1	7	11	184	22	41	32	86	78	187	18	668
12:15	0	2	9	9	198	23	21	15	71	89	199	23	659
12:30	0	4	7	10	221	24	41	23	70	92	231	8	731
12:45	2	1	9	11	209	26	34	10	99	99	218	12	730
1:00	0	0	3	9	224	25	36	23	94	96	220	22	752
1:15	2	1	5	12	213	17	34	30	97	79	204	15	709
1:30	4	2	9	15	214	20	43	34	90	84	216	21	752
1:45	0	0	6	15	212	22	40	23	111	75	188	17	709
2:00	0	3	6	3	212	26	37	16	105	104	210	21	743
2:15	1	1	12	10	229	26	52	34	93	80	223	17	778
2:30	2	0	8	13	204	36	52	24	86	94	199	18	736
2:45	3	3	16	19	199	17	39	33	110	72	206	16	733

Total Volume:	15	20	120	174	3153	394	586	389	1472	1388	3197	257	11165
Approach %	10%	13%	77%	5%	85%	11%	24%	16%	60%	29%	66%	5%	

Peak Hr Begin:	2:00												
PHV	6	7	42	45	844	105	180	107	394	350	838	72	2990
PHF	0.625			0.938			0.935			0.940			0.000

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
11:00	6	0	0	0	7	3	0	0
11:15	8	0	0	0	2	4	0	0
11:30	7	1	4	0	11	1	0	0
11:45	12	0	1	0	13	3	0	0
12:00	7	0	0	0	8	0	0	0
12:15	7	0	0	0	4	2	1	0
12:30	7	0	0	0	6	2	0	0
12:45	14	0	3	0	8	2	0	0
1:00	10	0	4	0	12	6	0	0
1:15	13	0	2	0	17	4	0	0
1:30	6	0	2	0	6	1	0	0
1:45	7	0	2	1	10	1	0	0
2:00	2	0	0	0	9	4	0	0
2:15	1	0	0	0	17	2	1	0
2:30	3	0	0	0	8	3	0	0
2:45	13	0	1	0	13	2	0	0

Appendix C

Level of Service Worksheets

Existing Conditions (Year 2016)

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
1	North-South Street:	Normandie Ave	East-West Street:	Exposition Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	66	1	**66**	66	1	66
	Left-Through		0			0	
	Through	872	1	452	939	1	**492**
	Through-Right		1			1	
	Right	32	0	32	45	0	45
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	75	1	75	143	1	**143**
	Left-Through		0			0	
	Through	978	1	**501**	927	1	489
	Through-Right		1			1	
	Right	23	0	23	50	0	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	619	1	377	488	1	**275**
	Through-Right		1			1	
	Right	135	0	135	62	0	62
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	126	1	126	74	1	**74**
	Left-Through		0			0	
	Through	807	1	**475**	364	1	220
	Through-Right		1			1	
	Right	142	0	142	76	0	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	567		*North-South:*	635
			East-West:	561		*East-West:*	349
			SUM:	1128		*SUM:*	984
	VOLUME/CAPACITY *(V/C)* RATIO:			0.820			0.716
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.720**			**0.616**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
3	North-South Street:	Normandie Ave	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	87	1	**87**	108	1	108
	Left-Through		0			0	
	Through	733	1	405	762	1	**439**
	Through-Right		1			1	
	Right	77	0	77	115	0	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	93	1	93	83	1	**83**
	Left-Through		0			0	
	Through	918	1	**484**	672	1	394
	Through-Right		1			1	
	Right	49	0	49	115	0	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	107	1	107	121	1	121
	Left-Through		0			0	
	Through	1135	2	**420**	1071	2	**394**
	Through-Right		1			1	
	Right	125	0	125	112	0	112
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	139	1	**139**	98	1	**98**
	Left-Through		0			0	
	Through	1293	3	431	1111	3	370
	Through-Right		0			0	
	Right	129	1	83	175	1	134
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	571		*North-South:*	522
			East-West:	559		*East-West:*	492
			SUM:	1130		*SUM:*	1014
	VOLUME/CAPACITY *(V/C)* RATIO:			0.822			0.737
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.722**			**0.637**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
2	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** Jefferson Blvd
Scenario: Existing Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	120	1	120	76	1	**76**
	Left-Through		0			0	
	Through	987	2	**412**	725	2	286
	Through-Right		1			1	
	Right	249	0	249	133	0	133
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	157	1	**157**	91	1	91
	Left-Through		0			0	
	Through	949	2	359	833	2	**319**
	Through-Right		1			1	
	Right	128	0	128	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	115	1	115	154	1	154
	Left-Through		0			0	
	Through	701	1	**396**	417	1	**268**
	Through-Right		1			1	
	Right	90	0	90	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	250	1	**250**	197	1	**197**
	Left-Through		0			0	
	Through	823	2	412	373	2	187
	Through-Right		0			0	
	Right	135	1	0	80	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	569		*North-South:*	395
			East-West:	646		*East-West:*	465
			SUM:	1215		*SUM:*	860
VOLUME/CAPACITY *(V/C)* RATIO:				0.884			0.625
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.784**			**0.525**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
4	North-South Street:	Vermont Ave	East-West Street:	Exposition Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	85	1	**85**	53	1	53
	Left-Through		0			0	
	Through	655	1	360	726	1	**395**
	Through-Right		1			1	
	Right	65	0	65	64	0	64
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	156	1	156	150	1	**150**
	Left-Through		0			0	
	Through	1077	2	**539**	951	2	476
	Through-Right		0			0	
	Right	47	1	0	56	1	7
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	133	1	**133**	99	1	99
	Left-Through		0			0	
	Through	720	1	390	554	1	**310**
	Through-Right		1			1	
	Right	60	0	60	66	0	66
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	106	1	106	120	1	**120**
	Left-Through		0			0	
	Through	835	2	**418**	408	2	204
	Through-Right		0			0	
	Right	191	1	35	138	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	624		*North-South:*	545
			East-West:	551		*East-West:*	430
			SUM:	1175		*SUM:*	975
	VOLUME/CAPACITY *(V/C)* RATIO:			0.855			0.709
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.755**			**0.609**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
5	North-South Street:	Vermont Ave	East-West Street:	39th St
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	1	**32**	33	1	**33**
	Left-Through		0			0	
	Through	706	1	354	770	1	396
	Through-Right		1			1	
	Right	1	0	1	21	0	21
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	10	1	10	61	1	61
	Left-Through		0			0	
	Through	1164	1	**619**	917	1	**495**
	Through-Right		1			1	
	Right	74	0	74	72	0	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	45	0	**45**	48	0	**48**
	Left-Through		0			0	
	Through	4	0	99	17	0	116
	Through-Right		0			0	
	Right	50	0	0	51	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
WESTBOUND	Left	12	0	12	11	0	11
	Left-Through		0			0	
	Through	43	0	**87**	20	0	**113**
	Through-Right		0			0	
	Right	32	0	0	82	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	651		*North-South:*	528
			East-West:	132		*East-West:*	161
			SUM:	783		*SUM:*	689
VOLUME/CAPACITY *(V/C)* RATIO:				0.522			0.459
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.422**			**0.359**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	105	1	**105**	122	1	**122**
	Left-Through		0			0	
	Through	511	1	286	410	1	243
	Through-Right		1			1	
	Right	61	0	61	76	0	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	244	1	244	235	1	235
	Left-Through		0			0	
	Through	892	1	**486**	656	1	**375**
	Through-Right		1			1	
	Right	79	0	79	93	0	93
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	75	1	**75**	108	1	**108**
	Left-Through		0			0	
	Through	1220	2	439	963	2	356
	Through-Right		1			1	
	Right	96	0	96	106	0	106
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	97	1	97	100	1	100
	Left-Through		0			0	
	Through	1425	2	**530**	1193	2	**490**
	Through-Right		1			1	
	Right	165	0	165	277	0	277
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	591		*North-South:*	497
			East-West:	605		*East-West:*	598
			SUM:	1196		*SUM:*	1095
VOLUME/CAPACITY *(V/C)* RATIO:				0.870			0.796
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.770**			**0.696**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
7	North-South Street:	Bill Robertson Ln	East-West Street:	Exposition Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	PM Volume	PM No. of Lanes	PM Lane Volume	MD Volume	MD No. of Lanes	MD Lane Volume
NORTHBOUND	Left	104	1	104	82	1	82
	Left-Through		0			0	
	Through	0	0	**111**	0	0	**169**
	Through-Right		1			1	
	Right	111	0	0	169	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	856	1	478	633	1	**395**
	Through-Right		1			1	
	Right	99	0	99	156	0	156
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	36	1	36	120	1	**120**
	Left-Through		0			0	
	Through	1030	1	**515**	589	1	295
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	111		*North-South:*	169
			East-West:	515		*East-West:*	515
			SUM:	626		*SUM:*	684
VOLUME/CAPACITY *(V/C)* RATIO:				0.439			0.480
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.339**			**0.380**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Bill Robertson Ln **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	17	0	**17**	12	0	**12**
	Left-Through		0			0	
	Through	12	0	46	11	0	55
	Through-Right		0			0	
	Right	17	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	88	0	88	156	0	156
	Left-Through		0			0	
	Through	43	0	**195**	19	0	**265**
	Through-Right		0			0	
	Right	64	0	0	90	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	57	1	57	50	1	50
	Left-Through		0			0	
	Through	1454	2	**727**	1226	2	**613**
	Through-Right		0			0	
	Right	51	1	51	27	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	78	1	**78**	34	1	**34**
	Left-Through		0			0	
	Through	1621	2	575	1435	2	529
	Through-Right		1			1	
	Right	104	0	104	152	0	152
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	212		*North-South:*	277
			East-West:	805		*East-West:*	647
			SUM:	1017		*SUM:*	924
VOLUME/CAPACITY *(V/C)* RATIO:				0.678			0.616
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.578**			**0.516**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
9	North-South Street:	Hoover St	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0 / EB -- 0	SB -- / WB --	0 / 0	NB -- 0 / EB -- 0	SB -- / WB --	0 / 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	229	1	**229**	233	1	**233**
	Left-Through		0			0	
	Through	6	1	6	8	1	8
	Through-Right		1			1	
	Right	87	0	10	149	0	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	21	1	21	76	1	76
	Left-Through		0			0	
	Through	35	1	**33**	17	1	17
	Through-Right		1			1	
	Right	31	0	31	31	0	**25**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	8	1	8	13	1	13
	Left-Through		0			0	
	Through	1163	2	**524**	1198	2	**451**
	Through-Right		1			1	
	Right	410	0	410	155	0	155
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	154	1	**154**	146	1	**146**
	Left-Through		0			0	
	Through	1541	2	527	1355	2	468
	Through-Right		1			1	
	Right	41	0	41	49	0	49
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	262		*North-South:*	258
			East-West:	678		*East-West:*	597
			SUM:	940		*SUM:*	855
VOLUME/CAPACITY *(V/C)* RATIO:				0.627			0.570
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.527**			**0.470**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
10	North-South Street:	Figueroa St	East-West Street:	Jefferson Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 3	WB --	0	EB -- 3	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	235	1	**235**	141	1	**141**
	Left-Through		0			0	
	Through	1143	3	381	855	3	285
	Through-Right		0			0	
	Right	97	1	45	61	1	19
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	111	1	111	109	1	109
	Left-Through		0			0	
	Through	857	2	**324**	678	2	**267**
	Through-Right		1			1	
	Right	115	0	115	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	258	2	**142**	133	2	**73**
	Left-Through		0			0	
	Through	876	3	292	400	3	133
	Through-Right		0			0	
	Right	449	1	214	227	1	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	104	1	104	85	1	85
	Left-Through		0			0	
	Through	773	2	**387**	370	2	**185**
	Through-Right		0			0	
	Right	189	1	134	172	1	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	559		*North-South:*	408
			East-West:	529		*East-West:*	258
			SUM:	1088		*SUM:*	666
	VOLUME/CAPACITY *(V/C)* RATIO:			0.791			0.484
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.691**			**0.384**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
11	North-South Street:	Figueroa St	East-West Street:	Exposition Blvd / 37th St
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	3	NB -- 0	SB --	3
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	226	1	**226**	162	1	**162**
	Left-Through		0			0	
	Through	854	3	285	652	3	217
	Through-Right		0			0	
	Right	31	1	16	46	1	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	131	1	131	141	1	141
	Left-Through		0			0	
	Through	883	2	**442**	776	2	**388**
	Through-Right		0			0	
	Right	253	1	78	162	1	87
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	319	2	**175**	137	2	**75**
	Left-Through		0			0	
	Through	536	3	179	421	3	140
	Through-Right		0			0	
	Right	333	1	220	237	1	156
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	30	1	30	57	1	57
	Left-Through		0			0	
	Through	657	2	**329**	423	2	**212**
	Through-Right		0			0	
	Right	319	1	188	142	1	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	668		*North-South:*	550
			East-West:	504		*East-West:*	287
			SUM:	1172		*SUM:*	837
	VOLUME/CAPACITY *(V/C)* RATIO:			0.852			0.609
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.752**			**0.509**
	LEVEL OF SERVICE (LOS):			**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
12	North-South Street:	Figueroa St	East-West Street:	Flower St
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0		NB -- 3	SB --	0
	EB -- 0	WB --	0		EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	837	2	**419**	813	2	**407**
	Through-Right		0			0	
	Right	66	1	0	93	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	68	1	**68**	47	1	**47**
	Left-Through		0			0	
	Through	1193	3	398	1059	3	353
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	537	2	**295**	284	2	**156**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	52	1	18	53	1	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	487		*North-South:*	454
			East-West:	295		*East-West:*	156
			SUM:	782		*SUM:*	610
VOLUME/CAPACITY *(V/C)* RATIO:				0.521			0.407
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.421**			**0.307**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 13

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Figueroa St **East-West Street:** 39th St / Coliseum
Scenario: Existing Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --		0	NB -- 0	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	38	2	**21**	97	2	**53**
	Left-Through		0			0	
	Through	664	2	263	653	2	252
	Through-Right		1			1	
	Right	124	0	124	102	0	102
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	211	2	116	85	2	47
	Left-Through		0			0	
	Through	1447	2	**484**	1011	2	**346**
	Through-Right		1			1	
	Right	4	0	4	26	0	26
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**43**	109	1	**60**
	Left-Through		1			1	
	Through	32	0	40	28	0	58
	Through-Right		1			1	
	Right	8	0	8	30	0	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	239	1	131	146	1	80
	Left-Through		1			1	
	Through	21	0	**205**	28	0	**147**
	Through-Right		1			1	
	Right	184	0	184	119	0	119
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	505		*North-South:*	399
			East-West:	248		*East-West:*	207
			SUM:	753		*SUM:*	606
VOLUME/CAPACITY *(V/C)* RATIO:				0.548			0.441
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.448**			**0.341**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
14	North-South Street:	Figueroa St	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	78	1	**78**	107	1	**107**
	Left-Through		0			0	
	Through	513	3	171	442	3	147
	Through-Right		0			0	
	Right	119	1	0	147	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	206	1	206	224	1	224
	Left-Through		0			0	
	Through	1206	2	**510**	697	2	**344**
	Through-Right		1			1	
	Right	323	0	323	335	0	335
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	208	1	**208**	237	1	**237**
	Left-Through		0			0	
	Through	964	2	366	1141	2	418
	Through-Right		1			1	
	Right	135	0	135	112	0	112
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	258	1	258	192	1	192
	Left-Through		0			0	
	Through	1282	2	**453**	1120	2	**417**
	Through-Right		1			1	
	Right	77	0	77	132	0	132
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	588		*North-South:*	451
			East-West:	661		*East-West:*	654
			SUM:	1249		*SUM:*	1105
	VOLUME/CAPACITY *(V/C)* RATIO:			0.908			0.804
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.808**			**0.704**
	LEVEL OF SERVICE (LOS):			**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
15	North-South Street:	Flower St	East-West Street:	Exposition / I-110 SB Off-ramp
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	1	0
	Left-Through		1			1	
	Through	0	1	**0**	0	1	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1235	4	**309**	799	4	**200**
	Through-Right		0			0	
	Right	205	1	205	87	1	87
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	63	0	63	28	0	28
	Left-Through		1			1	
	Through	541	1	**302**	282	1	**155**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	309		*North-South:*	200
			East-West:	302		*East-West:*	155
			SUM:	611		*SUM:*	355
	VOLUME/CAPACITY *(V/C)* RATIO:			0.407			0.237
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.307**			**0.137**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
16	North-South Street:	Flower St	East-West Street:	37th St / I-110 SB On-ramp
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	123	1	**123**	90	1	**90**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	784	2	**431**	681	2	**375**
	Left-Through		0			0	
	Through	766	2	383	267	2	134
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	645	4	**145**	614	4	**133**
	Through-Right		1			1	
	Right	81	0	81	49	0	49
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	554		*North-South:*	465
			East-West:	145		*East-West:*	133
			SUM:	699		*SUM:*	598
	VOLUME/CAPACITY *(V/C)* RATIO:			0.491			0.420
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.391**			**0.320**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
17	North-South Street:	Hope / I-110 NB Off-ram	East-West Street:	37th St
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	PM Volume	PM No. of Lanes	PM Lane Volume	MD Volume	MD No. of Lanes	MD Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	736	2	**332**	453	2	**177**
	Through-Right		1			1	
	Right	261	0	261	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	280	2	**154**	220	2	**121**
	Left-Through		0			0	
	Through	342	2	171	112	2	56
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	171	1	**171**	120	1	**120**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	332		*North-South:*	177
			East-West:	325		*East-West:*	241
			SUM:	657		*SUM:*	418
VOLUME/CAPACITY *(V/C)* RATIO:				0.461			0.293
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.361**			**0.193**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
18	North-South Street:	I-110 HOV Ramps	East-West Street:	39th St
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	188	0	188	107	0	107
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	161	0	**349**	20	0	**127**
	Left-Through-Right		0			0	
	Left-Right		1			1	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	160	2	80	98	2	49
	Through-Right		0			0	
	Right	259	1	**259**	105	1	**105**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	332	1	**332**	63	1	**63**
	Left-Through		0			0	
	Through	357	2	179	186	2	93
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	349		*North-South:*	127
			East-West:	591		*East-West:*	168
			SUM:	940		*SUM:*	295
	VOLUME/CAPACITY *(V/C)* RATIO:			0.627			0.197
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.527**			**0.098**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 19

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: I-110 SB Ramps East-West Street: Martin Luther King Jr. Blvd
Scenario: Existing Conditions
Count Date: Analyst: GTC Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	278	1	278	246	1	234
	Left-Through		0			0	
	Through	60	0	**307**	44	0	**234**
	Through-Right		0			0	
	Right	554	1	0	412	1	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	962	2	**422**	1012	2	**503**
	Through-Right		1			1	
	Right	303	0	303	496	0	496
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	397	1	**397**	209	1	**209**
	Left-Through		0			0	
	Through	1134	3	378	1060	3	353
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	307		*North-South:*	234
			East-West:	819		*East-West:*	712
			SUM:	1126		*SUM:*	946
VOLUME/CAPACITY *(V/C)* RATIO:				0.751			0.631
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.651**			**0.531**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
20	North-South Street:	Hill / I-110 NB Ramps	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing Conditions		
	Count Date:		Analyst: GTC	Date:

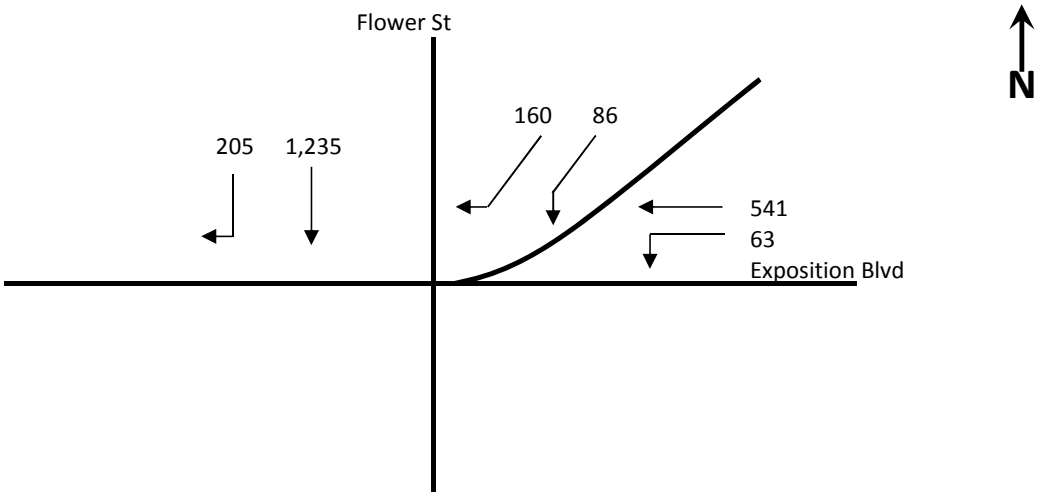
	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0 / EB -- 0	SB -- / WB --	0 / 0	NB -- 0 / EB -- 0	SB -- / WB --	0 / 0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	300	1	300	394	1	**341**
	Left-Through		0			0	
	Through	205	0	**508**	107	0	341
	Through-Right		0			0	
	Right	303	0	0	180	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	85	1	85	42	1	**42**
	Left-Through		0			0	
	Through	6	1	6	7	1	7
	Through-Right		0			0	
	Right	375	1	**331**	6	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	88	1	88	72	1	72
	Left-Through		0			0	
	Through	1051	2	**392**	838	2	**396**
	Through-Right		1			1	
	Right	124	0	124	350	0	350
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	41	1	**41**	105	1	**105**
	Left-Through		0			0	
	Through	851	2	304	844	2	422
	Through-Right		1			0	
	Right	62	0	62	45	1	24
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	839		*North-South:*	383
			East-West:	433		*East-West:*	501
			SUM:	1272		*SUM:*	884
VOLUME/CAPACITY *(V/C)* RATIO:				0.925			0.643
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.825**			**0.543**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Existing Conditions - PM Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{1,235}{4} = 309$ or

Southbound Rights: 205

Critical Volume #1 (CV1): **309**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{160 + 86}{3} = \frac{246}{3} = 82$$

Critical Volume #2 (CV2): **82**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{541 + 63}{2} = \frac{604}{2} = 302$$

Critical Volume #3 (CV3): **302**

Critical Volume: 309 + 82 + 302 = **693**

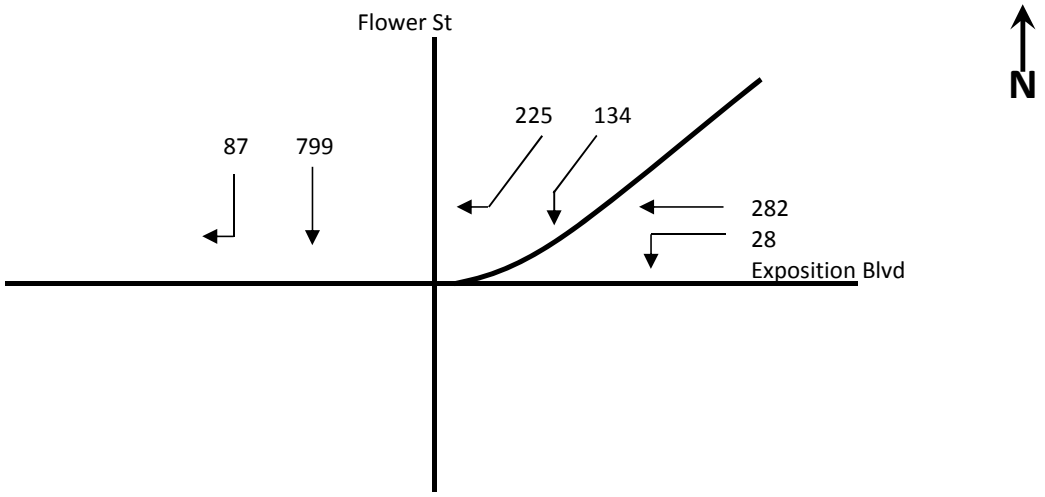
Intersection V/C: $\frac{693}{1425} =$ **0.486**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.386** **Intersection LOS:** **A**

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Existing Conditions - MD Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{799}{4} = 200$ or

Southbound Rights: 87

Critical Volume #1 (CV1): **200**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{225 + 134}{3} = \frac{359}{3} = 120$$

Critical Volume #2 (CV2): **120**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{282 + 28}{2} = \frac{310}{2} = 155$$

Critical Volume #3 (CV3): **155**

Critical Volume: 200 + 120 + 155 = **475**

Intersection V/C: $\frac{475}{1425} =$ **0.333**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.233** **Intersection LOS:** **A**

Existing with Project Conditions (Year 2016)

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
1	North-South Street:	Normandie Ave	East-West Street:	Exposition Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	66	1	**66**	66	1	66
	Left-Through		0			0	
	Through	872	1	452	939	1	**492**
	Through-Right		1			1	
	Right	32	0	32	45	0	45
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	79	1	79	151	1	**151**
	Left-Through		0			0	
	Through	978	1	**501**	927	1	489
	Through-Right		1			1	
	Right	23	0	23	50	0	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	623	1	379	496	1	**279**
	Through-Right		1			1	
	Right	135	0	135	62	0	62
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	126	1	126	74	1	**74**
	Left-Through		0			0	
	Through	815	1	**483**	376	1	232
	Through-Right		1			1	
	Right	150	0	150	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	567		*North-South:*	643
			East-West:	569		*East-West:*	353
			SUM:	1136		*SUM:*	996
	VOLUME/CAPACITY *(V/C)* RATIO:			0.826			0.724
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.726**			**0.624**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Normandie Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --		0	NB -- 0	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	87	1	**87**	108	1	108
	Left-Through		0			0	
	Through	733	1	405	762	1	**439**
	Through-Right		1			1	
	Right	77	0	77	115	0	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	93	1	93	83	1	**83**
	Left-Through		0			0	
	Through	918	1	**484**	672	1	394
	Through-Right		1			1	
	Right	49	0	49	115	0	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	107	1	107	121	1	121
	Left-Through		0			0	
	Through	1139	2	**421**	1079	2	**397**
	Through-Right		1			1	
	Right	125	0	125	112	0	112
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	139	1	**139**	98	1	**98**
	Left-Through		0			0	
	Through	1301	3	434	1123	3	374
	Through-Right		0			0	
	Right	129	1	83	175	1	134
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	571		*North-South:*	522
			East-West:	560		*East-West:*	495
			SUM:	1131		*SUM:*	1017
VOLUME/CAPACITY *(V/C)* RATIO:				0.823			0.740
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.723**			**0.640**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
2	North-South Street:	Vermont Ave	East-West Street:	Jefferson Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	120	1	120	76	1	**76**
	Left-Through		0			0	
	Through	1003	2	**417**	750	2	294
	Through-Right		1			1	
	Right	249	0	249	133	0	133
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	157	1	**157**	91	1	91
	Left-Through		0			0	
	Through	957	2	362	849	2	**324**
	Through-Right		1			1	
	Right	128	0	128	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	115	1	115	154	1	154
	Left-Through		0			0	
	Through	701	1	**396**	417	1	**268**
	Through-Right		1			1	
	Right	90	0	90	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	250	1	**250**	197	1	**197**
	Left-Through		0			0	
	Through	823	2	412	373	2	187
	Through-Right		0			0	
	Right	135	1	0	80	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	574		*North-South:*	400
			East-West:	646		*East-West:*	465
			SUM:	1220		*SUM:*	865
	VOLUME/CAPACITY *(V/C)* RATIO:			0.887			0.629
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.787**			**0.529**
	LEVEL OF SERVICE (LOS):			**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
4	North-South Street:	Vermont Ave	East-West Street:	Exposition Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	69	1	**69**	12	1	12
	Left-Through		0			0	
	Through	639	1	352	685	1	**375**
	Through-Right		1			1	
	Right	65	0	65	64	0	64
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	169	1	169	197	1	**197**
	Left-Through		0			0	
	Through	1072	2	**536**	920	2	460
	Through-Right		0			0	
	Right	47	1	0	56	1	7
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	133	1	**133**	99	1	99
	Left-Through		0			0	
	Through	735	1	395	608	1	**322**
	Through-Right		1			1	
	Right	55	0	55	36	0	36
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	106	1	106	120	1	**120**
	Left-Through		0			0	
	Through	895	2	**448**	486	2	243
	Through-Right		0			0	
	Right	223	1	54	204	1	7
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	605		*North-South:*	572
			East-West:	581		*East-West:*	442
			SUM:	1186		*SUM:*	1014
	VOLUME/CAPACITY *(V/C)* RATIO:			0.863			0.737
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.763**			**0.637**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
5	North-South Street:	Vermont Ave	East-West Street:	39th St
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	1	**32**	33	1	**33**
	Left-Through		0			0	
	Through	706	1	353	770	1	385
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	1	0	0	1	0
	Left-Through		0			0	
	Through	1164	1	**619**	917	1	**495**
	Through-Right		1			1	
	Right	74	0	74	72	0	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	45	0	45	48	0	48
	Left-Through		0			0	
	Through	0	0	**95**	0	0	**99**
	Through-Right		0			0	
	Right	50	0	0	51	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	651		*North-South:*	528
			East-West:	95		*East-West:*	99
			SUM:	746		*SUM:*	627
VOLUME/CAPACITY *(V/C)* RATIO:				0.497			0.418
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.397**			**0.318**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	105	1	**105**	122	1	**122**
	Left-Through		0			0	
	Through	510	1	288	389	1	247
	Through-Right		1			1	
	Right	66	0	66	105	0	105
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	244	1	244	235	1	235
	Left-Through		0			0	
	Through	886	1	**480**	651	1	**369**
	Through-Right		1			1	
	Right	73	0	73	87	0	87
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	75	1	**75**	108	1	**108**
	Left-Through		0			0	
	Through	1226	2	441	980	2	362
	Through-Right		1			1	
	Right	96	0	96	106	0	106
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	111	1	111	117	1	117
	Left-Through		0			0	
	Through	1454	2	**540**	1219	2	**499**
	Through-Right		1			1	
	Right	165	0	165	277	0	277
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	585		*North-South:*	491
			East-West:	615		*East-West:*	607
			SUM:	1200		*SUM:*	1098
VOLUME/CAPACITY *(V/C)* RATIO:				0.873			0.799
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.773**			**0.699**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
7	North-South Street:	Bill Robertson Ln	East-West Street:	Exposition Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	197	1	197	225	1	225
	Left-Through		0			0	
	Through	0	0	**201**	0	0	**304**
	Through-Right		1			1	
	Right	201	0	0	304	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	856	1	**492**	633	1	**446**
	Through-Right		1			1	
	Right	127	0	127	258	0	258
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	66	1	**66**	179	1	**179**
	Left-Through		0			0	
	Through	1030	1	515	589	1	295
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	201		*North-South:*	304
			East-West:	558		*East-West:*	625
			SUM:	759		*SUM:*	929
	VOLUME/CAPACITY *(V/C)* RATIO:			0.533			0.652
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.433**			**0.552**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
8	North-South Street:	Bill Robertson Ln	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0 / EB -- 0	SB -- / WB --	0 / 0	NB -- 0 / EB -- 0	SB -- / WB --	0 / 0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	17	0	**17**	12	0	**12**
	Left-Through		0			0	
	Through	12	0	46	11	0	55
	Through-Right		0			0	
	Right	17	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	109	0	109	188	0	188
	Left-Through		0			0	
	Through	43	0	**259**	19	0	**341**
	Through-Right		0			0	
	Right	107	0	0	134	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	68	1	68	96	1	96
	Left-Through		0			0	
	Through	1454	2	**727**	1226	2	**613**
	Through-Right		0			0	
	Right	51	1	51	27	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	78	1	**78**	34	1	**34**
	Left-Through		0			0	
	Through	1621	2	584	1435	2	546
	Through-Right		1			1	
	Right	130	0	130	204	0	204
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	276		*North-South:*	353
			East-West:	805		*East-West:*	647
			SUM:	1081		*SUM:*	1000
	VOLUME/CAPACITY *(V/C)* RATIO:			0.721			0.667
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.621**			**0.567**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hoover St **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	229	1	**229**	233	1	**233**
	Left-Through		0			0	
	Through	6	1	6	8	1	8
	Through-Right		1			1	
	Right	87	0	10	149	0	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	21	1	21	76	1	76
	Left-Through		0			0	
	Through	35	1	**33**	17	1	17
	Through-Right		1			1	
	Right	31	0	31	31	0	**25**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	8	1	8	13	1	13
	Left-Through		0			0	
	Through	1184	2	**531**	1230	2	**462**
	Through-Right		1			1	
	Right	410	0	410	155	0	155
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	154	1	**154**	146	1	**146**
	Left-Through		0			0	
	Through	1567	2	536	1407	2	485
	Through-Right		1			1	
	Right	41	0	41	49	0	49
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	262		*North-South:*	258
			East-West:	685		*East-West:*	608
			SUM:	947		*SUM:*	866
VOLUME/CAPACITY *(V/C)* RATIO:				0.631			0.577
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.531**			**0.477**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art			
10	North-South Street:	Figueroa St	East-West Street:	Jefferson Blvd	
	Scenario:	Existing with Project Conditions			
	Count Date:		Analyst:	GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 3	WB --	0	EB -- 3	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	235	1	**235**	141	1	**141**
	Left-Through		0			0	
	Through	1146	3	382	860	3	287
	Through-Right		0			0	
	Right	97	1	45	61	1	19
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	111	1	111	109	1	109
	Left-Through		0			0	
	Through	859	2	**325**	681	2	**268**
	Through-Right		1			1	
	Right	115	0	115	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	258	2	**142**	133	2	**73**
	Left-Through		0			0	
	Through	876	3	292	400	3	133
	Through-Right		0			0	
	Right	449	1	214	227	1	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	104	1	104	85	1	85
	Left-Through		0			0	
	Through	773	2	**387**	370	2	**185**
	Through-Right		0			0	
	Right	189	1	134	172	1	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	560		*North-South:*	409
			East-West:	529		*East-West:*	258
			SUM:	1089		*SUM:*	667
	VOLUME/CAPACITY *(V/C)* RATIO:			0.792			0.485
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.692**			**0.385**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
11	North-South Street:	Figueroa St	East-West Street:	Exposition Blvd / 37th St
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	3	NB -- 0	SB --	3
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	228	1	**228**	167	1	**167**
	Left-Through		0			0	
	Through	857	3	286	657	3	219
	Through-Right		0			0	
	Right	31	1	16	46	1	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	131	1	131	141	1	141
	Left-Through		0			0	
	Through	885	2	**443**	779	2	**390**
	Through-Right		0			0	
	Right	253	1	78	162	1	87
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	319	2	**175**	137	2	**75**
	Left-Through		0			0	
	Through	606	3	202	526	3	175
	Through-Right		0			0	
	Right	353	1	239	266	1	183
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	30	1	30	57	1	57
	Left-Through		0			0	
	Through	684	2	**342**	477	2	**239**
	Through-Right		0			0	
	Right	319	1	188	142	1	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	671		*North-South:*	557
			East-West:	517		*East-West:*	314
			SUM:	1188		*SUM:*	871
	VOLUME/CAPACITY *(V/C)* RATIO:			0.864			0.633
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.764**			**0.533**
	LEVEL OF SERVICE (LOS):			**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
12	North-South Street:	Figueroa St	East-West Street:	Flower St
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	843	2	**422**	823	2	**412**
	Through-Right		0			0	
	Right	66	1	0	93	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	68	1	**68**	47	1	**47**
	Left-Through		0			0	
	Through	1214	3	405	1092	3	364
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	537	2	**295**	284	2	**156**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	52	1	18	53	1	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	490		*North-South:*	459
			East-West:	295		*East-West:*	156
			SUM:	785		*SUM:*	615
VOLUME/CAPACITY *(V/C)* RATIO:				0.523			0.410
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.423**			**0.310**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
13	North-South Street:	Figueroa St	East-West Street:	39th St / Coliseum
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	38	2	**21**	97	2	**53**
	Left-Through		0			0	
	Through	664	2	264	653	2	254
	Through-Right		1			1	
	Right	129	0	129	109	0	109
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	231	2	127	114	2	63
	Left-Through		0			0	
	Through	1447	2	**484**	1011	2	**347**
	Through-Right		1			1	
	Right	6	0	6	29	0	29
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	82	1	**45**	114	1	**63**
	Left-Through		1			1	
	Through	32	0	40	28	0	58
	Through-Right		1			1	
	Right	8	0	8	30	0	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	249	1	137	166	1	91
	Left-Through		1			1	
	Through	21	0	**207**	28	0	**152**
	Through-Right		1			1	
	Right	186	0	186	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	505		*North-South:*	400
			East-West:	252		*East-West:*	215
			SUM:	757		*SUM:*	615
	VOLUME/CAPACITY *(V/C)* RATIO:			0.551			0.447
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.451**			**0.347**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
14	North-South Street:	Figueroa St	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	78	1	**78**	107	1	**107**
	Left-Through		0			0	
	Through	513	3	171	442	3	147
	Through-Right		0			0	
	Right	119	1	0	147	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	206	1	206	224	1	224
	Left-Through		0			0	
	Through	1206	2	**513**	697	2	**349**
	Through-Right		1			1	
	Right	333	0	333	355	0	233
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	213	1	**213**	244	1	**244**
	Left-Through		0			0	
	Through	980	2	372	1166	2	426
	Through-Right		1			1	
	Right	135	0	135	112	0	112
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	258	1	258	192	1	192
	Left-Through		0			0	
	Through	1298	2	**458**	1153	2	**428**
	Through-Right		1			1	
	Right	77	0	77	132	0	132
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	591		*North-South:*	456
			East-West:	671		*East-West:*	672
			SUM:	1262		*SUM:*	1128
	VOLUME/CAPACITY *(V/C)* RATIO:			0.918			0.820
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.818**			**0.720**
	LEVEL OF SERVICE (LOS):			**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
15	North-South Street:	Flower St	East-West Street:	Exposition / I-110 SB Off-ramp
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	*NB --* 0	*SB --*	0	*NB --* 0	*SB --*	0
	EB -- 0	*WB --*	0	*EB --* 0	*WB --*	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	1	0
	Left-Through		1			1	
	Through	0	1	**0**	0	1	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1235	4	**309**	799	4	**200**
	Through-Right		0			0	
	Right	205	1	205	87	1	87
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	63	0	63	28	0	28
	Left-Through		1			1	
	Through	545	1	**304**	290	1	**159**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	309		*North-South:*	200
			East-West:	304		*East-West:*	159
			SUM:	613		*SUM:*	359
VOLUME/CAPACITY *(V/C)* RATIO:				0.409			0.239
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.309**			**0.139**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
16	North-South Street:	Flower St	East-West Street:	37th St / I-110 SB On-ramp
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	123	1	**123**	90	1	**90**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	784	2	**431**	681	2	**375**
	Left-Through		0			0	
	Through	766	2	383	267	2	134
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	715	4	**159**	719	4	**154**
	Through-Right		1			1	
	Right	81	0	81	49	0	49
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	554		*North-South:*	465
			East-West:	159		*East-West:*	154
			SUM:	713		*SUM:*	619
	VOLUME/CAPACITY *(V/C)* RATIO:			0.500			0.434
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.400**			**0.334**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
17	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hope / I-110 NB Off-ram **East-West Street:** 37th St
Scenario: Existing with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	740	2	**334**	461	2	**179**
	Through-Right		1			1	
	Right	261	0	261	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	342	2	**188**	313	2	**172**
	Left-Through		0			0	
	Through	342	2	171	112	2	56
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	171	1	**171**	120	1	**120**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	334		*North-South:*	179
			East-West:	359		*East-West:*	292
			SUM:	693		*SUM:*	471
VOLUME/CAPACITY *(V/C)* RATIO:				0.486			0.331
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.386**			**0.231**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
18	North-South Street:	I-110 HOV Ramps	East-West Street:	39th St
	Scenario:	Existing with Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	PM Volume	PM No. of Lanes	PM Lane Volume	MD Volume	MD No. of Lanes	MD Lane Volume
NORTHBOUND	Left	200	0	200	131	0	131
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	161	0	**361**	20	0	**151**
	Left-Through-Right		0			0	
	Left-Right		1			1	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	160	2	80	98	2	49
	Through-Right		0			0	
	Right	283	1	**283**	142	1	**142**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	332	1	**332**	63	1	**63**
	Left-Through		0			0	
	Through	357	2	179	186	2	93
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	361		*North-South:*	151
			East-West:	615		*East-West:*	205
			SUM:	976		*SUM:*	356
VOLUME/CAPACITY *(V/C)* RATIO:				0.651			0.237
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.551**			**0.137**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 19

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: I-110 SB Ramps East-West Street: Martin Luther King Jr. Blvd
Scenario: Existing with Project Conditions
Count Date: Analyst: GTC Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --		0	NB -- 0	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	278	1	278	246	1	239
	Left-Through		0			0	
	Through	60	0	**311**	44	0	**239**
	Through-Right		0			0	
	Right	562	1	0	428	1	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	962	2	**427**	1012	2	506
	Through-Right		1			1	
	Right	319	0	319	521	0	**521**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	397	1	**397**	209	1	**209**
	Left-Through		0			0	
	Through	1142	3	381	1076	3	359
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	311		*North-South:*	239
			East-West:	824		*East-West:*	730
			SUM:	1135		*SUM:*	969
VOLUME/CAPACITY *(V/C)* RATIO:				0.757			0.646
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.657**			**0.546**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
20	

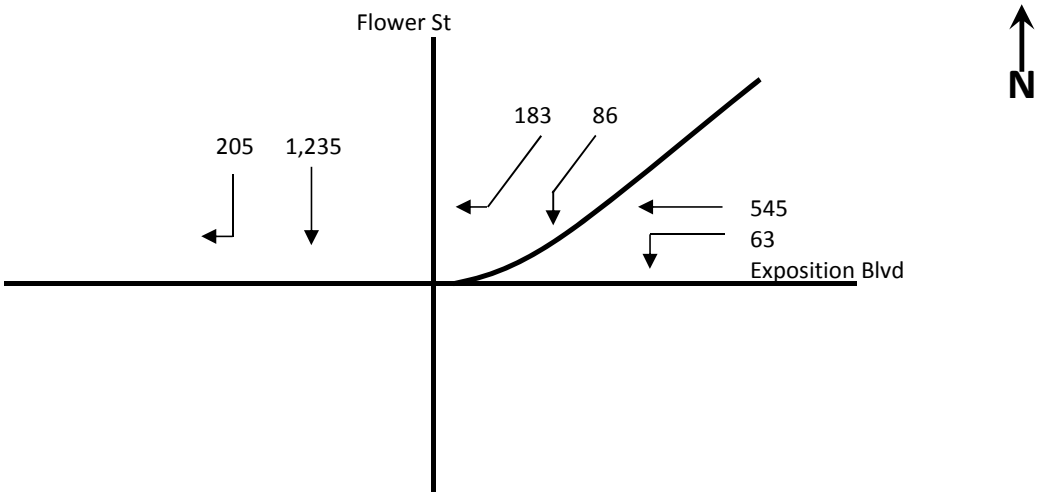
PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hill / I-110 NB Ramps **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Existing with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	308	1	308	410	1	**349**
	Left-Through		0			0	
	Through	205	0	**508**	107	0	349
	Through-Right		0			0	
	Right	303	0	0	180	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	85	1	85	42	1	**42**
	Left-Through		0			0	
	Through	6	1	6	7	1	7
	Through-Right		0			0	
	Right	375	1	**331**	6	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	88	1	88	72	1	72
	Left-Through		0			0	
	Through	1051	2	**392**	838	2	**396**
	Through-Right		1			1	
	Right	124	0	124	350	0	350
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	41	1	**41**	105	1	**105**
	Left-Through		0			0	
	Through	851	2	304	844	2	422
	Through-Right		1			0	
	Right	62	0	62	45	1	24
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	839		*North-South:*	391
			East-West:	433		*East-West:*	501
			SUM:	1272		*SUM:*	892
VOLUME/CAPACITY *(V/C)* RATIO:				0.925			0.649
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.825**			**0.549**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Existing with Project Conditions - PM Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{1,235}{4} = 309$ or

Southbound Rights: 205

Critical Volume #1 (CV1): **309**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{183 + 86}{3} = \frac{269}{3} = 90$$

Critical Volume #2 (CV2): **90**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{545 + 63}{2} = \frac{608}{2} = 304$$

Critical Volume #3 (CV3): **304**

Critical Volume: 309 + 90 + 304 = **703**

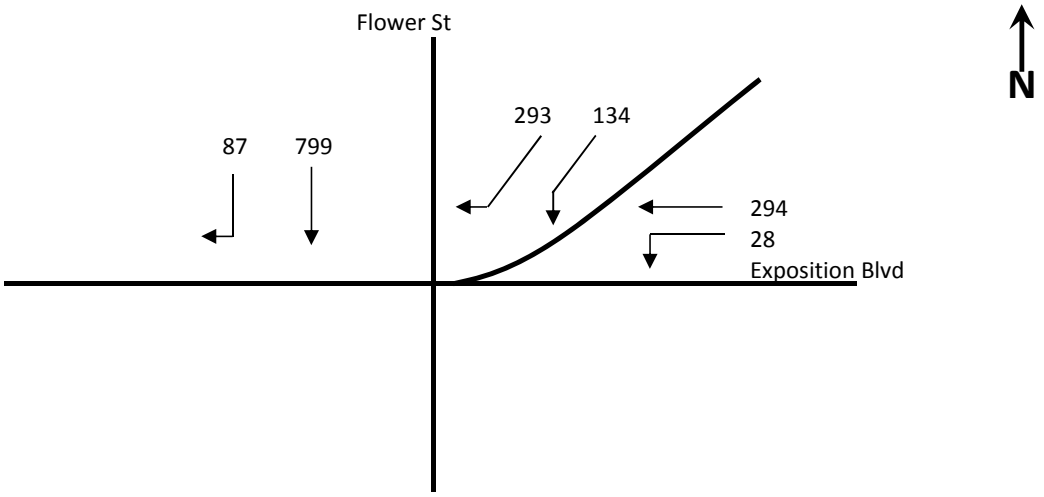
Intersection V/C: $\frac{703}{1425} =$ **0.493**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.393** **Intersection LOS:** **A**

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Existing with Project Conditions - MD Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{799}{4} = 200$ or

Southbound Rights: 87

Critical Volume #1 (CV1): **200**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{293 + 134}{3} = \frac{427}{3} = 142$$

Critical Volume #2 (CV2): **142**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{294 + 28}{2} = \frac{322}{2} = 161$$

Critical Volume #3 (CV3): **161**

Critical Volume: 200 + 142 + 161 = **503**

Intersection V/C: $\frac{503}{1425} =$ **0.353**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.253** **Intersection LOS:** **A**

Future without Project Conditions (Year 2021)

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
1	North-South Street:	Normandie Ave	East-West Street:	Exposition Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	69	1	**69**	69	1	69
	Left-Through		0			0	
	Through	907	1	473	977	1	**514**
	Through-Right		1			1	
	Right	38	0	38	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	96	1	96	163.8	1	**164**
	Left-Through		0			0	
	Through	1018	1	**521**	965	1	509
	Through-Right		1			1	
	Right	24	0	24	52	0	52
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	89	1	**89**	78	1	78
	Left-Through		0			0	
	Through	692	1	416	549.4	1	**307**
	Through-Right		1			1	
	Right	140	0	140	65	0	65
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	1	134	79	1	**79**
	Left-Through		0			0	
	Through	892	1	**522**	418.2	1	250
	Through-Right		1			1	
	Right	152	0	152	82	0	82
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	590		*North-South:*	678
			East-West:	611		*East-West:*	386
			SUM:	1201		*SUM:*	1064
	VOLUME/CAPACITY *(V/C)* RATIO:			0.873			0.774
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.773**			**0.674**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Normandie Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	91	1	**91**	112	1	112
	Left-Through		0			0	
	Through	768	1	424	797	1	**459**
	Through-Right		1			1	
	Right	80	0	80	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	97	1	97	86	1	**86**
	Left-Through		0			0	
	Through	958	1	**505**	701	1	411
	Through-Right		1			1	
	Right	51	0	51	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	111	1	111	126	1	126
	Left-Through		0			0	
	Through	1209	2	**446**	1139	2	**419**
	Through-Right		1			1	
	Right	130	0	130	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	145	1	**145**	102	1	**102**
	Left-Through		0			0	
	Through	1385	3	462	1185	3	395
	Through-Right		0			0	
	Right	134	1	86	182	1	139
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	596		*North-South:*	545
			East-West:	591		*East-West:*	521
			SUM:	1187		*SUM:*	1066
VOLUME/CAPACITY *(V/C)* RATIO:				0.863			0.775
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.763**			**0.675**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
2	North-South Street:	Vermont Ave	East-West Street:	Jefferson Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	128	1	128	81	1	**81**
	Left-Through		0			0	
	Through	1060	2	**441**	780	2	307
	Through-Right		1			1	
	Right	263	0	263	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	163	1	**163**	95	1	95
	Left-Through		0			0	
	Through	1077	2	403	938.8	2	**356**
	Through-Right		1			1	
	Right	133	0	133	129	0	129
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	135	1	135	172	1	172
	Left-Through		0			0	
	Through	753	1	**424**	453	1	**289**
	Through-Right		1			1	
	Right	95	0	95	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	264	1	**264**	208	1	**208**
	Left-Through		0			0	
	Through	888	2	444	414	2	207
	Through-Right		0			0	
	Right	153	1	0	93.4	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	604		*North-South:*	437
			East-West:	688		*East-West:*	497
			SUM:	1292		*SUM:*	934
	VOLUME/CAPACITY *(V/C)* RATIO:			0.940			0.679
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.840**			**0.579**
	LEVEL OF SERVICE (LOS):			**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
4	North-South Street:	Vermont Ave	East-West Street:	Exposition Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	3	EB -- 0	WB --	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	93	1	**93**	59	1	59
	Left-Through		0			0	
	Through	717	1	397	783	1	**428**
	Through-Right		1			1	
	Right	76	0	76	73.4	0	73
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	195	1	195	182	1	**182**
	Left-Through		0			0	
	Through	1137	2	**569**	1003	2	502
	Through-Right		0			0	
	Right	102	1	26	99.8	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	152	1	**152**	114	1	114
	Left-Through		0			0	
	Through	790	1	432	611.2	1	**345**
	Through-Right		1			1	
	Right	74	0	74	78.2	0	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	110	1	110	125	1	**125**
	Left-Through		0			0	
	Through	920	2	**460**	463	2	232
	Through-Right		0			0	
	Right	237	1	42	175	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	662		*North-South:*	610
			East-West:	612		*East-West:*	470
			SUM:	1274		*SUM:*	1080
VOLUME/CAPACITY *(V/C)* RATIO:				0.927			0.785
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.827**			**0.685**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
5	North-South Street:	Vermont Ave	East-West Street:	39th St
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	33	1	**33**	34	1	**34**
	Left-Through		0			0	
	Through	783	1	392	839.4	1	431
	Through-Right		1			1	
	Right	1	0	1	22	0	22
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	10	1	10	63	1	63
	Left-Through		0			0	
	Through	1247	1	**662**	982.6	1	**529**
	Through-Right		1			1	
	Right	77	0	77	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	47	0	**47**	50	0	**50**
	Left-Through		0			0	
	Through	4	0	103	18	0	121
	Through-Right		0			0	
	Right	52	0	0	53	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
WESTBOUND	Left	12	0	12	11	0	11
	Left-Through		0			0	
	Through	45	0	**90**	21	0	**117**
	Through-Right		0			0	
	Right	33	0	0	85	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	695		*North-South:*	563
			East-West:	137		*East-West:*	167
			SUM:	832		*SUM:*	730
VOLUME/CAPACITY *(V/C)* RATIO:				0.555			0.487
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.455**			**0.387**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	109	1	**109**	127	1	**127**
	Left-Through		0			0	
	Through	551	1	309	442	1	262
	Through-Right		1			1	
	Right	67	0	67	82	0	82
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	272	1	272	259.2	1	259
	Left-Through		0			0	
	Through	943	1	**514**	695	1	**397**
	Through-Right		1			1	
	Right	85	0	85	99.4	0	99
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	80	1	**80**	113.6	1	**114**
	Left-Through		0			0	
	Through	1330	2	477	1052.6	2	388
	Through-Right		1			1	
	Right	100	0	100	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	107	1	107	109	1	109
	Left-Through		0			0	
	Through	1522	2	**567**	1270	2	**521**
	Through-Right		1			1	
	Right	178	0	178	293	0	293
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	623		*North-South:*	524
			East-West:	647		*East-West:*	635
			SUM:	1270		*SUM:*	1159
VOLUME/CAPACITY *(V/C)* RATIO:				0.924			0.843
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.824**			**0.743**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
7	North-South Street:	Bill Robertson Ln	East-West Street:	Exposition Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0 SB --		0	NB -- 0 SB --		0
		EB -- 0 WB --		0	EB -- 0 WB --		0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	108	1	108	85	1	85
	Left-Through		0			0	
	Through	0	0	**116**	0	0	**176**
	Through-Right		1			1	
	Right	116	0	0	176	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	990	1	**547**	740.2	1	**451**
	Through-Right		1			1	
	Right	103	0	103	162	0	162
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	37	1	**37**	125	1	**125**
	Left-Through		0			0	
	Through	1161	1	581	682	1	341
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	116		*North-South:*	176
			East-West:	584		*East-West:*	576
			SUM:	700		*SUM:*	752
VOLUME/CAPACITY *(V/C)* RATIO:				0.491			0.528
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.391**			**0.428**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Bill Robertson Ln **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	18	0	**18**	12	0	**12**
	Left-Through		0			0	
	Through	12	0	48	11	0	56
	Through-Right		0			0	
	Right	18	0	0	33	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	92	0	92	162	0	162
	Left-Through		0			0	
	Through	45	0	**204**	20	0	**276**
	Through-Right		0			0	
	Right	67	0	0	94	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	59	1	59	52	1	52
	Left-Through		0			0	
	Through	1566	2	**783**	1321.4	2	**661**
	Through-Right		0			0	
	Right	53	1	53	28	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	81	1	**81**	35	1	**35**
	Left-Through		0			0	
	Through	1767	2	625	1554.2	2	571
	Through-Right		1			1	
	Right	108	0	108	158	0	158
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	222		*North-South:*	288
			East-West:	864		*East-West:*	696
			SUM:	1086		*SUM:*	984
VOLUME/CAPACITY *(V/C)* RATIO:				0.724			0.656
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.624**			**0.556**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hoover St **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	238	1	**238**	242	1	**242**
	Left-Through		0			0	
	Through	6	1	6	8	1	8
	Through-Right		1			1	
	Right	91	0	11	155	0	79
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	56	1	56	106	1	106
	Left-Through		0			0	
	Through	36	1	36	18	1	18
	Through-Right		1			1	
	Right	43	0	**38**	41	0	**33**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	11	1	11	17	1	17
	Left-Through		0			0	
	Through	1249	2	**559**	1280.4	2	**480**
	Through-Right		1			1	
	Right	427	0	427	161	0	161
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	160	1	**160**	152	1	**152**
	Left-Through		0			0	
	Through	1655	2	569	1448.2	2	502
	Through-Right		1			1	
	Right	53	0	53	59	0	59
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	276		*North-South:*	275
			East-West:	719		*East-West:*	632
			SUM:	995		*SUM:*	907
VOLUME/CAPACITY *(V/C)* RATIO:				0.663			0.605
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.563**			**0.505**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 10

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Figueroa St **East-West Street:** Jefferson Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 3	WB --	0	EB -- 3	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	245	1	245	147	1	147
	Left-Through		0			0	
	Through	1356	2	**678**	1018	2	**509**
	Through-Right		0			0	
	Right	101	1	47	63	1	19
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	128	1	**128**	123	1	**123**
	Left-Through		0			0	
	Through	1019	2	510	813	2	407
	Through-Right		0			0	
	Right	125	1	50	133	1	94
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	273	2	**150**	142	2	**78**
	Left-Through		0			0	
	Through	921	3	307	423	3	141
	Through-Right		0			0	
	Right	467	1	222	236	1	89
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	108	1	108	88	1	88
	Left-Through		0			0	
	Through	819	2	**410**	397	2	**199**
	Through-Right		0			0	
	Right	222	1	158	199.6	1	139
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	806		*North-South:*	632
			East-West:	560		*East-West:*	277
			SUM:	1366		*SUM:*	909
VOLUME/CAPACITY *(V/C)* RATIO:				0.993			0.661
***V/C* LESS ATSAC/ATCS ADJUSTMENT:**				**0.893**			**0.561**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
11	North-South Street:	Figueroa St	East-West Street:	Exposition Blvd / 37th St
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	3	NB -- 0	SB --	3
	EB -- 0	WB --	3	EB -- 0	WB --	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	266	1	**266**	191	1	**191**
	Left-Through		0			0	
	Through	1056	2	528	806	2	403
	Through-Right		0			0	
	Right	40	1	25	54.4	1	25
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	144	1	144	153	1	153
	Left-Through		0			0	
	Through	1038	2	**519**	909	2	**455**
	Through-Right		0			0	
	Right	292	1	109	192.2	1	113
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	332	2	**183**	143	2	**79**
	Left-Through		0			0	
	Through	602	3	201	472	3	157
	Through-Right		0			0	
	Right	406	1	273	296.4	1	201
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	31	1	31	59	1	59
	Left-Through		0			0	
	Through	741	2	**371**	486	2	**243**
	Through-Right		0			0	
	Right	332	1	188	148	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	785		*North-South:*	646
			East-West:	554		*East-West:*	322
			SUM:	1339		*SUM:*	968
VOLUME/CAPACITY *(V/C)* RATIO:				0.974			0.704
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.874**			**0.604**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
12	North-South Street:	Figueroa St	East-West Street:	Flower St
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --		0	NB -- 3	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	1070	2	535	996	2	498
	Through-Right		0			0	
	Right	257	1	0	231	1	8
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	71	1	71	49	1	49
	Left-Through		0			0	
	Through	1404	2	**702**	1240.4	2	**620**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	678	2	**373**	404.6	2	**223**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	54	1	19	55	1	31
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	702		*North-South:*	620
			East-West:	373		*East-West:*	223
			SUM:	1075		*SUM:*	843
VOLUME/CAPACITY *(V/C)* RATIO:				0.717			0.562
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.617**			**0.462**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 13

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Figueroa St **East-West Street:** 39th St / Coliseum
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	53	2	**29**	111	2	**61**
	Left-Through		0			0	
	Through	807	2	404	773	2	387
	Through-Right		0			0	
	Right	129	1	61	106	1	64
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	220	2	121	88	2	48
	Left-Through		0			0	
	Through	1621	2	**811**	1144.2	2	**572**
	Through-Right		0			0	
	Right	30	1	0	48	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	173	1	95	186	1	102
	Left-Through		1			1	
	Through	79	0	**133**	66	0	**134**
	Through-Right		1			1	
	Right	54	0	54	68	0	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	249	1	137	152	1	84
	Left-Through		1			1	
	Through	35	0	**226**	39	0	**163**
	Through-Right		1			1	
	Right	191	0	191	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	840		*North-South:*	633
			East-West:	359		*East-West:*	297
			SUM:	1199		*SUM:*	930
VOLUME/CAPACITY *(V/C)* RATIO:				0.872			0.676
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.772**			**0.576**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
14	North-South Street:	Figueroa St	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	91	1	**91**	119	1	119
	Left-Through		0			0	
	Through	681	2	341	583	2	**292**
	Through-Right		0			0	
	Right	124	1	0	153	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	322	1	322	308	1	**308**
	Left-Through		0			0	
	Through	1390	2	**695**	828	2	414
	Through-Right		0			0	
	Right	394	1	275	392.2	1	258
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	239	1	**239**	268	1	**268**
	Left-Through		0			0	
	Through	1043	2	409	1219	2	457
	Through-Right		1			1	
	Right	183	0	183	152	0	152
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	268	1	268	200	1	200
	Left-Through		0			0	
	Through	1356	2	**511**	1183	2	**471**
	Through-Right		1			1	
	Right	178	0	178	230	0	230
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	786		*North-South:*	600
			East-West:	750		*East-West:*	739
			SUM:	1536		*SUM:*	1339
	VOLUME/CAPACITY *(V/C)* RATIO:			1.117			0.974
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**1.017**			**0.874**
	LEVEL OF SERVICE (LOS):			**F**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
15	North-South Street:	Flower St	East-West Street:	Exposition / I-110 SB Off-ramp
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	1	0
	Left-Through		1			1	
	Through	0	1	**0**	0	1	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1299	4	**325**	842	4	**211**
	Through-Right		0			0	
	Right	213	1	213	91	1	91
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	66	0	66	29	0	29
	Left-Through		1			1	
	Through	594	1	**330**	318.2	1	**174**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	325		*North-South:*	211
			East-West:	330		*East-West:*	174
			SUM:	655		*SUM:*	385
	VOLUME/CAPACITY *(V/C)* RATIO:			0.437			0.257
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.337**			**0.157**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 16

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Flower St East-West Street: 37th St / I-110 SB On-ramp
Scenario: Future without Project Conditions
Count Date: Analyst: GTC Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0 SB --		0	NB -- 0 SB --		0
		EB -- 0 WB --		0	EB -- 0 WB --		0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	316	1	**316**	228	1	**228**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	830	2	**457**	720	2	**396**
	Left-Through		0			0	
	Through	904	2	452	377	2	189
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	723	4	**161**	680	4	**146**
	Through-Right		1			1	
	Right	84	0	84	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	773		*North-South:*	624
			East-West:	161		*East-West:*	146
			SUM:	934		*SUM:*	770
VOLUME/CAPACITY *(V/C)* RATIO:				0.655			0.540
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.555**			**0.440**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
17	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hope / I-110 NB Off-ram **East-West Street:** 37th St
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	824	2	**365**	517.6	2	**199**
	Through-Right		1			1	
	Right	272	0	272	80	0	80
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	487	2	**268**	371	2	**204**
	Left-Through		0			0	
	Through	356	2	178	117	2	59
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	178	1	**178**	125	1	**125**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	365		*North-South:*	199
			East-West:	446		*East-West:*	329
			SUM:	811		*SUM:*	528
VOLUME/CAPACITY *(V/C)* RATIO:				0.569			0.371
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.469**			**0.271**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
18	North-South Street:	I-110 HOV Ramps	East-West Street:	39th St
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	PM Volume	PM No. of Lanes	PM Lane Volume	MD Volume	MD No. of Lanes	MD Lane Volume
NORTHBOUND	Left	279	0	279	188	0	188
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	168	0	**447**	21	0	**209**
	Left-Through-Right		0			0	
	Left-Right		1			1	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	166	2	83	102	2	51
	Through-Right		0			0	
	Right	395	1	**395**	198	1	**198**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	345	1	**345**	66	1	**66**
	Left-Through		0			0	
	Through	371	2	186	194	2	97
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	447		*North-South:*	209
			East-West:	740		*East-West:*	264
			SUM:	1187		*SUM:*	473
VOLUME/CAPACITY *(V/C)* RATIO:				0.791			0.315
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.691**			**0.215**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
19	North-South Street:	I-110 SB Ramps	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Future without Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	5	0	**0**	4	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	292	1	292	259	1	258
	Left-Through		0			0	
	Through	62	0	**341**	46	0	**258**
	Through-Right		0			0	
	Right	620	1	0	469	1	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1073	2	**488**	1105	2	553
	Through-Right		1			1	
	Right	391	0	391	571	0	**571**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	415	1	**415**	219	1	**219**
	Left-Through		0			0	
	Through	1252	3	417	1169	3	390
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	341		*North-South:*	258
			East-West:	903		*East-West:*	790
			SUM:	1244		*SUM:*	1048
	VOLUME/CAPACITY *(V/C)* RATIO:			0.829			0.699
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.729**			**0.599**
	LEVEL OF SERVICE (LOS):			**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
20	

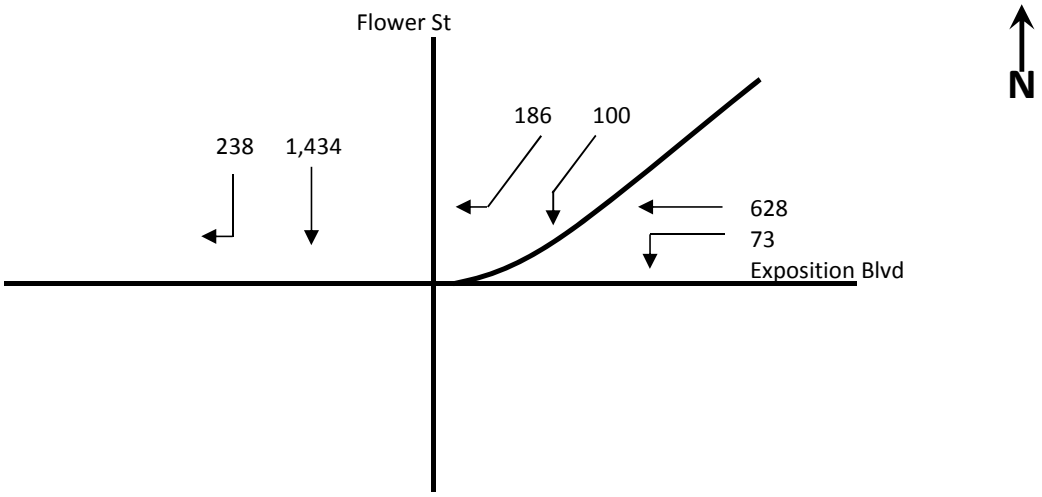
PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hill / I-110 NB Ramps **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future without Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	376	1	376	470	1	**386**
	Left-Through		0			0	
	Through	213	0	**531**	111	0	386
	Through-Right		0			0	
	Right	318	0	0	190	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	100	1	100	53.6	1	**54**
	Left-Through		0			0	
	Through	6	1	6	7	1	7
	Through-Right		0			0	
	Right	390	1	**344**	6	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	92	1	92	75	1	75
	Left-Through		0			0	
	Through	1109	2	**433**	884	2	**430**
	Through-Right		1			1	
	Right	189	0	189	406	0	406
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	50	1	**50**	115	1	**115**
	Left-Through		0			0	
	Through	896	2	320	886	2	443
	Through-Right		1			0	
	Right	65	0	65	47	1	20
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	875		*North-South:*	440
			East-West:	483		*East-West:*	545
			SUM:	1358		*SUM:*	985
VOLUME/CAPACITY *(V/C)* RATIO:				0.988			0.716
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.888**			**0.616**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Future without Project Conditions - PM Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{1,434}{4} = 359$ or

Southbound Rights: 238

Critical Volume #1 (CV1): **359**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{186 + 100}{3} = \frac{286}{3} = 95$$

Critical Volume #2 (CV2): **95**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{628 + 73}{2} = \frac{701}{2} = 351$$

Critical Volume #3 (CV3): **351**

Critical Volume: 359 + 95 + 351 = **805**

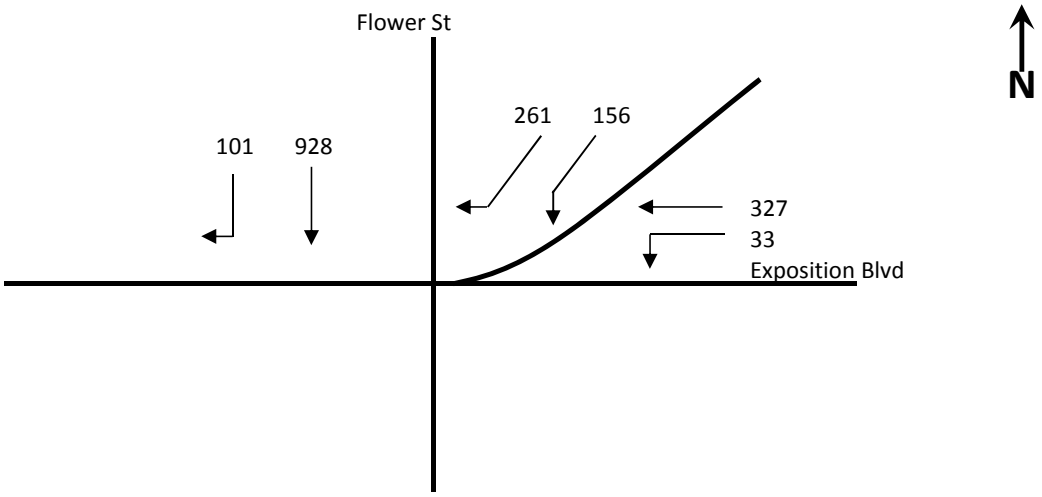
Intersection V/C: $\frac{805}{1425} =$ **0.565**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.465** **Intersection LOS:** **A**

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Future without Project Conditions - MD Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{928}{4} = 232$ or

Southbound Rights: 101

Critical Volume #1 (CV1): **232**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{261 + 156}{3} = \frac{417}{3} = 139$$

Critical Volume #2 (CV2): **139**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{327 + 33}{2} = \frac{360}{2} = 180$$

Critical Volume #3 (CV3): **180**

Critical Volume: 232 + 139 + 180 = **551**

Intersection V/C: $\frac{551}{1425} =$ **0.387**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.287** **Intersection LOS:** **A**

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
1	North-South Street:	Normandie Ave	East-West Street:	Exposition Blvd
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	69	1	**69**	69	1	69
	Left-Through		0			0	
	Through	907	1	473	977	1	**514**
	Through-Right		1			1	
	Right	38	0	38	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	100	1	100	172	1	**172**
	Left-Through		0			0	
	Through	1018	1	**521**	965	1	509
	Through-Right		1			1	
	Right	24	0	24	52	0	52
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	89	1	**89**	78	1	78
	Left-Through		0			0	
	Through	696	1	418	557	1	**311**
	Through-Right		1			1	
	Right	140	0	140	65	0	65
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	1	134	79	1	**79**
	Left-Through		0			0	
	Through	900	1	**530**	430	1	262
	Through-Right		1			1	
	Right	160	0	160	94	0	94
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	590		*North-South:*	686
			East-West:	619		*East-West:*	390
			SUM:	1209		*SUM:*	1076
	VOLUME/CAPACITY *(V/C)* RATIO:			0.879			0.783
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.779**			**0.683**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Normandie Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	91	1	**91**	112	1	112
	Left-Through		0			0	
	Through	768	1	424	797	1	**459**
	Through-Right		1			1	
	Right	80	0	80	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	97	1	97	86	1	**86**
	Left-Through		0			0	
	Through	958	1	**505**	701	1	411
	Through-Right		1			1	
	Right	51	0	51	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	111	1	111	126	1	**126**
	Left-Through		0			0	
	Through	1213	2	**448**	1147	2	421
	Through-Right		1			1	
	Right	130	0	130	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	145	1	**145**	102	1	102
	Left-Through		0			0	
	Through	1393	3	464	1197	3	**399**
	Through-Right		0			0	
	Right	134	1	86	182	1	139
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	596		*North-South:*	545
			East-West:	593		*East-West:*	525
			SUM:	1189		*SUM:*	1070
VOLUME/CAPACITY *(V/C)* RATIO:				0.865			0.778
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.765**			**0.678**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
2	North-South Street:	Vermont Ave	East-West Street:	Jefferson Blvd
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	128	1	128	81	1	**81**
	Left-Through		0			0	
	Through	1076	2	**446**	805	2	315
	Through-Right		1			1	
	Right	263	0	263	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	163	1	**163**	95	1	95
	Left-Through		0			0	
	Through	1085	2	406	955	2	**361**
	Through-Right		1			1	
	Right	133	0	133	129	0	129
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	135	1	135	172	1	172
	Left-Through		0			0	
	Through	753	1	**424**	453	1	**289**
	Through-Right		1			1	
	Right	95	0	95	124	0	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	264	1	**264**	208	1	**208**
	Left-Through		0			0	
	Through	888	2	444	414	2	207
	Through-Right		0			0	
	Right	153	1	0	93	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	609		*North-South:*	442
			East-West:	688		*East-West:*	497
			SUM:	1297		*SUM:*	939
	VOLUME/CAPACITY *(V/C)* RATIO:			0.943			0.683
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.843**			**0.583**
	LEVEL OF SERVICE (LOS):			**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
4	North-South Street:	Vermont Ave	East-West Street:	Exposition Blvd
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	76	1	**76**	16	1	16
	Left-Through		0			0	
	Through	700	1	388	740	1	**407**
	Through-Right		1			1	
	Right	76	0	76	73	0	73
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	208	1	208	230	1	**230**
	Left-Through		0			0	
	Through	1132	2	**566**	971	2	486
	Through-Right		0			0	
	Right	102	1	26	100	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	152	1	**152**	114	1	114
	Left-Through		0			0	
	Through	805	1	437	667	1	**357**
	Through-Right		1			1	
	Right	69	0	69	47	0	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	110	1	110	125	1	**125**
	Left-Through		0			0	
	Through	982	2	**491**	543	2	272
	Through-Right		0			0	
	Right	270	1	62	243	1	13
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	642		*North-South:*	637
			East-West:	643		*East-West:*	482
			SUM:	1285		*SUM:*	1119
	VOLUME/CAPACITY *(V/C)* RATIO:			0.935			0.814
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.835**			**0.714**
	LEVEL OF SERVICE (LOS):			**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
5	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** 39th St
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0 SB --		0	NB -- 0 SB --		0
		EB -- 0 WB --		0	EB -- 0 WB --		0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	33	1	**33**	34	1	**34**
	Left-Through		0			0	
	Through	783	1	392	839	1	420
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	1	0	0	1	0
	Left-Through		0			0	
	Through	1247	1	**662**	983	1	**529**
	Through-Right		1			1	
	Right	77	0	77	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	47	0	47	50	0	50
	Left-Through		0			0	
	Through	0	0	**99**	0	0	**103**
	Through-Right		0			0	
	Right	52	0	0	53	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	695		*North-South:*	563
			East-West:	99		*East-West:*	103
			SUM:	794		*SUM:*	666
VOLUME/CAPACITY *(V/C)* RATIO:				0.529			0.444
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.429**			**0.344**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Vermont Ave **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	109	1	**109**	127	1	127
	Left-Through		0			0	
	Through	550	1	311	420	1	**266**
	Through-Right		1			1	
	Right	72	0	72	112	0	112
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	272	1	272	259	1	**259**
	Left-Through		0			0	
	Through	937	1	**508**	690	1	392
	Through-Right		1			1	
	Right	79	0	79	93	0	93
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	80	1	**80**	114	1	**114**
	Left-Through		0			0	
	Through	1336	2	479	1070	2	393
	Through-Right		1			1	
	Right	100	0	100	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	121	1	121	126	1	126
	Left-Through		0			0	
	Through	1552	2	**577**	1297	2	**530**
	Through-Right		1			1	
	Right	178	0	178	293	0	293
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	617		*North-South:*	525
			East-West:	657		*East-West:*	644
			SUM:	1274		*SUM:*	1169
VOLUME/CAPACITY *(V/C)* RATIO:				0.927			0.850
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.827**			**0.750**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
7	North-South Street:	Bill Robertson Ln	East-West Street:	Exposition Blvd
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	203	1	203	232	1	232
	Left-Through		0			0	
	Through	0	0	**206**	0	0	**311**
	Through-Right		1			1	
	Right	206	0	0	311	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	990	1	**561**	740	1	**504**
	Through-Right		1			1	
	Right	131	0	131	267	0	267
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	67	1	**67**	184	1	**184**
	Left-Through		0			0	
	Through	1161	1	581	682	1	341
	Through-Right		1			1	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	206		*North-South:*	311
			East-West:	628		*East-West:*	688
			SUM:	834		*SUM:*	999
	VOLUME/CAPACITY *(V/C)* RATIO:			0.585			0.701
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.485**			**0.601**
	LEVEL OF SERVICE (LOS):			**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
8	North-South Street:	Bill Robertson Ln	East-West Street:	Martin Luther King Jr. Blvd
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	18	0	**18**	12	0	**12**
	Left-Through		0			0	
	Through	12	0	48	11	0	56
	Through-Right		0			0	
	Right	18	0	0	33	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	113	0	113	194	0	194
	Left-Through		0			0	
	Through	45	0	**269**	20	0	**353**
	Through-Right		0			0	
	Right	111	0	0	139	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	70	1	70	99	1	99
	Left-Through		0			0	
	Through	1566	2	**783**	1321	2	**661**
	Through-Right		0			0	
	Right	53	1	53	28	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	81	1	**81**	35	1	**35**
	Left-Through		0			0	
	Through	1767	2	634	1554	2	588
	Through-Right		1			1	
	Right	134	0	134	210	0	210
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	287		*North-South:*	365
			East-West:	864		*East-West:*	696
			SUM:	1151		*SUM:*	1061
	VOLUME/CAPACITY *(V/C)* RATIO:			0.767			0.707
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.667**			**0.607**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hoover St **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	238	1	**238**	242	1	**242**
	Left-Through		0			0	
	Through	6	1	6	8	1	8
	Through-Right		1			1	
	Right	91	0	11	155	0	79
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	56	1	56	106	1	106
	Left-Through		0			0	
	Through	36	1	36	18	1	18
	Through-Right		1			1	
	Right	43	0	**38**	41	0	**33**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	11	1	11	17	1	17
	Left-Through		0			0	
	Through	1270	2	**566**	1312	2	**491**
	Through-Right		1			1	
	Right	427	0	427	161	0	161
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	160	1	**160**	152	1	**152**
	Left-Through		0			0	
	Through	1681	2	578	1500	2	520
	Through-Right		1			1	
	Right	53	0	53	59	0	59
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	276		*North-South:*	275
			East-West:	726		*East-West:*	643
			SUM:	1002		*SUM:*	918
VOLUME/CAPACITY *(V/C)* RATIO:				0.668			0.612
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.568**			**0.512**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art			
10	North-South Street:	Figueroa St	East-West Street:	Jefferson Blvd	
	Scenario:	Future with Project Conditions			
	Count Date:		Analyst:	GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 3	WB --	0	EB -- 3	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	245	1	245	147	1	147
	Left-Through		0			0	
	Through	1359	2	**680**	1023	2	**512**
	Through-Right		0			0	
	Right	101	1	47	63	1	19
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	128	1	**128**	123	1	**123**
	Left-Through		0			0	
	Through	1021	2	511	816	2	408
	Through-Right		0			0	
	Right	125	1	50	133	1	94
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	273	2	**150**	142	2	**78**
	Left-Through		0			0	
	Through	921	3	307	423	3	141
	Through-Right		0			0	
	Right	467	1	222	236	1	89
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	108	1	108	88	1	88
	Left-Through		0			0	
	Through	819	2	**410**	397	2	**199**
	Through-Right		0			0	
	Right	222	1	158	200	1	139
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	808		*North-South:*	635
			East-West:	560		*East-West:*	277
			SUM:	1368		*SUM:*	912
	VOLUME/CAPACITY *(V/C)* RATIO:			0.995			0.663
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.895**			**0.563**
	LEVEL OF SERVICE (LOS):			**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
11	North-South Street:	Figueroa St	East-West Street:	Exposition Blvd / 37th St
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	3	NB -- 0	SB --	3
		EB -- 0	WB --	3	EB -- 0	WB --	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	268	1	**268**	196	1	**196**
	Left-Through		0			0	
	Through	1059	2	530	811	2	406
	Through-Right		0			0	
	Right	40	1	25	54	1	25
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	144	1	144	153	1	153
	Left-Through		0			0	
	Through	1040	2	**520**	912	2	**456**
	Through-Right		0			0	
	Right	292	1	109	192	1	113
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	332	2	**183**	143	2	**79**
	Left-Through		0			0	
	Through	672	3	224	577	3	192
	Through-Right		0			0	
	Right	426	1	292	325	1	227
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	31	1	31	59	1	59
	Left-Through		0			0	
	Through	768	2	**384**	540	2	**270**
	Through-Right		0			0	
	Right	332	1	188	148	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	788		*North-South:*	652
			East-West:	567		*East-West:*	349
			SUM:	1355		*SUM:*	1001
VOLUME/CAPACITY *(V/C)* RATIO:				0.985			0.728
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.885**			**0.628**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
12	North-South Street:	Figueroa St	East-West Street:	Flower St
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 3	SB --		0	NB -- 3	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	1076	2	538	1006	2	503
	Through-Right		0			0	
	Right	257	1	0	231	1	8
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	71	1	71	49	1	49
	Left-Through		0			0	
	Through	1425	2	**713**	1273	2	**637**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	678	2	**373**	405	2	**223**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	54	1	19	55	1	31
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	713		*North-South:*	637
			East-West:	373		*East-West:*	223
			SUM:	1086		*SUM:*	860
VOLUME/CAPACITY *(V/C)* RATIO:				0.724			0.573
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.624**			**0.473**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 13

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Figueroa St **East-West Street:** 39th St / Coliseum
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	53	2	**29**	111	2	**61**
	Left-Through		0			0	
	Through	807	2	404	773	2	387
	Through-Right		0			0	
	Right	134	1	63	113	1	66
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	240	2	132	117	2	64
	Left-Through		0			0	
	Through	1621	2	**811**	1144	2	**572**
	Through-Right		0			0	
	Right	32	1	0	51	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	176	1	97	191	1	105
	Left-Through		1			1	
	Through	79	0	**133**	66	0	**134**
	Through-Right		1			1	
	Right	54	0	54	68	0	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	259	1	142	172	1	95
	Left-Through		1			1	
	Through	35	0	**228**	39	0	**168**
	Through-Right		1			1	
	Right	193	0	193	129	0	129
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	840		*North-South:*	633
			East-West:	361		*East-West:*	302
			SUM:	1201		*SUM:*	935
VOLUME/CAPACITY *(V/C)* RATIO:				0.873			0.680
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.773**			**0.580**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Figueroa St **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 3	SB --	0	NB -- 3	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	91	1	**91**	119	1	119
	Left-Through		0			0	
	Through	681	2	341	583	2	**292**
	Through-Right		0			0	
	Right	124	1	0	153	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	322	1	322	308	1	**308**
	Left-Through		0			0	
	Through	1390	2	**695**	828	2	414
	Through-Right		0			0	
	Right	404	1	282	412	1	275
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	244	1	**244**	275	1	**275**
	Left-Through		0			0	
	Through	1059	2	414	1244	2	465
	Through-Right		1			1	
	Right	183	0	183	152	0	152
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	268	1	268	200	1	200
	Left-Through		0			0	
	Through	1372	2	**517**	1216	2	**482**
	Through-Right		1			1	
	Right	178	0	178	230	0	230
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	786		*North-South:*	600
			East-West:	761		*East-West:*	757
			SUM:	1547		*SUM:*	1357
VOLUME/CAPACITY *(V/C)* RATIO:				1.125			0.987
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.025**			**0.887**
LEVEL OF SERVICE (LOS):				**F**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Lucas Museum of Narrative Art		
15	North-South Street:	Flower St	East-West Street:	Exposition / I-110 SB Off-ramp
	Scenario:	Future with Project Conditions		
	Count Date:		Analyst: GTC	Date:

	PM PEAK HOUR			MD PEAK HOUR		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0
	EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	1	0	0	1	0
	Left-Through		1			1	
	Through	0	1	**0**	0	1	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1299	4	**325**	842	4	**211**
	Through-Right		0			0	
	Right	213	1	213	91	1	91
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	66	0	66	29	0	29
	Left-Through		1			1	
	Through	598	1	**332**	326	1	**178**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	325		*North-South:*	211
			East-West:	332		*East-West:*	178
			SUM:	657		*SUM:*	389
VOLUME/CAPACITY *(V/C)* RATIO:				0.438			0.259
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.338**			**0.159**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 16

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Flower St East-West Street: 37th St / I-110 SB On-ramp
Scenario: Future with Project Conditions
Count Date: Analyst: GTC Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0 SB --		0	NB -- 0 SB --		0
		EB -- 0 WB --		0	EB -- 0 WB --		0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	316	1	**316**	228	1	**228**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	830	2	**457**	720	2	**396**
	Left-Through		0			0	
	Through	904	2	452	377	2	189
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	793	4	**175**	785	4	**167**
	Through-Right		1			1	
	Right	84	0	84	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	773		*North-South:*	624
			East-West:	175		*East-West:*	167
			SUM:	948		*SUM:*	791
VOLUME/CAPACITY *(V/C)* RATIO:				0.665			0.555
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.565**			**0.455**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
17	

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hope / I-110 NB Off-ram **East-West Street:** 37th St
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	828	2	**367**	526	2	**202**
	Through-Right		1			1	
	Right	272	0	272	80	0	80
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	549	2	**302**	464	2	**255**
	Left-Through		0			0	
	Through	356	2	178	117	2	59
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	178	1	**178**	125	1	**125**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	367		*North-South:*	202
			East-West:	480		*East-West:*	380
			SUM:	847		*SUM:*	582
VOLUME/CAPACITY *(V/C)* RATIO:				0.594			0.408
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.494**			**0.308**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 18

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: I-110 HOV Ramps **East-West Street:** 39th St
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	291	0	291	212	0	212
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	168	0	**459**	21	0	**233**
	Left-Through-Right		0			0	
	Left-Right		1			1	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	166	2	83	102	2	51
	Through-Right		0			0	
	Right	419	1	**419**	235	1	**235**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	345	1	**345**	66	1	**66**
	Left-Through		0			0	
	Through	371	2	186	194	2	97
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	459		*North-South:*	233
			East-West:	764		*East-West:*	301
			SUM:	1223		*SUM:*	534
VOLUME/CAPACITY *(V/C)* RATIO:				0.815			0.356
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.715**			**0.256**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #: 19

PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: I-110 SB Ramps East-West Street: Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: Analyst: GTC Date:

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --		0	NB -- 0	SB --	0
	EB -- 0	WB --		0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	292	1	292	259	1	259
	Left-Through		0			0	
	Through	62	0	**345**	46	0	**266**
	Through-Right		0			0	
	Right	628	1	0	485	1	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1073	2	**493**	1105	2	553
	Through-Right		1			1	
	Right	407	0	407	596	0	**596**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	415	1	**415**	219	1	**219**
	Left-Through		0			0	
	Through	1265	3	422	1189	3	396
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	345		*North-South:*	266
			East-West:	908		*East-West:*	815
			SUM:	1253		*SUM:*	1081
VOLUME/CAPACITY *(V/C)* RATIO:				0.835			0.721
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.735**			**0.621**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
20	

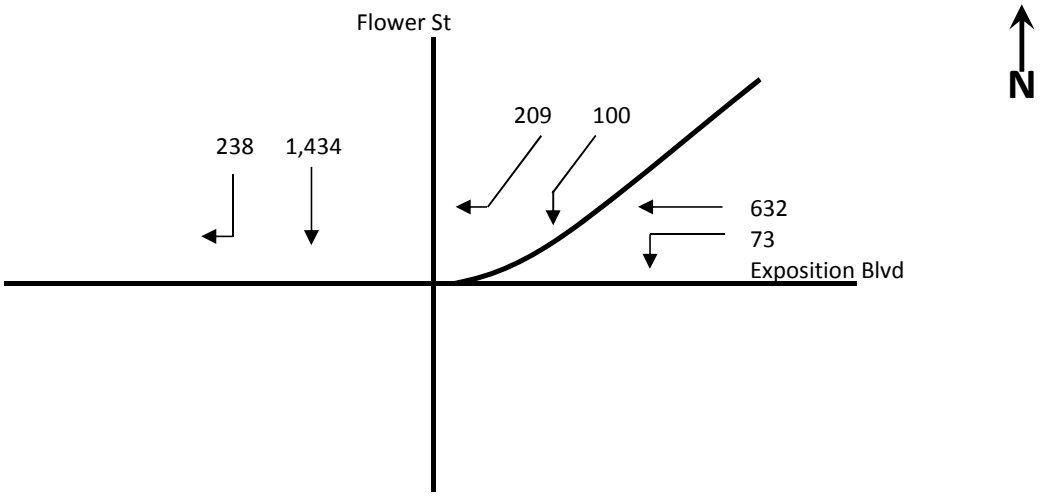
PROJECT TITLE: Lucas Museum of Narrative Art
North-South Street: Hill / I-110 NB Ramps **East-West Street:** Martin Luther King Jr. Blvd
Scenario: Future with Project Conditions
Count Date: **Analyst:** GTC **Date:**

		PM PEAK HOUR			MD PEAK HOUR		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	389	1	389	490	1	**396**
	Left-Through		0			0	
	Through	213	0	**531**	111	0	396
	Through-Right		0			0	
	Right	318	0	0	190	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	100	1	100	54	1	**54**
	Left-Through		0			0	
	Through	6	1	6	7	1	7
	Through-Right		0			0	
	Right	390	1	**344**	6	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	92	1	92	75	1	75
	Left-Through		0			0	
	Through	1109	2	**433**	884	2	**430**
	Through-Right		1			1	
	Right	189	0	189	406	0	406
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	50	1	**50**	115	1	**115**
	Left-Through		0			0	
	Through	896	2	320	886	2	443
	Through-Right		1			0	
	Right	65	0	65	47	1	20
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	875		*North-South:*	450
			East-West:	483		*East-West:*	545
			SUM:	1358		*SUM:*	995
VOLUME/CAPACITY *(V/C)* RATIO:				0.988			0.724
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.888**			**0.624**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Future with Project Conditions - PM Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{1,434}{4} = 359$ or

Southbound Rights: 238

Critical Volume #1 (CV1): **359**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{209 + 100}{3} = \frac{309}{3} = 103$$

Critical Volume #2 (CV2): **103**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{632 + 73}{2} = \frac{705}{2} = 353$$

Critical Volume #3 (CV3): **353**

Critical Volume: 359 + 103 + 353 = **815**

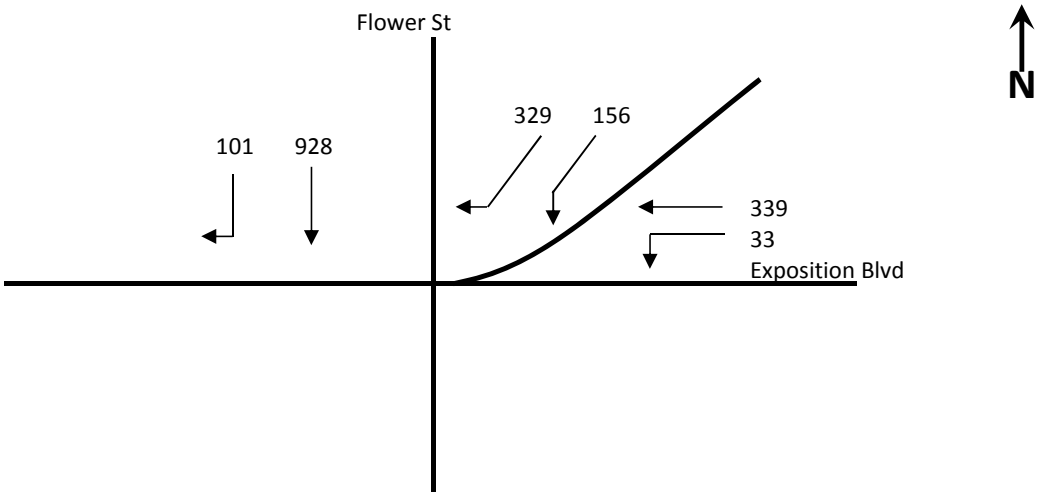
Intersection V/C: $\frac{815}{1425} =$ **0.572**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.472** **Intersection LOS:** **A**

Intersection 15 - Flower Street/I-110 SB Off-Ramp & W Exposition Boulevard

Future with Project Conditions - MD Peak Hour



1) Critical volume calculation for southbound traffic on Flower Street

Southbound Throughs: $\frac{928}{4} = 232$ or

Southbound Rights: 101

Critical Volume #1 (CV1): **232**

2) Critical volume calculation for southwestbound traffic on I-110 SB Off-Ramp

Southwestbound Rights + Lefts:

$$\frac{329 + 156}{3} = \frac{485}{3} = 162$$

Critical Volume #2 (CV2): **162**

3) Critical volume calculation for westbound traffic on Exposition Boulevard

Westbound Lefts + Throughs:

$$\frac{339 + 33}{2} = \frac{372}{2} = 186$$

Critical Volume #3 (CV3): **186**

Critical Volume: 232 + 162 + 186 = **580**

Intersection V/C: $\frac{580}{1425} =$ **0.407**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: **0.307** **Intersection LOS:** **A**

Appendix D

Caltrans Level of Service Worksheets

Existing Conditions (Year 2016)

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,305	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}589}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{28.9}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,910	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}286} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{23.4} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,979	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}736}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.6}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,941	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}728} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{31.4} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,726	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}557}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{28.3}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,621	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}529} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{27.8} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,292	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}711}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.1}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,990	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}901} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.7} \text{ pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,441	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}752} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.9} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,738	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}466} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{26.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,490	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}765} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{32.1} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,758	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = ____ \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}905} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.8} \text{ pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,865	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}014}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{18.4}\ \text{pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,525	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations		Speed Adjustment Calculations		
Driver Population Factor (f_p):	1.00	Lane Width (f_{LW}):		mi/h
Passenger Car Equivalents for Trucks & Buses (E_T):	1.5	Lateral Clearance (f_{LC}):		mi/h
for RVs (E_R):	1.2	Total Ramp Density (TRD):		ramps/mi
Heavy Vehicle Factor (f_{HV}): $\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)}$ =	0.978	Free-Flow Speed: $75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ =		mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p): $\frac{V}{PHF * N * f_{HV} * f_p}$ = **1,917** pc/h/ln

Density (D): $\frac{v_p}{S}$ = **35.1** pc/mi/ln

Speed (S): **54.7** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,673	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{910} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{16.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **B**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,708	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{929} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{16.9} \text{ pc/mi/ln}$$

Level of Service (LOS): **B**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	31.3
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1440	604	0	0	0	246	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1440	604	0	0	0	246	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	360	151	0	0	0	62	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1440	604	0	0	0	246	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	20	20	0	0	0	50	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		22	19	37
g / C, Green / Cycle		0.24	0.21	0.42
(v / s)_i Volume / Saturation Flow Rate		0.17	0.18	0.05
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2054	723	2102
d1, Uniform Delay [s]		31.15	34.14	16.26
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.44	2.64	0.11
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.70	0.84	0.12
d, Delay for Lane Group [s/veh]		31.60	36.78	16.37
Lane Group LOS		C	D	B
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		5.63	6.46	1.03
50th-Percentile Queue Length [ft]		140.80	161.44	25.85
95th-Percentile Queue Length [veh]		9.52	10.63	1.86
95th-Percentile Queue Length [ft]		238.10	265.63	46.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	31.60	36.78	0.00	0.00	0.00	16.37	0.00
Movement LOS						C	D				B	
d_A, Approach Delay [s/veh]	0.00			31.60			36.78			16.37		
Approach LOS	A			C			D			B		
d_I, Intersection Delay [s/veh]	31.33											
Intersection LOS	C											
Intersection V/C	0.455											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	24.8
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.451

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	123	784	766	0	0	645	81	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	123	784	766	0	0	645	81	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	31	196	192	0	0	161	20	0	0	0
Total Analysis Volume [veh/h]	0	0	123	784	766	0	0	645	81	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	15	24	39	0	0	51	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	43	23	71	11	11	
g / C, Green / Cycle	0.48	0.26	0.78	0.13	0.13	
(v / s)_i Volume / Saturation Flow Rate	0.08	0.23	0.22	0.09	0.09	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1696	
c, Capacity [veh/h]	760	894	2780	860	215	
d1, Uniform Delay [s]	13.18	31.91	2.68	37.48	37.47	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.10	2.94	0.25	0.94	3.64	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

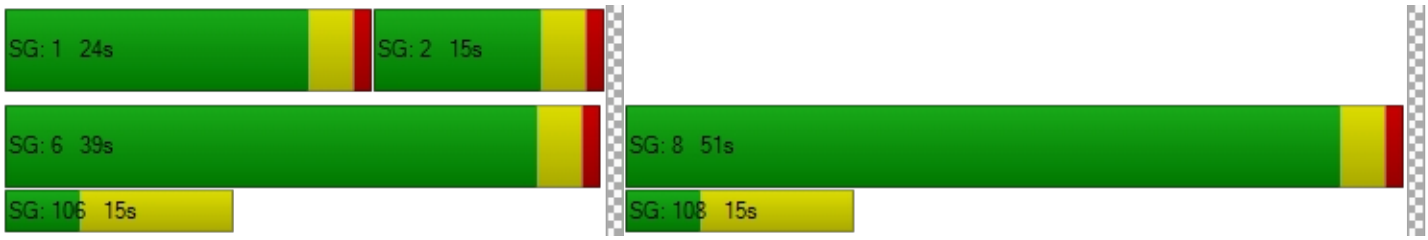
X, volume / capacity	0.16	0.88	0.28	0.68	0.67	
d, Delay for Lane Group [s/veh]	13.28	34.85	2.92	38.41	41.11	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	1.37	8.29	1.32	3.06	3.22	
50th-Percentile Queue Length [ft]	34.25	207.18	33.06	76.57	80.60	
95th-Percentile Queue Length [veh]	2.47	13.01	2.38	5.51	5.80	
95th-Percentile Queue Length [ft]	61.65	325.21	59.50	137.82	145.07	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	13.28	34.85	2.92	0.00	0.00	38.68	41.11	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	13.28			19.07			38.95			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	24.79											
Intersection LOS	C											
Intersection V/C	0.451											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.341

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	736	261	0	0	0	280	342	0	0	0	171
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	736	261	0	0	0	280	342	0	0	0	171
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	184	65	0	0	0	70	86	0	0	0	43
Total Analysis Volume [veh/h]	0	736	261	0	0	0	280	342	0	0	0	171
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	68	68		14	14	14
g / C, Green / Cycle	0.75	0.75		0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.19	0.20		0.10	0.10	0.11
s, saturation flow rate [veh/h]	3547	1636		2741	3547	1583
c, Capacity [veh/h]	2680	1236		437	552	246
d1, Uniform Delay [s]	3.31	3.37		37.89	35.50	35.96
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	0.53		1.57	1.14	3.50
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.27		0.64	0.62	0.69
d, Delay for Lane Group [s/veh]	3.53	3.91		39.45	36.64	39.45
Lane Group LOS	A	A		D	D	D
Critical Lane Group	no	yes		no	no	yes
50th-Percentile Queue Length [veh]	1.41	1.54		3.03	3.53	3.73
50th-Percentile Queue Length [ft]	35.21	38.39		75.81	88.32	93.24
95th-Percentile Queue Length [veh]	2.53	2.76		5.46	6.36	6.71
95th-Percentile Queue Length [ft]	63.37	69.10		136.45	158.98	167.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.57	3.91	0.00	0.00	0.00	39.45	36.64	0.00	0.00	0.00	39.45
Movement LOS		A	A				D	D				D
d_A, Approach Delay [s/veh]	3.66			0.00			37.91		39.45			
Approach LOS	A			A			D		D			
d_I, Intersection Delay [s/veh]	18.98											
Intersection LOS	B											
Intersection V/C	0.341											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	14.8
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	188	161	160	259	332	357
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	161	160	259	332	357
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	40	40	65	83	89
Total Analysis Volume [veh/h]	188	161	160	259	332	357
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	56	0	34	23	0	34
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	61	61	61	61
g / C, Green / Cycle	0.23	0.68	0.68	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.21	0.05	0.16	0.27	0.10
s, saturation flow rate [veh/h]	1681	3547	1583	1221	3547
c, Capacity [veh/h]	390	2407	1075	856	2407
d1, Uniform Delay [s]	33.42	4.85	5.54	8.19	5.15
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.32	0.05	0.53	1.32	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.07	0.24	0.39	0.15
d, Delay for Lane Group [s/veh]	40.74	4.91	6.07	9.52	5.28
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	7.96	0.45	1.75	3.16	1.07
50th-Percentile Queue Length [ft]	199.10	11.23	43.83	78.88	26.64
95th-Percentile Queue Length [veh]	12.59	0.81	3.16	5.68	1.92
95th-Percentile Queue Length [ft]	314.81	20.22	78.89	141.98	47.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.74	40.74	4.91	6.07	9.52	5.28
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	40.74		5.63		7.32	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	14.84					
Intersection LOS	B					
Intersection V/C	0.526					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	139.1
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.210

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	278	60	554	0	962	303	397	1134	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	278	60	554	0	962	303	397	1134	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	15	139	0	241	76	99	284	0
Total Analysis Volume [veh/h]	0	0	0	278	60	554	0	962	303	397	1134	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	19	0	0	71	0	0	71	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		52	52	52	30	30	30	30
g / C, Green / Cycle		0.58	0.58	0.58	0.33	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate		0.16	0.19	0.19	0.24	0.26	0.91	0.22
s, saturation flow rate [veh/h]		1774	1631	1583	3547	1653	436	5074
c, Capacity [veh/h]		1024	941	914	1184	552	120	1695
d1, Uniform Delay [s]		9.53	9.91	9.96	26.14	26.75	43.56	25.66
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.65	0.93	0.99	0.81	2.23	1062.31	0.46
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.27	0.33	0.33	0.71	0.76	3.31	0.67
d, Delay for Lane Group [s/veh]		10.19	10.84	10.95	26.95	28.98	1105.88	26.12
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		2.71	3.16	3.15	7.74	8.13	38.00	6.77
50th-Percentile Queue Length [ft]		67.87	79.06	78.85	193.60	203.25	949.96	169.25
95th-Percentile Queue Length [veh]		4.89	5.69	5.68	12.31	12.81	65.80	11.04
95th-Percentile Queue Length [ft]		122.17	142.30	141.92	307.70	320.16	1645.12	275.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	10.19	10.84	10.90	0.00	27.20	28.98	1105.88	26.12	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			10.67			27.62			306.11		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	139.13											
Intersection LOS	F											
Intersection V/C	1.210											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	47.6
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.944

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	300	205	303	85	6	375	88	1051	124	41	851	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	300	205	303	85	6	375	88	1051	124	41	851	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	75	51	76	21	2	94	22	263	31	10	213	16
Total Analysis Volume [veh/h]	300	205	303	85	6	375	88	1051	124	41	851	62
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	26	0	0	24	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	22	22	22	22	22	22	29	29	29
g / C, Green / Cycle	0.30	0.30	0.24	0.24	0.24	0.24	0.24	0.24	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.17	0.30	0.05	0.00	0.24	0.14	0.22	0.22	0.06	0.17	0.17
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	609	3547	1764	712	3547	1799
c, Capacity [veh/h]	531	505	432	453	385	130	861	428	248	1150	583
d1, Uniform Delay [s]	26.63	31.58	27.12	25.90	33.83	42.94	33.20	33.20	23.37	24.83	24.85
k, delay calibration	0.13	0.45	0.11	0.11	0.41	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.12	39.60	0.22	0.01	35.68	24.57	15.44	26.19	1.44	1.72	3.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

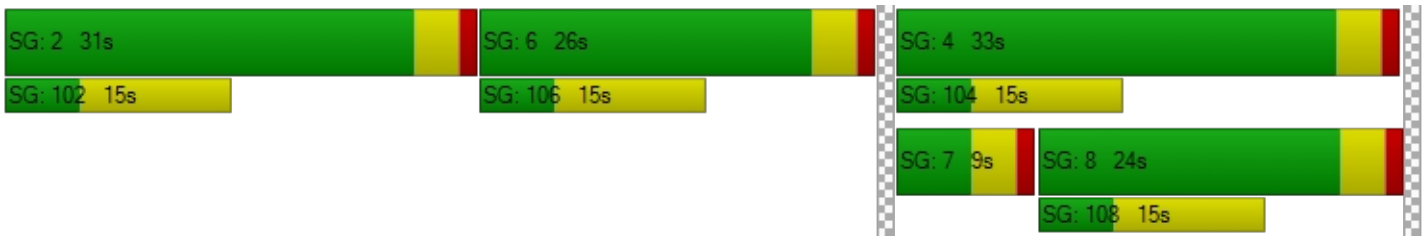
X, volume / capacity	0.56	1.01	0.20	0.01	0.97	0.68	0.91	0.91	0.17	0.53	0.53
d, Delay for Lane Group [s/veh]	27.75	71.19	27.34	25.92	69.51	67.51	48.64	59.40	24.81	26.56	28.26
Lane Group LOS	C	F	C	C	E	E	D	E	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	5.45	16.10	1.46	0.10	11.70	2.84	9.94	11.18	0.69	5.40	5.77
50th-Percentile Queue Length [ft]	136.27	402.59	36.46	2.45	292.48	70.95	248.53	279.43	17.21	134.98	144.37
95th-Percentile Queue Length [veh]	9.28	22.78	2.63	0.18	17.31	5.11	15.11	16.66	1.24	9.21	9.72
95th-Percentile Queue Length [ft]	232.00	569.41	65.63	4.41	432.71	127.71	377.80	416.50	30.98	230.25	242.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.75	71.19	71.19	27.34	25.92	69.51	67.51	51.37	59.40	24.81	27.05	28.26
Movement LOS	C	E	E	C	C	E	E	D	E	C	C	C
d_A, Approach Delay [s/veh]	55.06			61.26			53.28			27.03		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	47.58											
Intersection LOS	D											
Intersection V/C	0.944											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.306

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	886	310	0	0	0	359	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	886	310	0	0	0	359	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	222	78	0	0	0	90	0
Total Analysis Volume [veh/h]	0	0	0	0	0	886	310	0	0	0	359	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	35	30	0	0	0	25	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		14	11	54
g / C, Green / Cycle		0.15	0.12	0.60
(v / s)_i Volume / Saturation Flow Rate		0.10	0.09	0.07
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1293	413	3015
d1, Uniform Delay [s]		36.10	38.35	7.99
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.65	2.78	0.08
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.69	0.75	0.12
d, Delay for Lane Group [s/veh]		36.76	41.13	8.07
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		3.67	3.42	0.96
50th-Percentile Queue Length [ft]		91.80	85.52	23.88
95th-Percentile Queue Length [veh]		6.61	6.16	1.72
95th-Percentile Queue Length [ft]		165.25	153.93	42.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	36.76	41.13	0.00	0.00	0.00	8.07	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			36.76			41.13			8.07		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	31.00											
Intersection LOS	C											
Intersection V/C	0.306											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	30.7
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	90	681	267	0	0	614	49	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	90	681	267	0	0	614	49	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	23	170	67	0	0	154	12	0	0	0
Total Analysis Volume [veh/h]	0	0	90	681	267	0	0	614	49	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	15	22	37	0	0	53	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	47	21	71	11	11	
g / C, Green / Cycle	0.52	0.23	0.79	0.12	0.12	
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.08	0.08	0.08	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1749	
c, Capacity [veh/h]	821	794	2814	796	206	
d1, Uniform Delay [s]	11.05	33.19	2.08	37.97	37.87	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.06	2.84	0.07	0.97	3.35	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

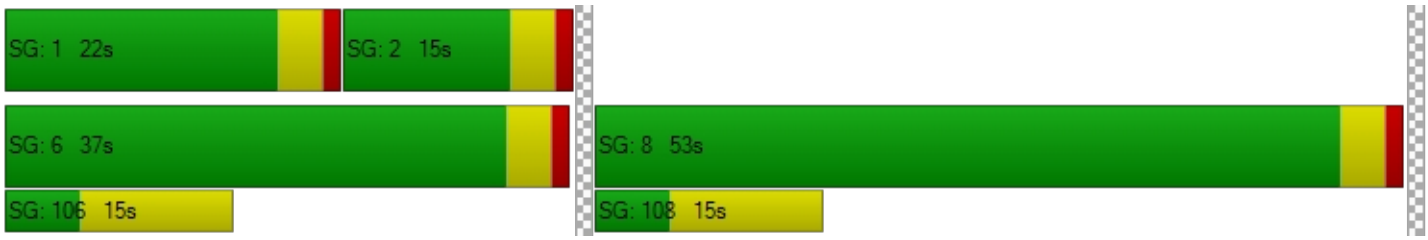
X, volume / capacity	0.11	0.86	0.09	0.67	0.64	
d, Delay for Lane Group [s/veh]	11.11	36.03	2.14	38.94	41.22	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	0.89	7.25	0.36	2.81	2.94	
50th-Percentile Queue Length [ft]	22.16	181.22	8.88	70.27	73.53	
95th-Percentile Queue Length [veh]	1.60	11.66	0.64	5.06	5.29	
95th-Percentile Queue Length [ft]	39.89	291.60	15.98	126.49	132.35	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	11.11	36.03	2.14	0.00	0.00	39.25	41.22	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	11.11			26.49			39.40			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	30.71											
Intersection LOS	C											
Intersection V/C	0.384											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.200

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	453	77	0	0	0	220	112	0	0	0	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	453	77	0	0	0	220	112	0	0	0	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	113	19	0	0	0	55	28	0	0	0	30
Total Analysis Volume [veh/h]	0	453	77	0	0	0	220	112	0	0	0	120
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	70	70		12	12	12
g / C, Green / Cycle	0.78	0.78		0.13	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10		0.08	0.03	0.08
s, saturation flow rate [veh/h]	3547	1730		2741	3547	1583
c, Capacity [veh/h]	2774	1353		367	458	204
d1, Uniform Delay [s]	2.37	2.38		39.21	35.24	36.92
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.20		1.57	0.27	2.67
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.13		0.60	0.24	0.59
d, Delay for Lane Group [s/veh]	2.47	2.58		40.78	35.51	39.59
Lane Group LOS	A	A		D	D	D
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	0.54	0.58		2.41	1.11	2.60
50th-Percentile Queue Length [ft]	13.50	14.50		60.29	27.74	65.09
95th-Percentile Queue Length [veh]	0.97	1.04		4.34	2.00	4.69
95th-Percentile Queue Length [ft]	24.30	26.10		108.52	49.93	117.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	2.49	2.58	0.00	0.00	0.00	40.78	35.51	0.00	0.00	0.00	39.59
Movement LOS		A	A				D	D				D
d_A, Approach Delay [s/veh]	2.51			0.00			39.01		39.59			
Approach LOS	A			A			D		D			
d_I, Intersection Delay [s/veh]	19.38											
Intersection LOS	B											
Intersection V/C	0.200											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.153

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	107	20	98	105	63	186
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	107	20	98	105	63	186
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	5	25	26	16	47
Total Analysis Volume [veh/h]	107	20	98	105	63	186
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	71	0	19	23	0	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	74	74	74	74
g / C, Green / Cycle	0.09	0.82	0.82	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate	0.07	0.03	0.07	0.05	0.05
s, saturation flow rate [veh/h]	1741	3547	1583	1292	3547
c, Capacity [veh/h]	162	2902	1295	1093	2902
d1, Uniform Delay [s]	39.90	1.53	1.59	2.21	1.57
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.10	0.02	0.12	0.10	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.03	0.08	0.06	0.06
d, Delay for Lane Group [s/veh]	48.00	1.55	1.72	2.31	1.61
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	3.07	0.09	0.23	0.20	0.18
50th-Percentile Queue Length [ft]	76.86	2.31	5.76	4.94	4.50
95th-Percentile Queue Length [veh]	5.53	0.17	0.41	0.36	0.32
95th-Percentile Queue Length [ft]	138.35	4.15	10.37	8.88	8.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.00	48.00	1.55	1.72	2.31	1.61
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	48.00		1.64		1.79	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	11.87					
Intersection LOS	B					
Intersection V/C	0.153					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	54.6
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	246	44	412	0	1012	496	209	1060	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	246	44	412	0	1012	496	209	1060	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	62	11	103	0	253	124	52	265	0
Total Analysis Volume [veh/h]	0	0	0	246	44	412	0	1012	496	209	1060	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		48	48	48	33	33	33	33
g / C, Green / Cycle		0.54	0.54	0.54	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate		0.14	0.14	0.14	0.28	0.32	0.60	0.21
s, saturation flow rate [veh/h]		1774	1630	1583	3547	1586	346	5074
c, Capacity [veh/h]		957	879	854	1317	589	101	1885
d1, Uniform Delay [s]		11.06	11.09	11.10	24.77	25.98	44.36	22.43
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.65	0.73	0.75	0.94	3.63	514.31	0.26
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.26	0.26	0.26	0.76	0.85	2.07	0.56
d, Delay for Lane Group [s/veh]		11.71	11.82	11.86	25.71	29.61	558.67	22.70
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		2.64	2.50	2.44	9.15	10.01	16.65	5.76
50th-Percentile Queue Length [ft]		65.93	62.42	61.12	228.82	250.34	416.16	144.09
95th-Percentile Queue Length [veh]		4.75	4.49	4.40	14.11	15.20	29.96	9.70
95th-Percentile Queue Length [ft]		118.67	112.35	110.02	352.86	380.09	749.08	242.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.71	11.82	11.84	0.00	25.74	29.61	558.67	22.70	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			11.79			27.01			110.97		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	54.56											
Intersection LOS	D											
Intersection V/C	0.820											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	22.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	394	107	180	42	7	6	72	838	350	105	844	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	394	107	180	42	7	6	72	838	350	105	844	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	27	45	11	2	2	18	210	88	26	211	11
Total Analysis Volume [veh/h]	394	107	180	42	7	6	72	838	350	105	844	45
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	1	1	1	47	47	47	56	56	56
g / C, Green / Cycle	0.23	0.23	0.02	0.02	0.02	0.52	0.52	0.52	0.62	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20	0.02	0.00	0.00	0.12	0.23	0.23	0.17	0.17	0.17
s, saturation flow rate [veh/h]	1774	1690	1774	1863	1583	623	3547	1596	626	3547	1815
c, Capacity [veh/h]	410	390	29	30	26	341	1856	835	436	2198	1125
d1, Uniform Delay [s]	33.13	33.19	44.32	43.77	43.77	17.15	13.31	13.32	8.25	7.81	7.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.95	5.41	247.12	3.89	4.62	1.40	0.76	1.70	1.30	0.30	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.85	1.47	0.23	0.24	0.21	0.44	0.44	0.24	0.27	0.27
d, Delay for Lane Group [s/veh]	38.09	38.60	291.44	47.66	48.39	18.55	14.08	15.02	9.55	8.10	8.39
Lane Group LOS	D	D	F	D	D	B	B	B	A	A	A
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	7.63	7.38	2.60	0.19	0.16	1.08	5.00	4.73	0.90	2.42	2.57
50th-Percentile Queue Length [ft]	190.85	184.59	64.88	4.63	4.09	26.95	124.91	118.21	22.39	60.48	64.32
95th-Percentile Queue Length [veh]	12.17	11.84	4.67	0.33	0.29	1.94	8.66	8.29	1.61	4.35	4.63
95th-Percentile Queue Length [ft]	304.14	295.99	116.79	8.33	7.36	48.52	216.56	207.37	40.31	108.86	115.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.15	38.60	38.60	291.44	47.66	48.39	18.55	14.10	15.02	9.55	8.19	8.39
Movement LOS	D	D	D	F	D	D	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	38.34			233.90			14.61			8.34		
Approach LOS	D			F			B			A		
d_I, Intersection Delay [s/veh]	21.97											
Intersection LOS	C											
Intersection V/C	0.583											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Existing with Project Conditions (Year 2016)

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,367	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations		Speed Adjustment Calculations		
Driver Population Factor (f_p):	1.00	Lane Width (f_{LW}):		mi/h
Passenger Car Equivalents for Trucks & Buses (E_T):	1.5	Lateral Clearance (f_{LC}):		mi/h
for RVs (E_R):	1.2	Total Ramp Density (TRD):		ramps/mi
Heavy Vehicle Factor (f_{HV}): $\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)}$ =	0.978	Free-Flow Speed: $75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ =		mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p): $\frac{V}{PHF * N * f_{HV} * f_p}$ = **1,603** pc/h/ln

Density (D): $\frac{v_p}{S}$ = **29.1** pc/mi/ln

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,941	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}292} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{23.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,072	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}756} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.9} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,003	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations		Speed Adjustment Calculations		
Driver Population Factor (f_p):	1.00	Lane Width (f_{LW}):		mi/h
Passenger Car Equivalents for Trucks & Buses (E_T):	1.5	Lateral Clearance (f_{LC}):		mi/h
for RVs (E_R):	1.2	Total Ramp Density (TRD):		ramps/mi
Heavy Vehicle Factor (f_{HV}): $\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)}$ =	0.978	Free-Flow Speed: $75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ =		mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p): $\frac{V}{PHF * N * f_{HV} * f_p}$ =	**1,741**	pc/h/ln	Density (D): $\frac{v_p}{S}$ =	**31.7**	pc/mi/ln
Speed (S):	**55.0**	mi/h	Level of Service (LOS):	**D**	

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,730	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}558} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{28.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	5,621	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}529} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{27.8} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,300	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}713} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.1} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,990	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}901} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.7} \text{ pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,453	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}755}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.9}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,762	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}471} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$D = \frac{v_p}{S} = \mathbf{26.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,514	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}771}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{32.2}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,795	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}913} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{35.0} \text{ pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,877	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}021}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{18.6}\ \text{pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,549	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}930} \text{ pc/h/ln}$$

Speed (S): **54.6** mi/h

Density (D): $\frac{v_p}{S}$ = **35.4** pc/mi/ln

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,697	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{923} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{16.8} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **B**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,745	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{949} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{17.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **B**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	31.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1440	608	0	0	0	269	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1440	608	0	0	0	269	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	360	152	0	0	0	67	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1440	608	0	0	0	269	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	20	20	0	0	0	50	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		22	19	37
g / C, Green / Cycle		0.24	0.21	0.41
(v / s)_i Volume / Saturation Flow Rate		0.17	0.18	0.05
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2054	727	2096
d1, Uniform Delay [s]		31.15	34.09	16.40
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.44	2.64	0.13
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.70	0.84	0.13
d, Delay for Lane Group [s/veh]		31.60	36.73	16.53
Lane Group LOS		C	D	B
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		5.63	6.50	1.14
50th-Percentile Queue Length [ft]		140.80	162.45	28.48
95th-Percentile Queue Length [veh]		9.52	10.68	2.05
95th-Percentile Queue Length [ft]		238.10	266.97	51.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	31.60	36.73	0.00	0.00	0.00	16.53	0.00
Movement LOS						C	D				B	
d_A, Approach Delay [s/veh]	0.00			31.60			36.73			16.53		
Approach LOS	A			C			D			B		
d_I, Intersection Delay [s/veh]	31.19											
Intersection LOS	C											
Intersection V/C	0.461											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	25.1
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	123	784	766	0	0	715	81	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	123	784	766	0	0	715	81	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	31	196	192	0	0	179	20	0	0	0
Total Analysis Volume [veh/h]	0	0	123	784	766	0	0	715	81	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	15	23	38	0	0	52	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	42	23	70	12	12	
g / C, Green / Cycle	0.47	0.26	0.77	0.14	0.14	
(v / s)_i Volume / Saturation Flow Rate	0.08	0.23	0.22	0.09	0.09	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1709	
c, Capacity [veh/h]	744	894	2744	929	235	
d1, Uniform Delay [s]	13.71	31.91	2.94	36.94	36.90	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.10	2.94	0.25	0.91	3.41	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

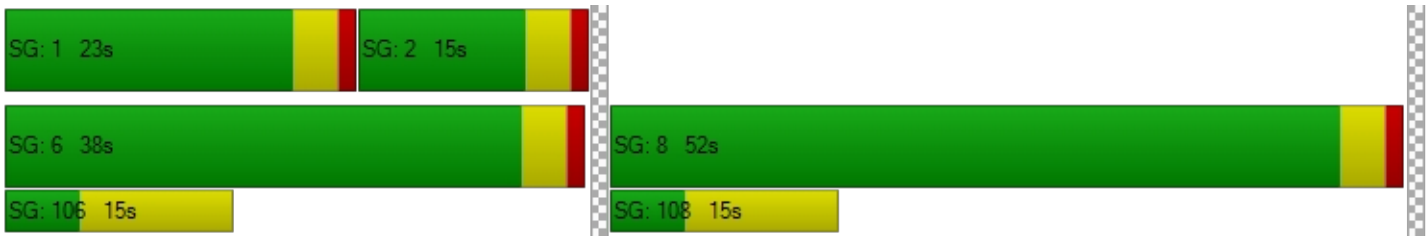
X, volume / capacity	0.17	0.88	0.28	0.69	0.68	
d, Delay for Lane Group [s/veh]	13.81	34.85	3.19	37.84	40.31	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	1.40	8.29	1.45	3.34	3.50	
50th-Percentile Queue Length [ft]	35.12	207.18	36.24	83.50	87.51	
95th-Percentile Queue Length [veh]	2.53	13.01	2.61	6.01	6.30	
95th-Percentile Queue Length [ft]	63.21	325.21	65.23	150.30	157.52	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	13.81	34.85	3.19	0.00	0.00	38.11	40.31	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	13.81			19.20			38.34			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	25.10											
Intersection LOS	C											
Intersection V/C	0.461											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.361

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	740	261	0	0	0	342	342	0	0	0	171
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	740	261	0	0	0	342	342	0	0	0	171
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	185	65	0	0	0	86	86	0	0	0	43
Total Analysis Volume [veh/h]	0	740	261	0	0	0	342	342	0	0	0	171
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	66	66		16	16	16
g / C, Green / Cycle	0.73	0.73		0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.19	0.20		0.12	0.10	0.11
s, saturation flow rate [veh/h]	3547	1637		2741	3547	1583
c, Capacity [veh/h]	2597	1199		502	634	283
d1, Uniform Delay [s]	3.97	4.05		36.79	33.57	34.00
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.58		1.64	0.72	2.07
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.28		0.68	0.54	0.60
d, Delay for Lane Group [s/veh]	4.21	4.63		38.43	34.28	36.08
Lane Group LOS	A	A		D	C	D
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	1.65	1.79		3.68	3.40	3.54
50th-Percentile Queue Length [ft]	41.28	44.70		92.07	85.04	88.62
95th-Percentile Queue Length [veh]	2.97	3.22		6.63	6.12	6.38
95th-Percentile Queue Length [ft]	74.30	80.46		165.72	153.07	159.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.25	4.63	0.00	0.00	0.00	38.43	34.28	0.00	0.00	0.00	36.08
Movement LOS		A	A				D	C				D
d_A, Approach Delay [s/veh]	4.35			0.00			36.36			36.08		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	19.07											
Intersection LOS	B											
Intersection V/C	0.361											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.534

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	200	161	160	283	332	357
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	200	161	160	283	332	357
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	40	40	71	83	89
Total Analysis Volume [veh/h]	200	161	160	283	332	357
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	57	0	33	24	0	33
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	60	60	60	60
g / C, Green / Cycle	0.24	0.67	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.21	0.05	0.18	0.27	0.10
s, saturation flow rate [veh/h]	1684	3547	1583	1221	3547
c, Capacity [veh/h]	402	2383	1064	848	2383
d1, Uniform Delay [s]	33.11	5.06	5.89	8.51	5.37
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.29	0.05	0.61	1.36	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.07	0.27	0.39	0.15
d, Delay for Lane Group [s/veh]	40.40	5.12	6.50	9.87	5.51
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	8.22	0.46	2.01	3.24	1.10
50th-Percentile Queue Length [ft]	205.43	11.59	50.36	81.00	27.50
95th-Percentile Queue Length [veh]	12.92	0.83	3.63	5.83	1.98
95th-Percentile Queue Length [ft]	322.96	20.87	90.65	145.79	49.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.40	40.40	5.12	6.50	9.87	5.51
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	40.40		6.00		7.61	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	15.06					
Intersection LOS	B					
Intersection V/C	0.534					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	142.1
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.228

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	278	60	562	0	962	319	397	1142	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	278	60	562	0	962	319	397	1142	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	15	141	0	241	80	99	286	0
Total Analysis Volume [veh/h]	0	0	0	278	60	562	0	962	319	397	1142	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	19	0	0	71	0	0	71	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		52	52	52	30	30	30	30
g / C, Green / Cycle		0.58	0.58	0.58	0.33	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate		0.16	0.19	0.20	0.24	0.26	0.92	0.23
s, saturation flow rate [veh/h]		1774	1630	1583	3547	1646	430	5074
c, Capacity [veh/h]		1024	941	914	1184	550	117	1695
d1, Uniform Delay [s]		9.53	9.94	9.99	26.24	26.90	43.70	25.71
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.65	0.95	1.01	0.84	2.41	1098.36	0.47
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.27	0.33	0.34	0.72	0.78	3.39	0.67
d, Delay for Lane Group [s/veh]		10.19	10.89	11.00	27.09	29.31	1142.06	26.18
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		2.71	3.21	3.21	7.88	8.30	38.28	6.83
50th-Percentile Queue Length [ft]		67.87	80.31	80.19	196.92	207.51	957.01	170.82
95th-Percentile Queue Length [veh]		4.89	5.78	5.77	12.48	13.03	66.28	11.12
95th-Percentile Queue Length [ft]		122.17	144.56	144.35	311.99	325.64	1657.03	277.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	10.19	10.89	10.95	0.00	27.34	29.31	1142.06	26.18	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			10.71			27.83			314.03		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	142.09											
Intersection LOS	F											
Intersection V/C	1.228											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	47.6
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.944

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	308	205	303	85	6	375	88	1051	124	41	851	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	205	303	85	6	375	88	1051	124	41	851	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	77	51	76	21	2	94	22	263	31	10	213	16
Total Analysis Volume [veh/h]	308	205	303	85	6	375	88	1051	124	41	851	62
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	26	0	0	24	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	22	22	22	22	22	22	29	29	29
g / C, Green / Cycle	0.30	0.30	0.24	0.24	0.24	0.24	0.24	0.24	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.17	0.30	0.05	0.00	0.24	0.14	0.22	0.22	0.06	0.17	0.17
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	609	3547	1764	712	3547	1799
c, Capacity [veh/h]	531	505	432	453	385	130	861	428	248	1150	583
d1, Uniform Delay [s]	26.77	31.58	27.12	25.90	33.83	42.94	33.20	33.20	23.37	24.83	24.85
k, delay calibration	0.14	0.45	0.11	0.11	0.41	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.29	39.60	0.22	0.01	35.68	24.57	15.44	26.19	1.44	1.72	3.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

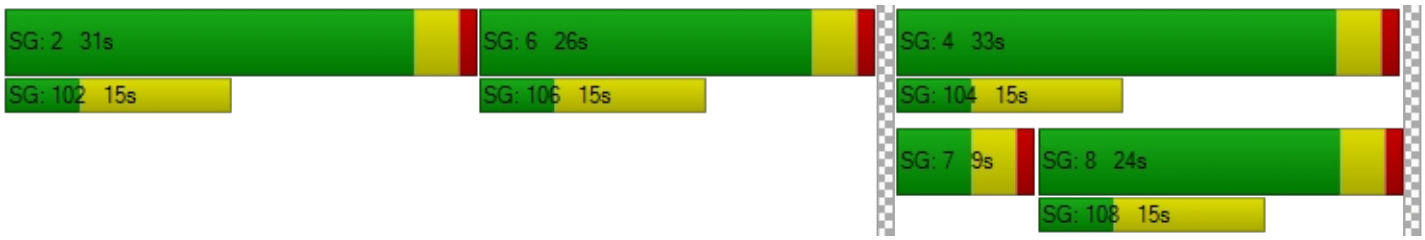
X, volume / capacity	0.58	1.01	0.20	0.01	0.97	0.68	0.91	0.91	0.17	0.53	0.53
d, Delay for Lane Group [s/veh]	28.06	71.19	27.34	25.92	69.51	67.51	48.64	59.40	24.81	26.56	28.26
Lane Group LOS	C	F	C	C	E	E	D	E	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	5.65	16.10	1.46	0.10	11.70	2.84	9.94	11.18	0.69	5.40	5.77
50th-Percentile Queue Length [ft]	141.17	402.59	36.46	2.45	292.48	70.95	248.53	279.43	17.21	134.98	144.37
95th-Percentile Queue Length [veh]	9.54	22.78	2.63	0.18	17.31	5.11	15.11	16.66	1.24	9.21	9.72
95th-Percentile Queue Length [ft]	238.60	569.41	65.63	4.41	432.71	127.71	377.80	416.50	30.98	230.25	242.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.06	71.19	71.19	27.34	25.92	69.51	67.51	51.37	59.40	24.81	27.05	28.26
Movement LOS	C	E	E	C	C	E	E	D	E	C	C	C
d_A, Approach Delay [s/veh]	54.91			61.26			53.28			27.03		
Approach LOS	D			E			D			C		
d_I, Intersection Delay [s/veh]	47.57											
Intersection LOS	D											
Intersection V/C	0.944											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	30.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.319

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	886	318	0	0	0	405	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	886	318	0	0	0	405	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	222	80	0	0	0	101	0
Total Analysis Volume [veh/h]	0	0	0	0	0	886	318	0	0	0	405	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	19	15	0	0	0	56	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		14	11	53
g / C, Green / Cycle		0.15	0.12	0.59
(v / s)_i Volume / Saturation Flow Rate		0.10	0.09	0.08
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1294	421	3001
d1, Uniform Delay [s]		36.10	38.23	8.17
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.65	2.77	0.09
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.68	0.75	0.13
d, Delay for Lane Group [s/veh]		36.75	41.00	8.26
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		3.67	3.51	1.10
50th-Percentile Queue Length [ft]		91.80	87.63	27.45
95th-Percentile Queue Length [veh]		6.61	6.31	1.98
95th-Percentile Queue Length [ft]		165.24	157.74	49.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	36.75	41.00	0.00	0.00	0.00	8.26	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			36.75			41.00			8.26		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	30.42											
Intersection LOS	C											
Intersection V/C	0.319											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	30.9
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	90	681	267	0	0	719	49	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	90	681	267	0	0	719	49	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	23	170	67	0	0	180	12	0	0	0
Total Analysis Volume [veh/h]	0	0	90	681	267	0	0	719	49	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	15	22	37	0	0	53	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	45	21	70	12	12	
g / C, Green / Cycle	0.50	0.23	0.78	0.13	0.13	
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.08	0.09	0.09	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1763	
c, Capacity [veh/h]	797	794	2759	900	235	
d1, Uniform Delay [s]	11.76	33.19	2.40	37.17	37.02	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.06	2.84	0.07	0.92	3.09	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

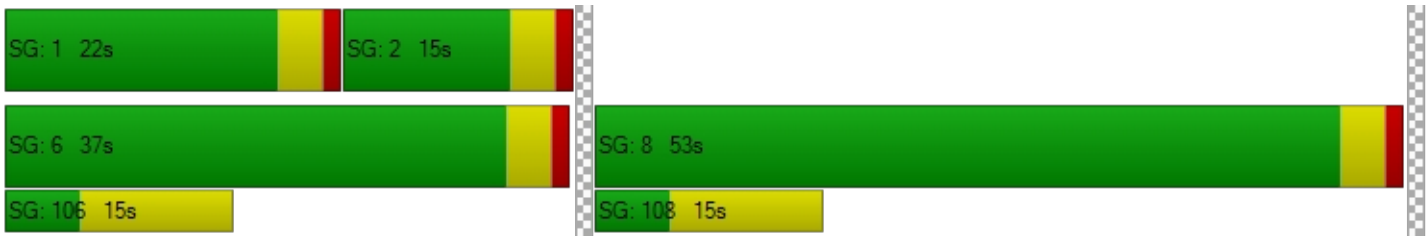
X, volume / capacity	0.11	0.86	0.10	0.68	0.65	
d, Delay for Lane Group [s/veh]	11.83	36.03	2.47	38.09	40.10	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	0.92	7.25	0.41	3.23	3.36	
50th-Percentile Queue Length [ft]	23.09	181.22	10.27	80.77	84.02	
95th-Percentile Queue Length [veh]	1.66	11.66	0.74	5.82	6.05	
95th-Percentile Queue Length [ft]	41.56	291.60	18.49	145.38	151.24	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	11.83	36.03	2.47	0.00	0.00	38.39	40.10	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	11.83			26.58			38.50			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	30.91											
Intersection LOS	C											
Intersection V/C	0.398											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.239

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	461	77	0	0	0	313	112	0	0	0	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	461	77	0	0	0	313	112	0	0	0	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	115	19	0	0	0	78	28	0	0	0	30
Total Analysis Volume [veh/h]	0	461	77	0	0	0	313	112	0	0	0	120
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	67	67		15	15	15
g / C, Green / Cycle	0.75	0.75		0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10		0.11	0.03	0.08
s, saturation flow rate [veh/h]	3547	1732		2741	3547	1583
c, Capacity [veh/h]	2652	1295		459	579	258
d1, Uniform Delay [s]	3.18	3.19		37.72	32.52	34.07
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.22		1.80	0.16	1.30
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.14		0.68	0.19	0.46
d, Delay for Lane Group [s/veh]	3.29	3.41		39.52	32.68	35.37
Lane Group LOS	A	A		D	C	D
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	0.72	0.77		3.41	1.06	2.43
50th-Percentile Queue Length [ft]	18.07	19.15		85.23	26.38	60.82
95th-Percentile Queue Length [veh]	1.30	1.38		6.14	1.90	4.38
95th-Percentile Queue Length [ft]	32.52	34.46		153.42	47.48	109.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.32	3.41	0.00	0.00	0.00	39.52	32.68	0.00	0.00	0.00	35.37
Movement LOS		A	A				D	C				D
d_A, Approach Delay [s/veh]	3.33			0.00			37.71		35.37			
Approach LOS	A			A			D		D			
d_I, Intersection Delay [s/veh]	20.37											
Intersection LOS	C											
Intersection V/C	0.239											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	12.6
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.193

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	131	20	98	142	63	186
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	20	98	142	63	186
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	5	25	36	16	47
Total Analysis Volume [veh/h]	131	20	98	142	63	186
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	57	0	33	54	0	33
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	72	72	72	72
g / C, Green / Cycle	0.11	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.09	0.03	0.09	0.05	0.05
s, saturation flow rate [veh/h]	1746	3547	1583	1292	3547
c, Capacity [veh/h]	189	2848	1271	1067	2848
d1, Uniform Delay [s]	39.11	1.79	1.92	2.63	1.84
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.61	0.02	0.18	0.11	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.03	0.11	0.06	0.07
d, Delay for Lane Group [s/veh]	46.72	1.82	2.10	2.74	1.89
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	3.60	0.11	0.38	0.23	0.22
50th-Percentile Queue Length [ft]	90.12	2.79	9.50	5.76	5.43
95th-Percentile Queue Length [veh]	6.49	0.20	0.68	0.41	0.39
95th-Percentile Queue Length [ft]	162.22	5.01	17.11	10.37	9.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.72	46.72	1.82	2.10	2.74	1.89
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	46.72		1.98		2.10	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	12.58					
Intersection LOS	B					
Intersection V/C	0.193					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	53.6
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	246	44	428	0	1012	521	209	1076	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	246	44	428	0	1012	521	209	1076	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	62	11	107	0	253	130	52	269	0
Total Analysis Volume [veh/h]	0	0	0	246	44	428	0	1012	521	209	1076	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		47	47	47	35	35	35	35
g / C, Green / Cycle		0.53	0.53	0.53	0.38	0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate		0.14	0.15	0.15	0.29	0.33	0.62	0.21
s, saturation flow rate [veh/h]		1774	1628	1583	3547	1583	338	5074
c, Capacity [veh/h]		935	858	835	1361	608	101	1947
d1, Uniform Delay [s]		11.66	11.77	11.78	23.86	25.42	44.35	21.64
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.69	0.81	0.83	0.82	3.64	514.66	0.25
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.26	0.28	0.28	0.74	0.86	2.07	0.55
d, Delay for Lane Group [s/veh]		12.34	12.57	12.61	24.69	29.06	559.01	21.89
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		2.73	2.69	2.64	9.00	10.31	16.65	5.73
50th-Percentile Queue Length [ft]		68.27	67.28	66.00	225.00	257.87	416.25	143.27
95th-Percentile Queue Length [veh]		4.92	4.84	4.75	13.92	15.58	29.97	9.66
95th-Percentile Queue Length [ft]		122.89	121.11	118.79	348.00	389.55	749.24	241.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	12.35	12.57	12.59	0.00	24.69	29.06	559.01	21.89	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			12.51			26.17			109.25		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	53.59											
Intersection LOS	D											
Intersection V/C	0.841											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	410	107	180	42	7	6	72	838	350	105	844	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	410	107	180	42	7	6	72	838	350	105	844	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	103	27	45	11	2	2	18	210	88	26	211	11
Total Analysis Volume [veh/h]	410	107	180	42	7	6	72	838	350	105	844	45
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	1	1	1	47	47	47	55	55	55
g / C, Green / Cycle	0.24	0.24	0.02	0.02	0.02	0.52	0.52	0.52	0.62	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20	0.02	0.00	0.00	0.12	0.23	0.23	0.17	0.17	0.17
s, saturation flow rate [veh/h]	1774	1692	1774	1863	1583	623	3547	1596	627	3547	1815
c, Capacity [veh/h]	418	399	29	30	26	338	1839	827	433	2181	1116
d1, Uniform Delay [s]	32.90	32.97	44.32	43.77	43.77	17.49	13.58	13.59	8.45	8.00	8.01
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.90	5.38	247.12	3.89	4.62	1.44	0.78	1.74	1.32	0.30	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.86	1.47	0.23	0.24	0.21	0.45	0.45	0.24	0.27	0.27
d, Delay for Lane Group [s/veh]	37.80	38.35	291.44	47.66	48.39	18.93	14.37	15.34	9.77	8.31	8.60
Lane Group LOS	D	D	F	D	D	B	B	B	A	A	A
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	7.78	7.55	2.60	0.19	0.16	1.09	5.06	4.79	0.91	2.46	2.62
50th-Percentile Queue Length [ft]	194.61	188.75	64.88	4.63	4.09	27.29	126.59	119.82	22.76	61.56	65.45
95th-Percentile Queue Length [veh]	12.36	12.06	4.67	0.33	0.29	1.97	8.75	8.38	1.64	4.43	4.71
95th-Percentile Queue Length [ft]	309.01	301.41	116.79	8.33	7.36	49.13	218.86	209.58	40.97	110.80	117.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.88	38.35	38.35	291.44	47.66	48.39	18.93	14.39	15.34	9.77	8.40	8.60
Movement LOS	D	D	D	F	D	D	B	B	B	A	A	A
d_A, Approach Delay [s/veh]	38.07			233.90			14.91			8.55		
Approach LOS	D			F			B			A		
d_I, Intersection Delay [s/veh]	22.19											
Intersection LOS	C											
Intersection V/C	0.589											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Future without Project Conditions (Year 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,340	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}814}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{33.0}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,668	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}451} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D): $\frac{v_p}{S}$ = **26.4** pc/mi/ln

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,895	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}935} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{35.5} \text{ pc/mi/ln}$$

Speed (S): **54.6** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,732	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}900}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.7}\ \text{pc/mi/ln}$$

Speed (S): **54.8** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,530	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}776}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{32.3}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,176	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations			Speed Adjustment Calculations		
Driver Population Factor (f_p):	1.00		Lane Width (f_{LW}):		mi/h
Passenger Car Equivalents for Trucks & Buses (E_T):	1.5		Lateral Clearance (f_{LC}):		mi/h
			Total Ramp Density (TRD):		ramps/mi
for RVs (E_R):	1.2		Free-Flow Speed:		
Heavy Vehicle Factor (f_{HV}):			75.4 - f_{LW} - f_{LC}		
$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)}$ =	0.978		- 3.22TRD^(0.84) =		mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p): $\frac{V}{PHF * N * f_{HV} * f_p}$ =	**1,680**	pc/h/ln	Density (D): $\frac{v_p}{S}$ =	**30.5**	pc/mi/ln
Speed (S):	**55.0**	mi/h	Level of Service (LOS):	**D**	

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,016	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}908}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.9}\ \text{pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,562	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}056}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{38.5}\ \text{pc/mi/ln}$$

Speed (S): **53.4** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,292	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}983}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{36.6}\ \text{pc/mi/ln}$$

Speed (S): **54.2** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,487	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = ____ \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}629} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{29.6} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,247	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}971}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{36.3}\ \text{pc/mi/ln}$$

Speed (S): **54.3** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,521	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}071} \text{ pc/h/ln}$$

Speed (S): **53.2** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{38.9} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	2,043	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1,111} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{20.2} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,830	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = ____ \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}083} \text{ pc/h/ln}$$

Speed (S): **53.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{39.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,835	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{998} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D): $\frac{v_p}{S}$ = **18.1** pc/mi/ln

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,884	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}025} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{18.6} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	30.3
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.524

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1527	666	0	0	0	409	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1527	666	0	0	0	409	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	382	167	0	0	0	102	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1527	666	0	0	0	409	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	35	37	0	0	0	18	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		23	20	34
g / C, Green / Cycle		0.26	0.23	0.38
(v / s)_i Volume / Saturation Flow Rate		0.18	0.19	0.08
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2175	785	1938
d1, Uniform Delay [s]		30.36	33.33	18.74
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.42	2.67	0.25
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.70	0.85	0.21
d, Delay for Lane Group [s/veh]		30.78	36.00	18.99
Lane Group LOS		C	D	B
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		5.91	7.08	1.91
50th-Percentile Queue Length [ft]		147.71	177.11	47.67
95th-Percentile Queue Length [veh]		9.89	11.45	3.43
95th-Percentile Queue Length [ft]		247.37	286.24	85.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	30.78	36.00	0.00	0.00	0.00	18.99	0.00
Movement LOS						C	D				B	
d_A, Approach Delay [s/veh]	0.00			30.78			36.00			18.99		
Approach LOS	A			C			D			B		
d_I, Intersection Delay [s/veh]	30.26											
Intersection LOS	C											
Intersection V/C	0.524											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.623

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	317	838	912	0	0	730	85	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	317	838	912	0	0	730	85	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	79	210	228	0	0	183	21	0	0	0
Total Analysis Volume [veh/h]	0	0	317	838	912	0	0	730	85	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	35	36	71	0	0	19	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	42	25	70	12	12	
g / C, Green / Cycle	0.46	0.27	0.78	0.13	0.13	
(v / s)_i Volume / Saturation Flow Rate	0.20	0.24	0.26	0.10	0.10	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1706	
c, Capacity [veh/h]	734	945	2775	870	219	
d1, Uniform Delay [s]	16.17	31.29	2.86	37.78	37.75	
k, delay calibration	0.16	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.58	3.04	0.32	1.32	5.11	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

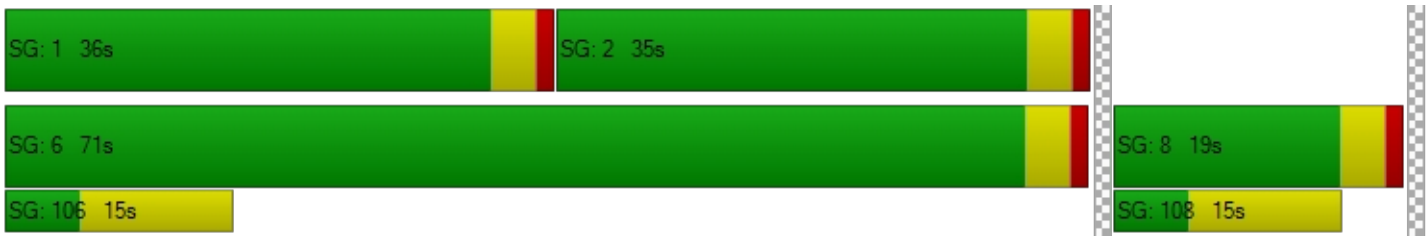
X, volume / capacity	0.43	0.89	0.33	0.75	0.74	
d, Delay for Lane Group [s/veh]	16.75	34.33	3.18	39.10	42.85	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	4.29	8.84	1.69	3.49	3.72	
50th-Percentile Queue Length [ft]	107.22	220.99	42.17	87.20	92.90	
95th-Percentile Queue Length [veh]	7.69	13.72	3.04	6.28	6.69	
95th-Percentile Queue Length [ft]	192.13	342.89	75.91	156.95	167.22	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	16.75	34.33	3.18	0.00	0.00	39.50	42.85	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	16.75			18.10			39.85			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	24.10											
Intersection LOS	C											
Intersection V/C	0.623											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	832	274	0	0	0	490	359	0	0	0	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	832	274	0	0	0	490	359	0	0	0	180
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	208	69	0	0	0	123	90	0	0	0	45
Total Analysis Volume [veh/h]	0	832	274	0	0	0	490	359	0	0	0	180
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	61	61		21	21	21
g / C, Green / Cycle	0.68	0.68		0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.21	0.22		0.18	0.10	0.11
s, saturation flow rate [veh/h]	3547	1647		2741	3547	1583
c, Capacity [veh/h]	2402	1115		649	829	370
d1, Uniform Delay [s]	5.92	6.04		34.37	29.36	29.77
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.33	0.80		1.81	0.36	0.99
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.33		0.75	0.43	0.49
d, Delay for Lane Group [s/veh]	6.25	6.83		36.18	29.72	30.76
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	2.52	2.70		5.21	3.29	3.41
50th-Percentile Queue Length [ft]	62.93	67.56		130.31	82.27	85.15
95th-Percentile Queue Length [veh]	4.53	4.86		8.96	5.92	6.13
95th-Percentile Queue Length [ft]	113.28	121.62		223.92	148.08	153.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.31	6.83	0.00	0.00	0.00	36.18	29.72	0.00	0.00	0.00	30.76
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	6.44			0.00			33.45		30.76			
Approach LOS	A			A			C		C			
d_I, Intersection Delay [s/veh]	19.23											
Intersection LOS	B											
Intersection V/C	0.442											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	17.0
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	281	169	168	397	349	375
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	281	169	168	397	349	375
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	42	42	99	87	94
Total Analysis Volume [veh/h]	281	169	168	397	349	375
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	61	0	29	27	0	29
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26	56	56	56	56
g / C, Green / Cycle	0.29	0.62	0.62	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.27	0.05	0.25	0.29	0.11
s, saturation flow rate [veh/h]	1697	3547	1583	1212	3547
c, Capacity [veh/h]	492	2202	983	778	2202
d1, Uniform Delay [s]	30.80	6.78	8.62	11.37	7.22
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.08	0.07	1.24	1.87	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.08	0.40	0.45	0.17
d, Delay for Lane Group [s/veh]	37.88	6.85	9.85	13.24	7.39
Lane Group LOS	D	A	A	B	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	10.05	0.60	3.83	4.19	1.44
50th-Percentile Queue Length [ft]	251.24	15.07	95.86	104.82	35.88
95th-Percentile Queue Length [veh]	15.25	1.08	6.90	7.55	2.58
95th-Percentile Queue Length [ft]	381.21	27.12	172.55	188.68	64.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.88	37.88	6.85	9.85	13.24	7.39
Movement LOS	D	D	A	A	B	A
d_A, Approach Delay [s/veh]	37.88		8.96		10.21	
Approach LOS	D		A		B	
d_I, Intersection Delay [s/veh]	16.96					
Intersection LOS	B					
Intersection V/C	0.607					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	170.9
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.535

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	295	63	626	0	1083	394	419	1269	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	295	63	626	0	1083	394	419	1269	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	74	16	157	0	271	99	105	317	0
Total Analysis Volume [veh/h]	0	0	0	295	63	626	0	1083	394	419	1269	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		50	50	50	32	32	32	32
g / C, Green / Cycle		0.56	0.56	0.56	0.36	0.36	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate		0.17	0.22	0.21	0.28	0.30	1.18	0.25
s, saturation flow rate [veh/h]		1774	1626	1583	3547	1632	356	5074
c, Capacity [veh/h]		986	904	880	1260	580	101	1802
d1, Uniform Delay [s]		10.63	11.39	11.18	25.85	26.74	44.38	24.90
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.78	1.32	1.21	1.09	3.59	1443.51	0.51
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.30	0.40	0.37	0.78	0.85	4.16	0.70
d, Delay for Lane Group [s/veh]		11.41	12.71	12.39	26.94	30.33	1487.90	25.41
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	yes	no	no	no	yes	no
50th-Percentile Queue Length [veh]		3.12	4.15	3.70	9.19	9.89	42.65	7.53
50th-Percentile Queue Length [ft]		78.07	103.67	92.45	229.80	247.20	1066.22	188.37
95th-Percentile Queue Length [veh]		5.62	7.46	6.66	14.16	15.05	73.81	12.04
95th-Percentile Queue Length [ft]		140.52	186.61	166.41	354.11	376.13	1845.25	300.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.41	12.71	12.54	0.00	27.25	30.33	1487.90	25.41	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			12.21			28.07			388.43		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	170.92											
Intersection LOS	F											
Intersection V/C	1.535											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	58.4
Analysis Method:	HCM2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.016

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	384	215	321	101	6	394	92	1120	190	50	904	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	384	215	321	101	6	394	92	1120	190	50	904	65
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	96	54	80	25	2	99	23	280	48	13	226	16
Total Analysis Volume [veh/h]	384	215	321	101	6	394	92	1120	190	50	904	65
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	25	0	0	25	0	9	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	21	21	21	22	22	22	30	30	30
g / C, Green / Cycle	0.30	0.30	0.23	0.23	0.23	0.25	0.25	0.25	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.22	0.32	0.06	0.00	0.25	0.16	0.25	0.25	0.07	0.18	0.18
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	578	3547	1728	674	3547	1800
c, Capacity [veh/h]	531	505	412	433	368	127	886	432	241	1189	603
d1, Uniform Delay [s]	28.24	31.58	28.18	26.67	34.62	43.18	33.76	33.76	23.63	24.34	24.35
k, delay calibration	0.24	0.49	0.11	0.11	0.48	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.16	57.26	0.31	0.01	66.44	29.82	28.83	41.89	1.94	1.76	3.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

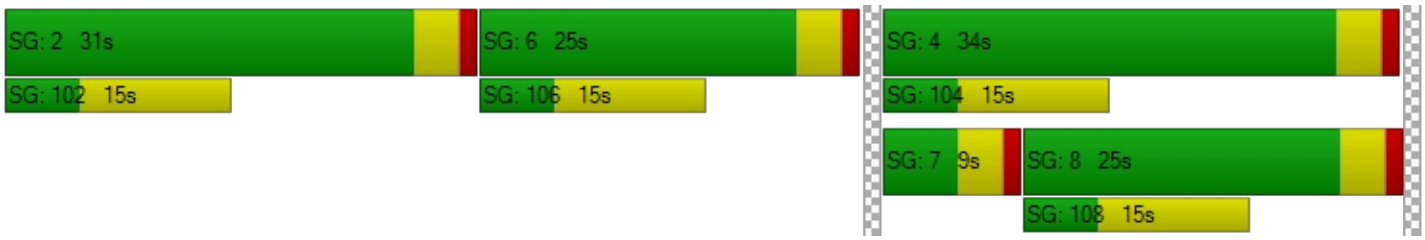
X, volume / capacity	0.72	1.06	0.25	0.01	1.07	0.72	0.99	0.99	0.21	0.54	0.54
d, Delay for Lane Group [s/veh]	32.40	88.84	28.49	26.68	101.06	73.00	62.58	75.65	25.57	26.10	27.82
Lane Group LOS	C	F	C	C	F	E	E	E	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	7.79	18.57	1.78	0.10	14.60	3.09	12.86	14.10	0.84	5.69	6.08
50th-Percentile Queue Length [ft]	194.72	464.31	44.56	2.49	365.00	77.27	321.53	352.46	20.97	142.29	152.07
95th-Percentile Queue Length [veh]	12.37	26.63	3.21	0.18	21.68	5.56	18.74	20.26	1.51	9.60	10.13
95th-Percentile Queue Length [ft]	309.15	665.66	80.22	4.49	542.00	139.08	468.57	506.40	37.75	240.11	253.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.40	88.84	88.84	28.49	26.68	101.06	73.00	65.37	75.65	25.57	26.60	27.82
Movement LOS	C	F	F	C	C	F	E	E	E	C	C	C
d_A, Approach Delay [s/veh]	65.28			85.54			67.26			26.63		
Approach LOS	E			F			E			C		
d_I, Intersection Delay [s/veh]	58.40											
Intersection LOS	E											
Intersection V/C	1.016											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	942	350	0	0	0	511	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	942	350	0	0	0	511	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	236	88	0	0	0	128	0
Total Analysis Volume [veh/h]	0	0	0	0	0	942	350	0	0	0	511	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	32	29	0	0	0	29	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		15	12	52
g / C, Green / Cycle		0.16	0.13	0.57
(v / s)_i Volume / Saturation Flow Rate		0.11	0.10	0.10
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1366	455	2908
d1, Uniform Delay [s]		35.64	37.77	9.13
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.63	2.77	0.13
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

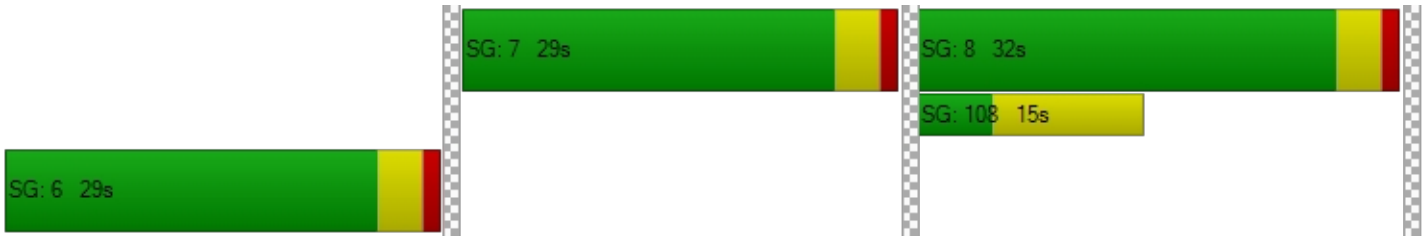
X, volume / capacity		0.69	0.77	0.18
d, Delay for Lane Group [s/veh]		36.27	40.54	9.26
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		3.89	3.84	1.51
50th-Percentile Queue Length [ft]		97.13	96.12	37.67
95th-Percentile Queue Length [veh]		6.99	6.92	2.71
95th-Percentile Queue Length [ft]		174.83	173.02	67.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	36.27	40.54	0.00	0.00	0.00	9.26	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			36.27			40.54			9.26		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	29.44											
Intersection LOS	C											
Intersection V/C	0.362											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	229	727	380	0	0	686	51	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	229	727	380	0	0	686	51	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	57	182	95	0	0	172	13	0	0	0
Total Analysis Volume [veh/h]	0	0	229	727	380	0	0	686	51	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	17	23	40	0	0	50	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	44	22	70	12	12	
g / C, Green / Cycle	0.49	0.24	0.78	0.13	0.13	
(v / s)_i Volume / Saturation Flow Rate	0.14	0.21	0.11	0.09	0.08	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1756	
c, Capacity [veh/h]	783	839	2776	869	226	
d1, Uniform Delay [s]	13.43	32.61	2.38	37.41	37.28	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.21	2.87	0.10	0.94	3.19	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

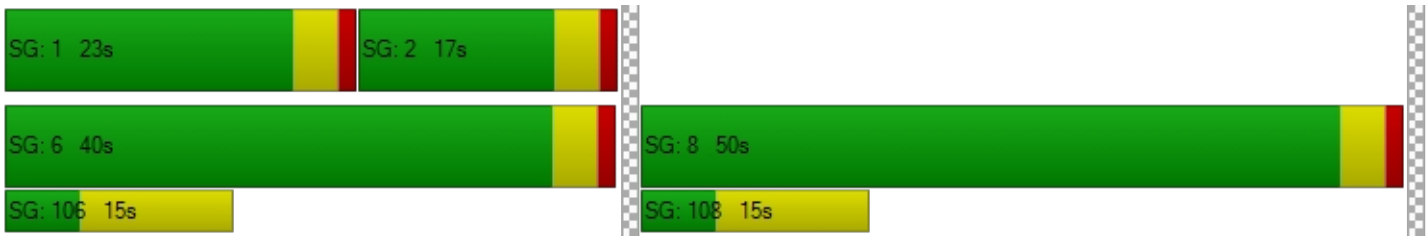
X, volume / capacity	0.29	0.87	0.14	0.68	0.65	
d, Delay for Lane Group [s/veh]	13.63	35.47	2.48	38.35	40.47	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	2.66	7.71	0.58	3.11	3.24	
50th-Percentile Queue Length [ft]	66.38	192.78	14.54	77.69	81.00	
95th-Percentile Queue Length [veh]	4.78	12.27	1.05	5.59	5.83	
95th-Percentile Queue Length [ft]	119.48	306.64	26.18	139.84	145.80	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	13.63	35.47	2.48	0.00	0.00	38.64	40.47	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	13.63			24.15			38.77			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	28.19											
Intersection LOS	C											
Intersection V/C	0.511											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.276

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	523	81	0	0	0	373	118	0	0	0	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	523	81	0	0	0	373	118	0	0	0	126
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	131	20	0	0	0	93	30	0	0	0	32
Total Analysis Volume [veh/h]	0	523	81	0	0	0	373	118	0	0	0	126
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	65	65		17	17	17
g / C, Green / Cycle	0.73	0.73		0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12		0.14	0.03	0.08
s, saturation flow rate [veh/h]	3547	1739		2741	3547	1583
c, Capacity [veh/h]	2572	1261		522	660	294
d1, Uniform Delay [s]	3.83	3.84		36.64	30.83	32.38
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	0.27		1.84	0.13	0.98
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.16		0.71	0.18	0.43
d, Delay for Lane Group [s/veh]	3.96	4.11		38.48	30.96	33.37
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	0.95	1.00		4.04	1.08	2.47
50th-Percentile Queue Length [ft]	23.75	25.02		100.97	26.95	61.80
95th-Percentile Queue Length [veh]	1.71	1.80		7.27	1.94	4.45
95th-Percentile Queue Length [ft]	42.75	45.04		181.74	48.51	111.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.00	4.11	0.00	0.00	0.00	38.48	30.96	0.00	0.00	0.00	33.37
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	4.01			0.00			36.67		33.37			
Approach LOS	A			A			D		C			
d_I, Intersection Delay [s/veh]	20.18											
Intersection LOS	C											
Intersection V/C	0.276											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.269

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	189	21	103	199	66	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	21	103	199	66	195
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	5	26	50	17	49
Total Analysis Volume [veh/h]	189	21	103	199	66	195
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	60	0	30	63	0	30
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	69	69	69	69
g / C, Green / Cycle	0.14	0.77	0.77	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.12	0.03	0.13	0.05	0.05
s, saturation flow rate [veh/h]	1753	3547	1583	1286	3547
c, Capacity [veh/h]	251	2723	1216	1018	2723
d1, Uniform Delay [s]	37.47	2.49	2.77	3.48	2.56
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.26	0.03	0.29	0.12	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.04	0.16	0.06	0.07
d, Delay for Lane Group [s/veh]	44.73	2.52	3.06	3.60	2.61
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	4.92	0.16	0.76	0.30	0.32
50th-Percentile Queue Length [ft]	123.07	4.11	19.03	7.62	8.00
95th-Percentile Queue Length [veh]	8.56	0.30	1.37	0.55	0.58
95th-Percentile Queue Length [ft]	214.04	7.40	34.26	13.72	14.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.73	44.73	2.52	3.06	3.60	2.61
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.73		2.87		2.86	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	14.24					
Intersection LOS	B					
Intersection V/C	0.269					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	54.3
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.020

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	262	46	473	0	1116	576	222	1184	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	262	46	473	0	1116	576	222	1184	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	66	12	118	0	279	144	56	296	0
Total Analysis Volume [veh/h]	0	0	0	262	46	473	0	1116	576	222	1184	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	44	38	38	38	38
g / C, Green / Cycle		0.49	0.49	0.49	0.43	0.43	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate		0.15	0.16	0.16	0.31	0.36	0.77	0.23
s, saturation flow rate [veh/h]		1774	1626	1583	3547	1583	290	5074
c, Capacity [veh/h]		863	791	770	1505	672	102	2154
d1, Uniform Delay [s]		13.90	14.12	14.14	21.71	23.38	44.21	19.41
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.91	1.12	1.17	0.74	3.30	564.45	0.22
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.30	0.33	0.33	0.74	0.86	2.19	0.55
d, Delay for Lane Group [s/veh]		14.80	15.24	15.31	22.44	26.68	608.66	19.63
Lane Group LOS		B	B	B	C	C	F	B
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		3.28	3.35	3.31	9.50	11.01	18.17	5.95
50th-Percentile Queue Length [ft]		81.92	83.81	82.65	237.45	275.17	454.22	148.80
95th-Percentile Queue Length [veh]		5.90	6.03	5.95	14.55	16.45	32.70	9.95
95th-Percentile Queue Length [ft]		147.46	150.85	148.77	363.81	411.19	817.60	248.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	14.81	15.24	15.28	0.00	22.44	26.68	608.66	19.63	0.00
Movement LOS				B	B	B		C	C	F	B	
d_A, Approach Delay [s/veh]	0.00			15.12			23.89			112.63		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	54.29											
Intersection LOS	D											
Intersection V/C	1.020											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	27.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	478	112	192	54	7	6	76	893	410	116	895	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	478	112	192	54	7	6	76	893	410	116	895	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	28	48	14	2	2	19	223	103	29	224	12
Total Analysis Volume [veh/h]	478	112	192	54	7	6	76	893	410	116	895	47
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	1	1	1	44	44	44	53	53	53
g / C, Green / Cycle	0.26	0.26	0.02	0.02	0.02	0.49	0.49	0.49	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.22	0.23	0.03	0.00	0.00	0.13	0.25	0.26	0.20	0.18	0.18
s, saturation flow rate [veh/h]	1774	1696	1774	1863	1583	593	3547	1583	594	3547	1816
c, Capacity [veh/h]	464	444	29	30	26	302	1742	778	391	2089	1069
d1, Uniform Delay [s]	31.62	31.77	44.32	43.77	43.77	20.16	15.58	15.73	10.30	9.23	9.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.59	5.29	426.48	3.89	4.62	1.99	1.08	2.55	1.93	0.37	0.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.87	1.89	0.23	0.23	0.25	0.51	0.53	0.30	0.30	0.30
d, Delay for Lane Group [s/veh]	36.21	37.06	470.79	47.66	48.39	22.14	16.66	18.28	12.23	9.60	9.95
Lane Group LOS	D	D	F	D	D	C	B	B	B	A	A
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.56	8.42	4.02	0.19	0.16	1.28	6.12	5.98	1.13	2.89	3.07
50th-Percentile Queue Length [ft]	213.94	210.61	100.53	4.63	4.09	31.88	153.00	149.55	28.15	72.35	76.84
95th-Percentile Queue Length [veh]	13.36	13.18	7.24	0.33	0.29	2.30	10.18	9.99	2.03	5.21	5.53
95th-Percentile Queue Length [ft]	333.88	329.62	180.95	8.33	7.36	57.39	254.42	249.83	50.67	130.23	138.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.36	37.06	37.06	470.79	47.66	48.39	22.14	16.66	18.28	12.23	9.71	9.95
Movement LOS	D	D	D	F	D	D	C	B	B	B	A	A
d_A, Approach Delay [s/veh]	36.63			388.76			17.45			9.99		
Approach LOS	D			F			B			A		
d_I, Intersection Delay [s/veh]	27.18											
Intersection LOS	C											
Intersection V/C	0.667											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Future with Project Conditions (Year 2021)

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,402	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}828} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{33.2} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,699	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}457} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{26.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,988	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}955}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{35.9}\ \text{pc/mi/ln}$$

Speed (S): **54.4** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,794	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}913} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{35.0} \text{ pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,534	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}777}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{32.3}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,176	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}680}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{30.5}\ \text{pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,024	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}910}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.9}\ \text{pc/mi/ln}$$

Speed (S): **54.7** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,562	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}056} \text{ pc/h/ln}$$

Speed (S): **53.4** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{38.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,304	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}986}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{36.7}\ \text{pc/mi/ln}$$

Speed (S): **54.1** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,511	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}634} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{29.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,271	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}977}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{36.5}\ \text{pc/mi/ln}$$

Speed (S): **54.2** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,558	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}079} \text{ pc/h/ln}$$

Speed (S): **53.1** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{39.2} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	2,055	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}118} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{20.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,854	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}096} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{39.7} \text{ pc/mi/ln}$$

Speed (S): **52.8** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,859	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}011}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{18.4}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,921	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}045}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{19.0}\ \text{pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.531

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1527	670	0	0	0	432	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1527	670	0	0	0	432	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	382	168	0	0	0	108	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1527	670	0	0	0	432	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	21	22	0	0	0	47	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		23	21	34
g / C, Green / Cycle		0.26	0.23	0.38
(v / s)_i Volume / Saturation Flow Rate		0.18	0.19	0.09
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2177	789	1930
d1, Uniform Delay [s]		30.35	33.26	18.92
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.42	2.66	0.27
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

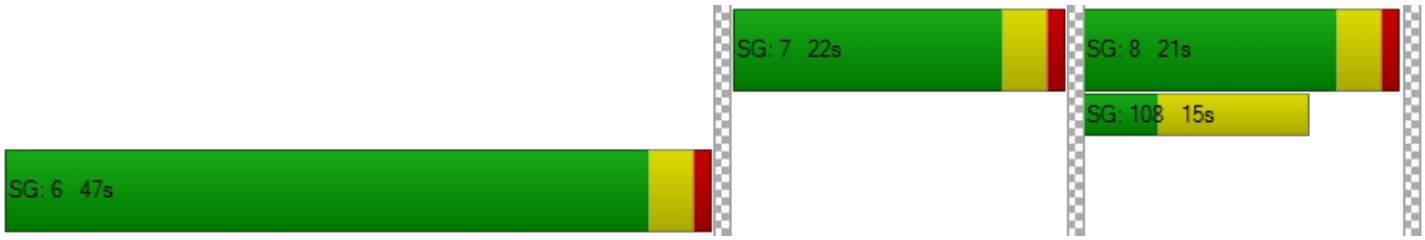
X, volume / capacity		0.70	0.85	0.22
d, Delay for Lane Group [s/veh]		30.77	35.92	19.19
Lane Group LOS		C	D	B
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		5.91	7.12	2.03
50th-Percentile Queue Length [ft]		147.69	178.07	50.75
95th-Percentile Queue Length [veh]		9.89	11.50	3.65
95th-Percentile Queue Length [ft]		247.34	287.49	91.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	30.77	35.92	0.00	0.00	0.00	19.19	0.00
Movement LOS						C	D				B	
d_A, Approach Delay [s/veh]	0.00			30.77			35.92			19.19		
Approach LOS	A			C			D			B		
d_I, Intersection Delay [s/veh]	30.18											
Intersection LOS	C											
Intersection V/C	0.531											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.633

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	317	838	912	0	0	800	85	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	317	838	912	0	0	800	85	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	79	210	228	0	0	200	21	0	0	0
Total Analysis Volume [veh/h]	0	0	317	838	912	0	0	800	85	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	20	24	44	0	0	46	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	40	25	68	14	14	
g / C, Green / Cycle	0.44	0.27	0.76	0.15	0.15	
(v / s)_i Volume / Saturation Flow Rate	0.20	0.24	0.26	0.10	0.10	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1717	
c, Capacity [veh/h]	700	943	2697	1018	258	
d1, Uniform Delay [s]	17.47	31.30	3.47	36.21	36.14	
k, delay calibration	0.16	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.66	3.09	0.34	0.87	3.21	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.45	0.89	0.34	0.70	0.69	
d, Delay for Lane Group [s/veh]	18.14	34.39	3.81	37.08	39.35	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	4.51	8.84	2.03	3.69	3.85	
50th-Percentile Queue Length [ft]	112.78	221.09	50.67	92.15	96.21	
95th-Percentile Queue Length [veh]	7.99	13.72	3.65	6.63	6.93	
95th-Percentile Queue Length [ft]	199.86	343.02	91.21	165.87	173.18	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	18.14	34.39	3.81	0.00	0.00	37.34	39.35	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	18.14			18.45			37.53			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	24.14											
Intersection LOS	C											
Intersection V/C	0.633											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	836	274	0	0	0	552	359	0	0	0	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	836	274	0	0	0	552	359	0	0	0	180
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	209	69	0	0	0	138	90	0	0	0	45
Total Analysis Volume [veh/h]	0	836	274	0	0	0	552	359	0	0	0	180
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	29	0	0	0	0	0	61	0	0	0	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	59	59		23	23	23
g / C, Green / Cycle	0.66	0.66		0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.21	0.22		0.20	0.10	0.11
s, saturation flow rate [veh/h]	3547	1647		2741	3547	1583
c, Capacity [veh/h]	2337	1086		712	894	399
d1, Uniform Delay [s]	6.61	6.75		33.34	28.00	28.39
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	0.85		1.84	0.29	0.80
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.34		0.77	0.40	0.45
d, Delay for Lane Group [s/veh]	6.97	7.61		35.19	28.29	29.19
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	2.74	2.94		5.84	3.20	3.30
50th-Percentile Queue Length [ft]	68.54	73.45		146.02	79.97	82.61
95th-Percentile Queue Length [veh]	4.94	5.29		9.80	5.76	5.95
95th-Percentile Queue Length [ft]	123.38	132.20		245.11	143.95	148.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	7.04	7.61	0.00	0.00	0.00	35.19	28.29	0.00	0.00	0.00	29.19
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	7.18			0.00			32.47		29.19			
Approach LOS	A			A			C		C			
d_I, Intersection Delay [s/veh]	19.45											
Intersection LOS	B											
Intersection V/C	0.468											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	293	169	168	421	349	375
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	293	169	168	421	349	375
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	42	42	105	87	94
Total Analysis Volume [veh/h]	293	169	168	421	349	375
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	61	0	29	28	0	29
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	55	55	55	55
g / C, Green / Cycle	0.30	0.61	0.61	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.27	0.05	0.27	0.29	0.11
s, saturation flow rate [veh/h]	1699	3547	1583	1212	3547
c, Capacity [veh/h]	505	2178	972	769	2178
d1, Uniform Delay [s]	30.49	7.03	9.12	11.74	7.48
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.05	0.07	1.41	1.93	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.08	0.43	0.45	0.17
d, Delay for Lane Group [s/veh]	37.54	7.09	10.52	13.67	7.66
Lane Group LOS	D	A	B	B	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	10.29	0.62	4.26	4.29	1.47
50th-Percentile Queue Length [ft]	257.26	15.45	106.56	107.15	36.79
95th-Percentile Queue Length [veh]	15.55	1.11	7.65	7.68	2.65
95th-Percentile Queue Length [ft]	388.78	27.81	191.21	192.04	66.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.54	37.54	7.09	10.52	13.67	7.66
Movement LOS	D	D	A	B	B	A
d_A, Approach Delay [s/veh]	37.54		9.55		10.56	
Approach LOS	D		A		B	
d_I, Intersection Delay [s/veh]	17.24					
Intersection LOS	B					
Intersection V/C	0.614					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	169.6
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.558

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	295	63	634	0	1083	410	419	1277	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	295	63	634	0	1083	410	419	1277	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	74	16	159	0	271	103	105	319	0
Total Analysis Volume [veh/h]	0	0	0	295	63	634	0	1083	410	419	1277	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		49	49	49	32	32	32	32
g / C, Green / Cycle		0.55	0.55	0.55	0.36	0.36	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate		0.17	0.23	0.21	0.28	0.31	1.19	0.25
s, saturation flow rate [veh/h]		1774	1625	1583	3547	1626	351	5074
c, Capacity [veh/h]		977	895	872	1277	586	101	1827
d1, Uniform Delay [s]		10.87	11.70	11.45	25.56	26.50	44.37	24.57
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.79	1.39	1.25	1.06	3.57	1443.39	0.49
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.30	0.41	0.38	0.78	0.85	4.16	0.70
d, Delay for Lane Group [s/veh]		11.66	13.08	12.71	26.63	30.07	1487.76	25.07
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	yes	no	no	no	yes	no
50th-Percentile Queue Length [veh]		3.17	4.29	3.79	9.24	9.96	42.65	7.53
50th-Percentile Queue Length [ft]		79.23	107.30	94.81	231.00	249.06	1066.20	188.13
95th-Percentile Queue Length [veh]		5.70	7.69	6.83	14.23	15.14	73.90	12.02
95th-Percentile Queue Length [ft]		142.61	192.24	170.66	355.63	378.47	1847.55	300.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	11.66	13.08	12.89	0.00	26.91	30.07	1487.76	25.07	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			12.54			27.77			386.43		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	169.64											
Intersection LOS	F											
Intersection V/C	1.558											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	58.4
Analysis Method:	HCM2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.016

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	392	215	321	101	6	394	92	1120	190	50	904	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	392	215	321	101	6	394	92	1120	190	50	904	65
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	54	80	25	2	99	23	280	48	13	226	16
Total Analysis Volume [veh/h]	392	215	321	101	6	394	92	1120	190	50	904	65
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	25	0	0	25	0	9	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	21	21	21	22	22	22	30	30	30
g / C, Green / Cycle	0.30	0.30	0.23	0.23	0.23	0.25	0.25	0.25	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.22	0.32	0.06	0.00	0.25	0.16	0.25	0.25	0.07	0.18	0.18
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	578	3547	1728	674	3547	1800
c, Capacity [veh/h]	531	505	412	433	368	127	886	432	241	1189	603
d1, Uniform Delay [s]	28.40	31.58	28.18	26.67	34.62	43.18	33.76	33.76	23.63	24.34	24.35
k, delay calibration	0.25	0.49	0.11	0.11	0.48	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.67	57.26	0.31	0.01	66.44	29.82	28.83	41.89	1.94	1.76	3.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

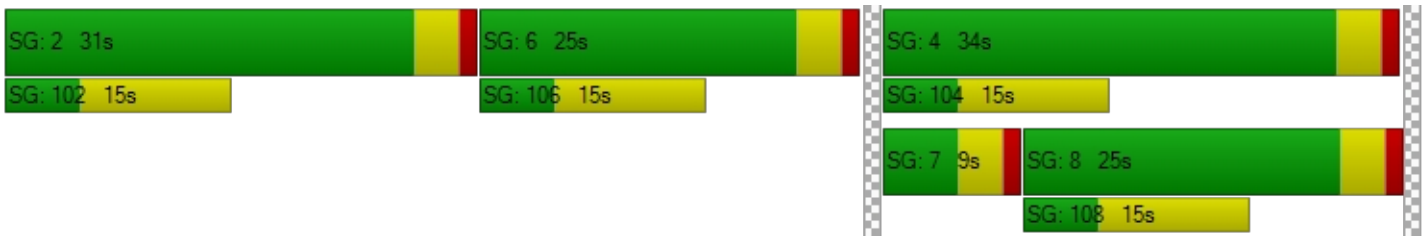
X, volume / capacity	0.74	1.06	0.25	0.01	1.07	0.72	0.99	0.99	0.21	0.54	0.54
d, Delay for Lane Group [s/veh]	33.07	88.84	28.49	26.68	101.06	73.00	62.58	75.65	25.57	26.10	27.82
Lane Group LOS	C	F	C	C	F	E	E	E	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.06	18.57	1.78	0.10	14.60	3.09	12.86	14.10	0.84	5.69	6.08
50th-Percentile Queue Length [ft]	201.38	464.31	44.56	2.49	365.00	77.27	321.53	352.46	20.97	142.29	152.07
95th-Percentile Queue Length [veh]	12.71	26.63	3.21	0.18	21.68	5.56	18.74	20.26	1.51	9.60	10.13
95th-Percentile Queue Length [ft]	317.75	665.66	80.22	4.49	542.00	139.08	468.57	506.40	37.75	240.11	253.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.07	88.84	88.84	28.49	26.68	101.06	73.00	65.37	75.65	25.57	26.60	27.82
Movement LOS	C	F	F	C	C	F	E	E	E	C	C	C
d_A, Approach Delay [s/veh]	65.28			85.54			67.26			26.63		
Approach LOS	E			F			E			C		
d_I, Intersection Delay [s/veh]	58.41											
Intersection LOS	E											
Intersection V/C	1.016											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.375

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	942	358	0	0	0	557	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	942	358	0	0	0	557	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	236	90	0	0	0	139	0
Total Analysis Volume [veh/h]	0	0	0	0	0	942	358	0	0	0	557	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	19	15	0	0	0	56	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		15	12	51
g / C, Green / Cycle		0.16	0.13	0.57
(v / s)_i Volume / Saturation Flow Rate		0.11	0.10	0.11
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1367	464	2895
d1, Uniform Delay [s]		35.63	37.65	9.33
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.63	2.76	0.15
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.69	0.77	0.19
d, Delay for Lane Group [s/veh]		36.26	40.41	9.48
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		3.89	3.93	1.67
50th-Percentile Queue Length [ft]		97.13	98.22	41.82
95th-Percentile Queue Length [veh]		6.99	7.07	3.01
95th-Percentile Queue Length [ft]		174.83	176.80	75.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	36.26	40.41	0.00	0.00	0.00	9.48	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			36.26			40.41			9.48		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	29.03											
Intersection LOS	C											
Intersection V/C	0.375											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	28.5
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.525

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	229	727	380	0	0	791	51	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	229	727	380	0	0	791	51	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	57	182	95	0	0	198	13	0	0	0
Total Analysis Volume [veh/h]	0	0	229	727	380	0	0	791	51	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	30	22	52	0	0	38	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	43	22	69	13	13	
g / C, Green / Cycle	0.48	0.24	0.77	0.14	0.14	
(v / s)_i Volume / Saturation Flow Rate	0.14	0.21	0.11	0.10	0.10	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1768	
c, Capacity [veh/h]	759	839	2723	970	253	
d1, Uniform Delay [s]	14.23	32.61	2.72	36.64	36.47	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.22	2.87	0.11	0.91	2.98	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.30	0.87	0.14	0.69	0.66	
d, Delay for Lane Group [s/veh]	14.45	35.48	2.82	37.55	39.45	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	2.76	7.71	0.66	3.53	3.66	
50th-Percentile Queue Length [ft]	68.92	192.79	16.55	88.13	91.43	
95th-Percentile Queue Length [veh]	4.96	12.27	1.19	6.35	6.58	
95th-Percentile Queue Length [ft]	124.05	306.64	29.78	158.63	164.58	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	14.45	35.48	2.82	0.00	0.00	37.83	39.45	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	14.45			24.27			37.93			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	28.52											
Intersection LOS	C											
Intersection V/C	0.525											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.315

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	531	81	0	0	0	466	118	0	0	0	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	531	81	0	0	0	466	118	0	0	0	126
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	133	20	0	0	0	117	30	0	0	0	32
Total Analysis Volume [veh/h]	0	531	81	0	0	0	466	118	0	0	0	126
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	62	62		20	20	20
g / C, Green / Cycle	0.69	0.69		0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12		0.17	0.03	0.08
s, saturation flow rate [veh/h]	3547	1741		2741	3547	1583
c, Capacity [veh/h]	2449	1202		613	782	349
d1, Uniform Delay [s]	4.87	4.88		35.16	28.25	29.67
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.31		1.98	0.09	0.63
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.17		0.76	0.15	0.36
d, Delay for Lane Group [s/veh]	5.01	5.19		37.14	28.34	30.30
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	1.17	1.22		5.01	1.02	2.33
50th-Percentile Queue Length [ft]	29.18	30.56		125.28	25.56	58.31
95th-Percentile Queue Length [veh]	2.10	2.20		8.68	1.84	4.20
95th-Percentile Queue Length [ft]	52.53	55.00		217.06	46.01	104.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.05	5.19	0.00	0.00	0.00	37.14	28.34	0.00	0.00	0.00	30.30
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	5.07			0.00			35.36		30.30			
Approach LOS	A			A			D		C			
d_I, Intersection Delay [s/veh]	20.86											
Intersection LOS	C											
Intersection V/C	0.315											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.310

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	213	21	103	236	66	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	213	21	103	236	66	195
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	5	26	59	17	49
Total Analysis Volume [veh/h]	213	21	103	236	66	195
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	59	0	31	66	0	31
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	68	68	68	68
g / C, Green / Cycle	0.16	0.75	0.75	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.13	0.03	0.15	0.05	0.05
s, saturation flow rate [veh/h]	1755	3547	1583	1286	3547
c, Capacity [veh/h]	275	2674	1194	1000	2674
d1, Uniform Delay [s]	36.83	2.80	3.19	3.83	2.88
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.21	0.03	0.37	0.13	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.04	0.20	0.07	0.07
d, Delay for Lane Group [s/veh]	44.04	2.83	3.56	3.96	2.93
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	5.46	0.18	1.03	0.33	0.36
50th-Percentile Queue Length [ft]	136.41	4.58	25.70	8.23	8.91
95th-Percentile Queue Length [veh]	9.29	0.33	1.85	0.59	0.64
95th-Percentile Queue Length [ft]	232.18	8.24	46.27	14.82	16.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.04	44.04	2.83	3.56	3.96	2.93
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.04		3.34		3.19	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	14.71					
Intersection LOS	B					
Intersection V/C	0.310					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	53.4
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.046

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	262	46	489	0	1116	601	222	1200	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	262	46	489	0	1116	601	222	1200	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	66	12	122	0	279	150	56	300	0
Total Analysis Volume [veh/h]	0	0	0	262	46	489	0	1116	601	222	1200	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		42	42	42	40	40	40	40
g / C, Green / Cycle		0.47	0.47	0.47	0.44	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate		0.15	0.17	0.17	0.31	0.38	0.79	0.24
s, saturation flow rate [veh/h]		1774	1625	1583	3547	1583	283	5074
c, Capacity [veh/h]		836	766	746	1560	696	101	2231
d1, Uniform Delay [s]		14.74	15.06	15.09	20.57	22.72	44.21	18.46
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.98	1.27	1.33	0.62	3.34	565.98	0.20
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.31	0.35	0.36	0.72	0.86	2.19	0.54
d, Delay for Lane Group [s/veh]		15.72	16.33	16.41	21.19	26.06	610.18	18.67
Lane Group LOS		B	B	B	C	C	F	B
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		3.40	3.61	3.57	9.17	11.39	18.18	5.85
50th-Percentile Queue Length [ft]		85.11	90.31	89.22	229.22	284.85	454.60	146.36
95th-Percentile Queue Length [veh]		6.13	6.50	6.42	14.13	16.93	32.73	9.82
95th-Percentile Queue Length [ft]		153.20	162.56	160.59	353.37	423.25	818.28	245.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	15.72	16.33	16.38	0.00	21.19	26.06	610.18	18.67	0.00
Movement LOS				B	B	B		C	C	F	B	
d_A, Approach Delay [s/veh]	0.00			16.16			22.90			111.01		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	53.37											
Intersection LOS	D											
Intersection V/C	1.046											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.673

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	494	112	192	54	7	6	76	893	410	116	895	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	494	112	192	54	7	6	76	893	410	116	895	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	124	28	48	14	2	2	19	223	103	29	224	12
Total Analysis Volume [veh/h]	494	112	192	54	7	6	76	893	410	116	895	47
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	1	1	1	44	44	44	53	53	53
g / C, Green / Cycle	0.27	0.27	0.02	0.02	0.02	0.49	0.49	0.49	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.23	0.23	0.03	0.00	0.00	0.13	0.25	0.26	0.19	0.18	0.18
s, saturation flow rate [veh/h]	1774	1697	1774	1863	1583	593	3547	1583	596	3547	1816
c, Capacity [veh/h]	473	452	29	30	26	299	1725	770	388	2072	1060
d1, Uniform Delay [s]	31.38	31.55	44.32	43.77	43.77	20.54	15.88	16.03	10.54	9.45	9.46
k, delay calibration	0.11	0.12	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.56	5.61	426.48	3.89	4.62	2.04	1.11	2.63	1.96	0.37	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.87	1.89	0.23	0.23	0.25	0.52	0.53	0.30	0.30	0.30
d, Delay for Lane Group [s/veh]	35.94	37.16	470.80	47.66	48.39	22.58	17.00	18.66	12.50	9.82	10.19
Lane Group LOS	D	D	F	D	D	C	B	B	B	A	B
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.70	8.63	4.02	0.19	0.16	1.29	6.20	6.06	1.14	2.94	3.12
50th-Percentile Queue Length [ft]	217.50	215.83	100.53	4.63	4.09	32.27	154.94	151.52	28.58	73.52	78.07
95th-Percentile Queue Length [veh]	13.54	13.45	7.24	0.33	0.29	2.32	10.28	10.10	2.06	5.29	5.62
95th-Percentile Queue Length [ft]	338.43	336.29	180.95	8.33	7.36	58.09	257.01	252.45	51.44	132.34	140.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.17	37.16	37.16	470.80	47.66	48.39	22.58	17.00	18.66	12.50	9.93	10.19
Movement LOS	D	D	D	F	D	D	C	B	B	B	A	B
d_A, Approach Delay [s/veh]	36.54			388.76			17.80			10.23		
Approach LOS	D			F			B			B		
d_I, Intersection Delay [s/veh]	27.43											
Intersection LOS	C											
Intersection V/C	0.673											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Long Range without Project Conditions (Year 2035)

LONG RANGE WITHOUT PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,640	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}880} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.3} \text{ pc/mi/ln}$$

Speed (S): **54.8** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,908	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}503} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{27.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

LONG RANGE WITHOUT PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,215	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}005} \text{ pc/h/ln}$$

Speed (S): **54.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{37.2} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,046	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations		Speed Adjustment Calculations		
Driver Population Factor (f_p):	1.00	Lane Width (f_{LW}):		mi/h
Passenger Car Equivalents for Trucks & Buses (E_T):	1.5	Lateral Clearance (f_{LC}):		mi/h
		Total Ramp Density (TRD):		ramps/mi
for RVs (E_R):	1.2	Free-Flow Speed:		
Heavy Vehicle Factor (f_{HV}):		75.4 - f_{LW} - f_{LC}		
$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)}$ =	0.978	- 3.22TRD^(0.84) =		mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p): $\frac{V}{PHF * N * f_{HV} * f_p}$ =	**1,968**	pc/h/ln	Density (D): $\frac{v_p}{S}$ =	**36.2**	pc/mi/ln
Speed (S):	**54.3**	mi/h	Level of Service (LOS):	**E**	

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,765	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}840} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{33.5} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,398	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}740} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{31.6} \text{ pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,269	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}977} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{36.5} \text{ pc/mi/ln}$$

Speed (S): **54.2** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

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Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,834	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}130}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{40.7}\ \text{pc/mi/ln}$$

Speed (S): **52.3** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

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Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,555	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}055} \text{ pc/h/ln}$$

Speed (S): **53.4** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{38.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,757	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}688} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{30.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,508	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}042} \text{ pc/h/ln}$$

Speed (S): **53.6** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{38.1} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,864	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}146} \text{ pc/h/ln}$$

Speed (S): **52.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{41.2} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	2,117	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}151} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{20.9} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,968	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}158} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{41.6} \text{ pc/mi/ln}$$

Speed (S): **51.8** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

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Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,901	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}034}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{18.8}\ \text{pc/mi/ln}$$

Speed (S): **55.0** mi/h

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,952	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}062} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{19.3} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1582	690	0	0	0	424	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1582	690	0	0	0	424	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	396	173	0	0	0	106	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1582	690	0	0	0	424	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	21	22	0	0	0	47	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		24	21	33
g / C, Green / Cycle		0.27	0.23	0.37
(v / s)_i Volume / Saturation Flow Rate		0.19	0.20	0.08
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2254	809	1854
d1, Uniform Delay [s]		29.84	33.00	19.81
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.40	2.67	0.29
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

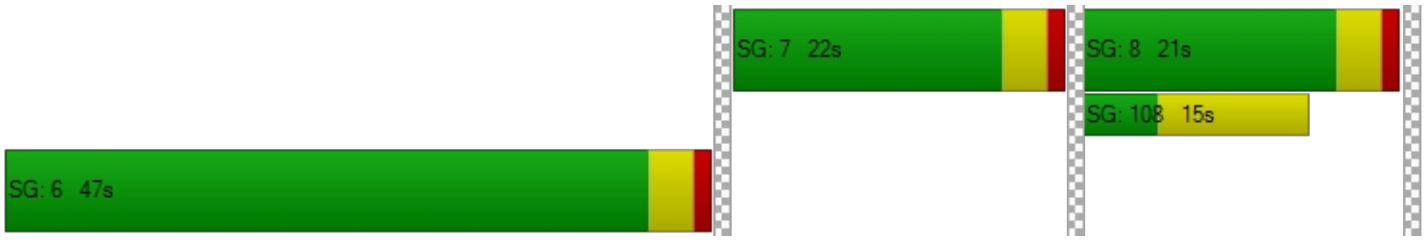
X, volume / capacity		0.70	0.85	0.23
d, Delay for Lane Group [s/veh]		30.25	35.67	20.10
Lane Group LOS		C	D	C
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		6.08	7.32	2.05
50th-Percentile Queue Length [ft]		151.94	183.09	51.23
95th-Percentile Queue Length [veh]		10.12	11.76	3.69
95th-Percentile Queue Length [ft]		253.02	294.04	92.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	30.25	35.67	0.00	0.00	0.00	20.10	0.00
Movement LOS						C	D				C	
d_A, Approach Delay [s/veh]	0.00			30.25			35.67			20.10		
Approach LOS	A			C			D			C		
d_I, Intersection Delay [s/veh]	30.04											
Intersection LOS	C											
Intersection V/C	0.543											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	328	868	945	0	0	756	88	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	328	868	945	0	0	756	88	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	82	217	236	0	0	189	22	0	0	0
Total Analysis Volume [veh/h]	0	0	328	868	945	0	0	756	88	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	21	25	46	0	0	44	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	40	25	69	13	13	
g / C, Green / Cycle	0.44	0.28	0.77	0.14	0.14	
(v / s)_i Volume / Saturation Flow Rate	0.21	0.25	0.27	0.10	0.10	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1706	
c, Capacity [veh/h]	697	971	2719	977	246	
d1, Uniform Delay [s]	17.75	30.97	3.34	36.53	36.49	
k, delay calibration	0.17	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.79	3.18	0.35	0.89	3.36	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

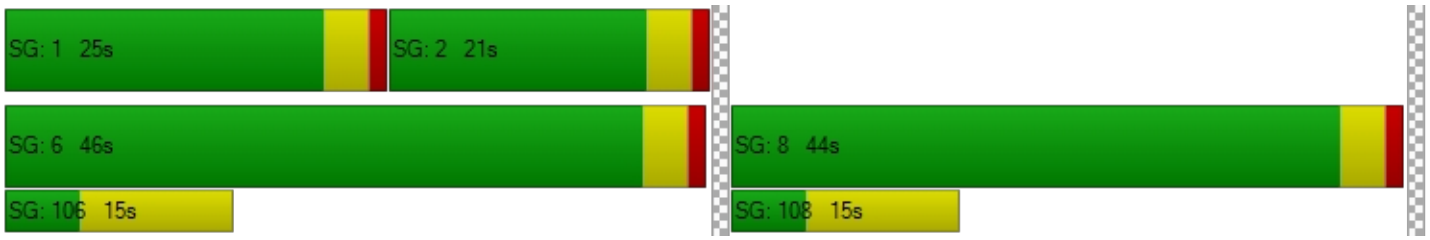
X, volume / capacity	0.47	0.89	0.35	0.69	0.69	
d, Delay for Lane Group [s/veh]	18.53	34.15	3.69	37.42	39.86	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	4.74	9.16	2.03	3.53	3.69	
50th-Percentile Queue Length [ft]	118.62	228.90	50.69	88.17	92.34	
95th-Percentile Queue Length [veh]	8.32	14.12	3.65	6.35	6.65	
95th-Percentile Queue Length [ft]	207.93	352.96	91.25	158.71	166.21	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	18.53	34.15	3.69	0.00	0.00	37.68	39.86	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	18.53			18.27			37.90			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	23.85											
Intersection LOS	C											
Intersection V/C	0.645											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.458

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	862	284	0	0	0	508	372	0	0	0	186
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	862	284	0	0	0	508	372	0	0	0	186
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	216	71	0	0	0	127	93	0	0	0	47
Total Analysis Volume [veh/h]	0	862	284	0	0	0	508	372	0	0	0	186
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	60	60		22	22	22
g / C, Green / Cycle	0.67	0.67		0.24	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.22	0.23		0.19	0.10	0.12
s, saturation flow rate [veh/h]	3547	1647		2741	3547	1583
c, Capacity [veh/h]	2377	1104		668	854	381
d1, Uniform Delay [s]	6.23	6.36		34.04	28.95	29.37
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	0.86		1.81	0.35	0.97
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.35		0.76	0.44	0.49
d, Delay for Lane Group [s/veh]	6.59	7.22		35.85	29.30	30.33
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	2.72	2.92		5.39	3.39	3.50
50th-Percentile Queue Length [ft]	67.93	72.97		134.81	84.70	87.42
95th-Percentile Queue Length [veh]	4.89	5.25		9.20	6.10	6.29
95th-Percentile Queue Length [ft]	122.27	131.34		230.02	152.46	157.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.66	7.22	0.00	0.00	0.00	35.85	29.30	0.00	0.00	0.00	30.33
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	6.80			0.00			33.08		30.33			
Approach LOS	A			A			C		C			
d_I, Intersection Delay [s/veh]	19.23											
Intersection LOS	B											
Intersection V/C	0.458											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	17.3
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	291	175	174	411	362	389
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	291	175	174	411	362	389
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	44	44	103	91	97
Total Analysis Volume [veh/h]	291	175	174	411	362	389
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	61	0	29	27	0	29
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	55	55	55	55
g / C, Green / Cycle	0.30	0.61	0.61	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.27	0.05	0.26	0.30	0.11
s, saturation flow rate [veh/h]	1697	3547	1583	1206	3547
c, Capacity [veh/h]	509	2168	968	761	2168
d1, Uniform Delay [s]	30.37	7.14	9.17	12.14	7.62
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.05	0.07	1.37	2.12	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.08	0.42	0.48	0.18
d, Delay for Lane Group [s/veh]	37.42	7.21	10.53	14.27	7.80
Lane Group LOS	D	A	B	B	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	10.37	0.65	4.16	4.58	1.55
50th-Percentile Queue Length [ft]	259.24	16.18	104.06	114.59	38.71
95th-Percentile Queue Length [veh]	15.65	1.17	7.49	8.09	2.79
95th-Percentile Queue Length [ft]	391.27	29.13	187.31	202.36	69.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.42	37.42	7.21	10.53	14.27	7.80
Movement LOS	D	D	A	B	B	A
d_A, Approach Delay [s/veh]	37.42		9.54		10.92	
Approach LOS	D		A		B	
d_I, Intersection Delay [s/veh]	17.32					
Intersection LOS	B					
Intersection V/C	0.631					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	177.4
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.660

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	306	65	649	0	1122	408	434	1315	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	306	65	649	0	1122	408	434	1315	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	77	16	162	0	281	102	109	329	0
Total Analysis Volume [veh/h]	0	0	0	306	65	649	0	1122	408	434	1315	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		49	49	49	33	33	33	33
g / C, Green / Cycle		0.54	0.54	0.54	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate		0.17	0.23	0.21	0.29	0.31	1.28	0.26
s, saturation flow rate [veh/h]		1774	1626	1583	3547	1632	339	5074
c, Capacity [veh/h]		963	883	860	1305	601	101	1867
d1, Uniform Delay [s]		11.33	12.18	11.94	25.19	26.10	44.35	24.22
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.87	1.49	1.36	1.06	3.47	1510.29	0.49
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.32	0.42	0.40	0.78	0.85	4.31	0.70
d, Delay for Lane Group [s/veh]		12.20	13.67	13.31	26.25	29.57	1554.64	24.72
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	yes	no	no	no	yes	no
50th-Percentile Queue Length [veh]		3.39	4.51	4.02	9.42	10.14	44.52	7.71
50th-Percentile Queue Length [ft]		84.76	112.85	100.58	235.46	253.49	1112.94	192.79
95th-Percentile Queue Length [veh]		6.10	8.00	7.24	14.45	15.36	77.07	12.27
95th-Percentile Queue Length [ft]		152.57	199.96	181.05	361.29	384.05	1926.65	306.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	12.20	13.67	13.48	0.00	26.55	29.57	1554.64	24.72	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			13.11			27.36			404.36		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	177.35											
Intersection LOS	F											
Intersection V/C	1.660											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	65.6
Analysis Method:	HCM2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.053

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	398	223	333	105	6	408	95	1160	197	52	937	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	398	223	333	105	6	408	95	1160	197	52	937	67
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	56	83	26	2	102	24	290	49	13	234	17
Total Analysis Volume [veh/h]	398	223	333	105	6	408	95	1160	197	52	937	67
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	25	0	0	25	0	9	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	21	21	21	22	22	22	30	30	30
g / C, Green / Cycle	0.30	0.30	0.23	0.23	0.23	0.25	0.25	0.25	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.22	0.33	0.06	0.00	0.26	0.17	0.26	0.26	0.08	0.19	0.19
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	559	3547	1728	662	3547	1800
c, Capacity [veh/h]	531	505	412	433	368	122	883	430	241	1189	603
d1, Uniform Delay [s]	28.52	31.58	28.25	26.67	34.62	43.61	33.86	33.86	23.71	24.53	24.55
k, delay calibration	0.26	0.50	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.09	70.80	0.32	0.01	79.93	38.07	39.06	52.12	2.05	1.91	3.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

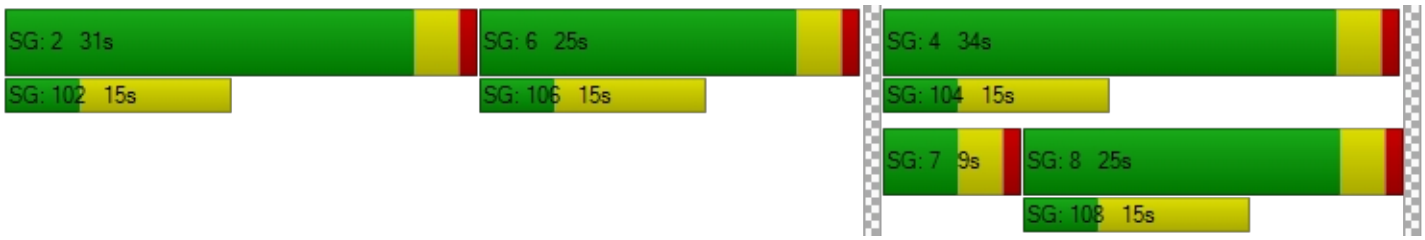
X, volume / capacity	0.75	1.10	0.25	0.01	1.11	0.78	1.03	1.03	0.22	0.56	0.56
d, Delay for Lane Group [s/veh]	33.61	102.38	28.57	26.68	114.55	81.68	72.92	85.98	25.76	26.44	28.29
Lane Group LOS	C	F	C	C	F	F	F	F	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.26	20.47	1.86	0.10	15.98	3.39	14.15	15.35	0.87	5.96	6.37
50th-Percentile Queue Length [ft]	206.56	511.76	46.45	2.49	399.44	84.74	353.84	383.74	21.87	148.91	159.29
95th-Percentile Queue Length [veh]	12.98	29.60	3.34	0.18	23.85	6.10	20.71	22.19	1.57	9.96	10.51
95th-Percentile Queue Length [ft]	324.41	740.07	83.61	4.49	596.18	152.53	517.71	554.82	39.37	248.97	262.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.61	102.38	102.38	28.57	26.68	114.55	81.68	75.70	85.98	25.76	26.98	28.29
Movement LOS	C	F	F	C	C	F	F	E	F	C	C	C
d_A, Approach Delay [s/veh]	73.69			96.14			77.49			27.00		
Approach LOS	E			F			E			C		
d_I, Intersection Delay [s/veh]	65.62											
Intersection LOS	E											
Intersection V/C	1.053											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.375

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	976	363	0	0	0	530	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	976	363	0	0	0	530	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	244	91	0	0	0	133	0
Total Analysis Volume [veh/h]	0	0	0	0	0	976	363	0	0	0	530	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	19	15	0	0	0	56	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		15	12	51
g / C, Green / Cycle		0.17	0.14	0.56
(v / s)_i Volume / Saturation Flow Rate		0.12	0.11	0.10
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1411	469	2861
d1, Uniform Delay [s]		35.35	37.58	9.57
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.62	2.76	0.14
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.69	0.77	0.19
d, Delay for Lane Group [s/veh]		35.96	40.34	9.71
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		4.01	3.98	1.62
50th-Percentile Queue Length [ft]		100.32	99.54	40.41
95th-Percentile Queue Length [veh]		7.22	7.17	2.91
95th-Percentile Queue Length [ft]		180.58	179.17	72.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	35.96	40.34	0.00	0.00	0.00	9.71	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			35.96			40.34			9.71		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	29.37											
Intersection LOS	C											
Intersection V/C	0.375											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.529

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	237	753	394	0	0	711	53	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	237	753	394	0	0	711	53	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	59	188	99	0	0	178	13	0	0	0
Total Analysis Volume [veh/h]	0	0	237	753	394	0	0	711	53	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	17	23	40	0	0	50	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	43	23	70	12	12	
g / C, Green / Cycle	0.48	0.25	0.78	0.13	0.13	
(v / s)_i Volume / Saturation Flow Rate	0.15	0.22	0.11	0.09	0.09	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1755	
c, Capacity [veh/h]	765	864	2761	896	232	
d1, Uniform Delay [s]	14.12	32.28	2.48	37.20	37.07	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.23	2.90	0.11	0.93	3.15	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

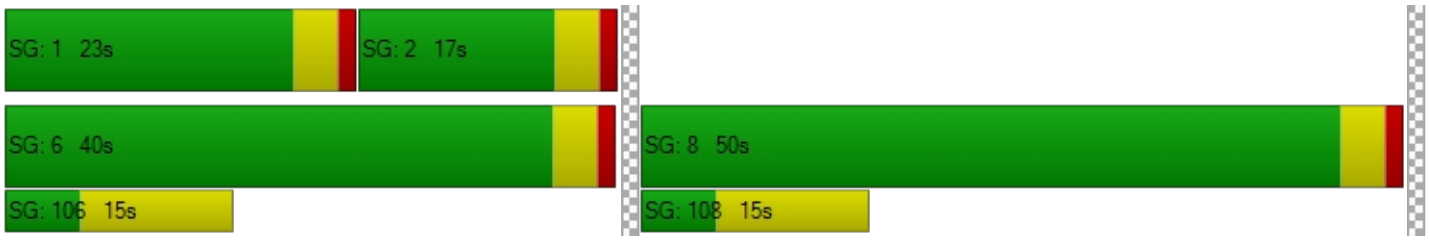
X, volume / capacity	0.31	0.87	0.14	0.68	0.66	
d, Delay for Lane Group [s/veh]	14.35	35.18	2.59	38.13	40.21	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	2.85	7.97	0.63	3.21	3.35	
50th-Percentile Queue Length [ft]	71.13	199.34	15.70	80.37	83.72	
95th-Percentile Queue Length [veh]	5.12	12.60	1.13	5.79	6.03	
95th-Percentile Queue Length [ft]	128.03	315.11	28.27	144.66	150.70	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	14.35	35.18	2.59	0.00	0.00	38.42	40.21	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	14.35			23.98			38.54			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	28.10											
Intersection LOS	C											
Intersection V/C	0.529											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.286

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	542	84	0	0	0	386	122	0	0	0	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	542	84	0	0	0	386	122	0	0	0	131
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	136	21	0	0	0	97	31	0	0	0	33
Total Analysis Volume [veh/h]	0	542	84	0	0	0	386	122	0	0	0	131
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	22	0	0	0	0	0	68	0	0	0	68
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	65	65		17	17	17
g / C, Green / Cycle	0.72	0.72		0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12		0.14	0.03	0.08
s, saturation flow rate [veh/h]	3547	1739		2741	3547	1583
c, Capacity [veh/h]	2554	1253		535	677	302
d1, Uniform Delay [s]	3.99	4.00		36.41	30.50	32.10
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.29		1.85	0.13	0.98
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.17		0.72	0.18	0.43
d, Delay for Lane Group [s/veh]	4.13	4.29		38.26	30.62	33.09
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	1.02	1.07		4.17	1.11	2.56
50th-Percentile Queue Length [ft]	25.45	26.79		104.35	27.70	64.00
95th-Percentile Queue Length [veh]	1.83	1.93		7.51	1.99	4.61
95th-Percentile Queue Length [ft]	45.82	48.23		187.83	49.85	115.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.16	4.29	0.00	0.00	0.00	38.26	30.62	0.00	0.00	0.00	33.09
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	4.18			0.00			36.43			33.09		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	20.12											
Intersection LOS	C											
Intersection V/C	0.286											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.279

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	196	22	107	206	68	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	196	22	107	206	68	202
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	6	27	52	17	51
Total Analysis Volume [veh/h]	196	22	107	206	68	202
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	60	0	30	63	0	30
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	69	69	69	69
g / C, Green / Cycle	0.15	0.76	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.12	0.03	0.13	0.05	0.06
s, saturation flow rate [veh/h]	1753	3547	1583	1281	3547
c, Capacity [veh/h]	259	2707	1208	1008	2707
d1, Uniform Delay [s]	37.25	2.60	2.90	3.61	2.67
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.24	0.03	0.31	0.13	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.04	0.17	0.07	0.07
d, Delay for Lane Group [s/veh]	44.49	2.63	3.20	3.74	2.73
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	5.10	0.18	0.82	0.32	0.35
50th-Percentile Queue Length [ft]	127.53	4.44	20.53	8.10	8.63
95th-Percentile Queue Length [veh]	8.81	0.32	1.48	0.58	0.62
95th-Percentile Queue Length [ft]	220.13	7.99	36.95	14.58	15.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.49	44.49	2.63	3.20	3.74	2.73
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.49		3.00		2.98	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	14.29					
Intersection LOS	B					
Intersection V/C	0.279					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	55.7
Analysis Method:	HCM2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.110

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	271	48	490	0	1156	597	230	1227	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	271	48	490	0	1156	597	230	1227	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	12	123	0	289	149	58	307	0
Total Analysis Volume [veh/h]	0	0	0	271	48	490	0	1156	597	230	1227	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		42	42	42	40	40	40	40
g / C, Green / Cycle		0.47	0.47	0.47	0.44	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate		0.15	0.17	0.17	0.33	0.38	0.84	0.24
s, saturation flow rate [veh/h]		1774	1627	1583	3547	1583	273	5074
c, Capacity [veh/h]		835	766	745	1562	697	102	2234
d1, Uniform Delay [s]		14.85	15.10	15.14	20.88	22.59	44.15	18.56
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.03	1.28	1.34	0.71	3.17	595.95	0.21
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.32	0.35	0.36	0.74	0.86	2.26	0.55
d, Delay for Lane Group [s/veh]		15.89	16.39	16.48	21.58	25.76	640.10	18.77
Lane Group LOS		B	B	B	C	C	F	B
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		3.55	3.64	3.60	9.66	11.23	19.12	6.02
50th-Percentile Queue Length [ft]		88.73	91.01	89.96	241.40	280.87	477.93	150.55
95th-Percentile Queue Length [veh]		6.39	6.55	6.48	14.75	16.73	34.41	10.05
95th-Percentile Queue Length [ft]		159.72	163.81	161.93	368.80	418.30	860.28	251.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	15.89	16.39	16.44	0.00	21.58	25.76	640.10	18.77	0.00
Movement LOS				B	B	B		C	C	F	B	
d_A, Approach Delay [s/veh]	0.00			16.25			23.00			116.85		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	55.67											
Intersection LOS	E											
Intersection V/C	1.110											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	28.3
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	495	116	199	56	7	6	79	925	425	120	927	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	495	116	199	56	7	6	79	925	425	120	927	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	124	29	50	14	2	2	20	231	106	30	232	12
Total Analysis Volume [veh/h]	495	116	199	56	7	6	79	925	425	120	927	49
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	1	1	1	43	43	43	52	52	52
g / C, Green / Cycle	0.27	0.27	0.02	0.02	0.02	0.48	0.48	0.48	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.23	0.24	0.03	0.00	0.00	0.14	0.26	0.27	0.21	0.18	0.18
s, saturation flow rate [veh/h]	1774	1696	1774	1863	1583	574	3547	1583	583	3547	1815
c, Capacity [veh/h]	480	459	29	30	26	286	1708	763	377	2058	1053
d1, Uniform Delay [s]	31.18	31.37	44.32	43.77	43.77	21.42	16.37	16.54	11.07	9.70	9.71
k, delay calibration	0.11	0.12	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.72	5.90	456.45	3.88	4.61	2.38	1.24	2.93	2.21	0.40	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.87	1.96	0.23	0.23	0.28	0.54	0.56	0.32	0.31	0.31
d, Delay for Lane Group [s/veh]	35.90	37.27	500.76	47.65	48.38	23.79	17.61	19.47	13.28	10.10	10.49
Lane Group LOS	D	D	F	D	D	C	B	B	B	B	B
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.83	8.79	4.26	0.19	0.16	1.39	6.58	6.46	1.21	3.11	3.30
50th-Percentile Queue Length [ft]	220.80	219.78	106.55	4.63	4.09	34.74	164.57	161.50	30.25	77.79	82.57
95th-Percentile Queue Length [veh]	13.71	13.65	7.67	0.33	0.29	2.50	10.79	10.63	2.18	5.60	5.95
95th-Percentile Queue Length [ft]	342.65	341.35	191.80	8.33	7.36	62.53	269.76	265.70	54.44	140.02	148.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.15	37.27	37.27	500.76	47.65	48.38	23.79	17.61	19.47	13.28	10.22	10.49
Movement LOS	D	D	D	F	D	D	C	B	B	B	B	B
d_A, Approach Delay [s/veh]	36.58			415.46			18.51			10.57		
Approach LOS	D			F			B			B		
d_I, Intersection Delay [s/veh]	28.30											
Intersection LOS	C											
Intersection V/C	0.692											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Long Range with Project Conditions (Year 2035)

LONG RANGE WITH PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	8,702	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}893} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{34.6} \text{ pc/mi/ln}$$

Speed (S): **54.8** mi/h

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

LONG RANGE WITH PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,939	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}510} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{27.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

LONG RANGE WITH PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Northbound

North of Exposition Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,308	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = ____ \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}025} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{37.7} \text{ pc/mi/ln}$$

Speed (S): **53.8** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-1. I-110 Southbound

North of Exposition Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,108	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}981} \text{ pc/h/ln}$$

Speed (S): **54.2** mi/h

Density (D): $\frac{v_p}{S}$ = **36.6** pc/mi/ln

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,769	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}841} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{33.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	6,398	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}740} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{31.6} \text{ pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Northbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,277	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}979} \text{ pc/h/ln}$$

Speed (S): **54.2** mi/h

Density (D):

$$D = \frac{v_p}{S} = \mathbf{36.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-2. I-110 Southbound

between Exposition Boulevard & Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,834	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}130} \text{ pc/h/ln}$$

Speed (S): **52.3** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{40.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,567	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}058} \text{ pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{38.6} \text{ pc/mi/ln}$$

Speed (S): **53.4** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,781	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}693}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{30.8}\ \text{pc/mi/ln}$$

Level of Service (LOS): **D**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Northbound

South of Martin Luther King Jr. Boulevard

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	7,532	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	4.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}048}\ \text{pc/h/ln}$$

Density (D):

$$\frac{v_p}{S} = \mathbf{38.3}\ \text{pc/mi/ln}$$

Speed (S): **53.5** mi/h

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-3. I-110 Southbound

South of Martin Luther King Jr. Boulevard

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	9,901	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	5.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84}$ = _____ mi/h

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}154} \text{ pc/h/ln}$$

Speed (S): **51.9** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{41.5} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	2,129	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}158} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{21.1} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

LONG RANGE WITH PROJECT CONDITIONS (YEAR 2035)

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	3,992	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%			
Grade Length:		mi	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{2{,}171} \text{ pc/h/ln}$$

Speed (S): **51.6** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{42.1} \text{ pc/mi/ln}$$

Level of Service (LOS): **E**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Northbound

South of 39th Street

Weekday Evening Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,925	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{_____}\ \text{mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}047}\ \text{pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{19.0}\ \text{pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Lucas Museum of Narrative Art

Highway Capacity Manual 2010 - Basic Freeway Segments Worksheet

FS-4. I-110 Express Lanes Southbound

South of 39th Street

Saturday Midday Peak Hour

SPEED AND FLOW INPUTS

Flow Inputs			Speed Inputs		
Volume (V):	1,989	veh/h	[a] Free Flow Speed:	55.0	mph
Peak Hour Factor (PHF):	0.940		Lane Width:		ft
% Trucks & Buses (P_T):	4.52	%	Right-shoulder Lateral Clearance:		ft
% RVs (P_R):	0.00	%	Number of Ramps in 6 miles Centered on Segment:		ramps
Grade Length:		mi			
Grade %:		%			
Terrain Type:	Level		Other Inputs		
Driver Type:	Commuter/Weekday		Number of Lanes:	2.0	lanes

SPEED AND FLOW ADJUSTMENT CALCULATIONS

Flow Adjustment Calculations

Driver Population Factor (f_p): 1.00

Passenger Car Equivalents

for Trucks & Buses (E_T): 1.5

for RVs (E_R): 1.2

Heavy Vehicle Factor (f_{HV}):

$$\frac{1}{1 + P_T(E_T - 1) + P_R(E_R - 1)} = 0.978$$

Speed Adjustment Calculations

Lane Width (f_{LW}): _____ mi/h

Lateral Clearance (f_{LC}): _____ mi/h

Total Ramp Density (TRD): _____ ramps/mi

Free-Flow Speed:

$$75.4 - f_{LW} - f_{LC} - 3.22TRD^{0.84} = \text{____} \text{ mi/h}$$

LEVEL OF SERVICE AND PERFORMANCE MEASURES

Flow Rate (v_p):

$$\frac{V}{PHF * N * f_{HV} * f_p} = \mathbf{1{,}082} \text{ pc/h/ln}$$

Speed (S): **55.0** mi/h

Density (D):

$$\frac{v_p}{S} = \mathbf{19.7} \text{ pc/mi/ln}$$

Level of Service (LOS): **C**

Notes: Methodology from *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
Adjustment factors from HCM 2010 Chapter 11 as follows: LOS, S, FFS, v_p from Exhibits 11-5 and 11-6; E_R/E_T from Exhibits 11-10 through 11-13; f_{LW} from Exhibit 11-8; f_{LC} from Exhibit 11-9; f_p from Page 11-18.

[a] Free Flow Speed of 55 mi/h was used for segments at Caltrans' request.

Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	1582	694	0	0	0	447	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1582	694	0	0	0	447	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	396	174	0	0	0	112	0
Total Analysis Volume [veh/h]	0	0	0	0	0	1582	694	0	0	0	447	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	21	22	0	0	0	47	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		24	21	33
g / C, Green / Cycle		0.27	0.24	0.37
(v / s)_i Volume / Saturation Flow Rate		0.19	0.20	0.09
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		2254	813	1849
d1, Uniform Delay [s]		29.84	32.95	19.98
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.40	2.67	0.31
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

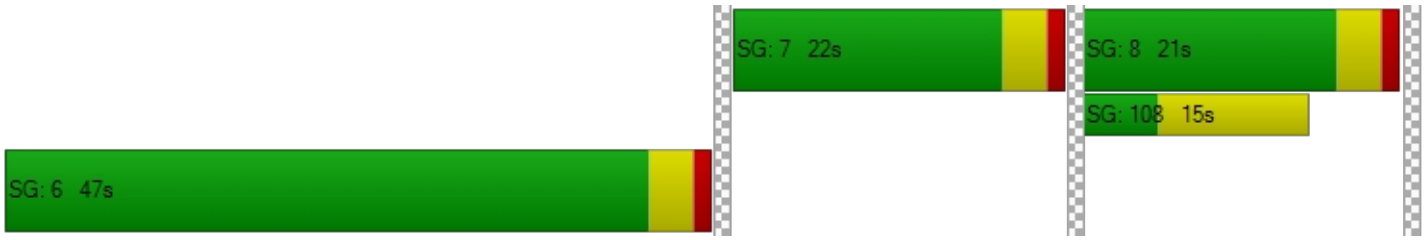
X, volume / capacity		0.70	0.85	0.24
d, Delay for Lane Group [s/veh]		30.25	35.63	20.29
Lane Group LOS		C	D	C
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		6.08	7.36	2.18
50th-Percentile Queue Length [ft]		151.94	184.09	54.41
95th-Percentile Queue Length [veh]		10.12	11.81	3.92
95th-Percentile Queue Length [ft]		253.02	295.35	97.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	30.25	35.63	0.00	0.00	0.00	20.29	0.00
Movement LOS						C	D				C	
d_A, Approach Delay [s/veh]	0.00			30.25			35.63			20.29		
Approach LOS	A			C			D			C		
d_I, Intersection Delay [s/veh]	29.98											
Intersection LOS	C											
Intersection V/C	0.550											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.655

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	328	868	945	0	0	826	88	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	328	868	945	0	0	826	88	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	82	217	236	0	0	207	22	0	0	0
Total Analysis Volume [veh/h]	0	0	328	868	945	0	0	826	88	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	20	24	44	0	0	46	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	39	25	68	14	14	
g / C, Green / Cycle	0.43	0.28	0.76	0.15	0.15	
(v / s)_i Volume / Saturation Flow Rate	0.21	0.25	0.27	0.11	0.11	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1717	
c, Capacity [veh/h]	681	971	2682	1047	266	
d1, Uniform Delay [s]	18.41	30.98	3.64	35.98	35.91	
k, delay calibration	0.17	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.84	3.18	0.36	0.86	3.16	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.48	0.89	0.35	0.70	0.69	
d, Delay for Lane Group [s/veh]	19.25	34.15	4.00	36.83	39.07	
Lane Group LOS	B	C	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	4.86	9.16	2.20	3.80	3.96	
50th-Percentile Queue Length [ft]	121.49	228.91	54.97	94.95	99.05	
95th-Percentile Queue Length [veh]	8.48	14.12	3.96	6.84	7.13	
95th-Percentile Queue Length [ft]	211.88	352.97	98.94	170.91	178.29	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	19.25	34.15	4.00	0.00	0.00	37.09	39.07	0.00	0.00	0.00
Movement LOS			B	C	A			D	D			
d_A, Approach Delay [s/veh]	19.25			18.44			37.28			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	24.16											
Intersection LOS	C											
Intersection V/C	0.655											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	19.5
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			yes			yes		

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	866	284	0	0	0	570	372	0	0	0	186
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	866	284	0	0	0	570	372	0	0	0	186
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	217	71	0	0	0	143	93	0	0	0	47
Total Analysis Volume [veh/h]	0	866	284	0	0	0	570	372	0	0	0	186
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	33	0	0	0	0	0	57	0	0	0	57
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	59	59		23	23	23
g / C, Green / Cycle	0.65	0.65		0.26	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.22	0.23		0.21	0.10	0.12
s, saturation flow rate [veh/h]	3547	1647		2741	3547	1583
c, Capacity [veh/h]	2314	1075		730	917	410
d1, Uniform Delay [s]	6.93	7.08		33.06	27.63	28.02
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.93		1.86	0.29	0.79
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

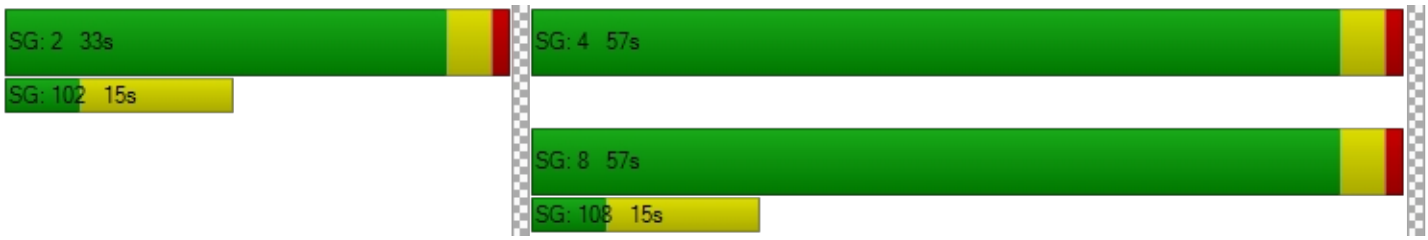
X, volume / capacity	0.33	0.36		0.78	0.41	0.45
d, Delay for Lane Group [s/veh]	7.32	8.01		34.92	27.92	28.81
Lane Group LOS	A	A		C	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	2.95	3.16		6.02	3.29	3.39
50th-Percentile Queue Length [ft]	73.74	79.07		150.54	82.35	84.83
95th-Percentile Queue Length [veh]	5.31	5.69		10.05	5.93	6.11
95th-Percentile Queue Length [ft]	132.73	142.33		251.16	148.22	152.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	7.40	8.01	0.00	0.00	0.00	34.92	27.92	0.00	0.00	0.00	28.81
Movement LOS		A	A				C	C				C
d_A, Approach Delay [s/veh]	7.55			0.00			32.15			28.81		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	19.46											
Intersection LOS	B											
Intersection V/C	0.484											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	303	175	174	435	362	389
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	303	175	174	435	362	389
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	44	44	109	91	97
Total Analysis Volume [veh/h]	303	175	174	435	362	389
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	61	0	29	28	0	29
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	54	54	54	54
g / C, Green / Cycle	0.31	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.28	0.05	0.27	0.30	0.11
s, saturation flow rate [veh/h]	1699	3547	1583	1206	3547
c, Capacity [veh/h]	521	2144	957	753	2144
d1, Uniform Delay [s]	30.06	7.39	9.69	12.54	7.89
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.02	0.07	1.56	2.19	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.08	0.45	0.48	0.18
d, Delay for Lane Group [s/veh]	37.08	7.46	11.24	14.73	8.08
Lane Group LOS	D	A	B	B	A
Critical Lane Group	yes	no	no	yes	no
50th-Percentile Queue Length [veh]	10.61	0.66	4.62	4.68	1.59
50th-Percentile Queue Length [ft]	265.21	16.58	115.43	117.08	39.66
95th-Percentile Queue Length [veh]	15.95	1.19	8.14	8.23	2.86
95th-Percentile Queue Length [ft]	398.74	29.84	203.52	205.81	71.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.08	37.08	7.46	11.24	14.73	8.08
Movement LOS	D	D	A	B	B	A
d_A, Approach Delay [s/veh]	37.08		10.16		11.28	
Approach LOS	D		B		B	
d_I, Intersection Delay [s/veh]	17.62					
Intersection LOS	B					
Intersection V/C	0.638					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	176.0
Analysis Method:	HCM2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.685

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	306	65	657	0	1122	424	434	1323	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	306	65	657	0	1122	424	434	1323	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	77	16	164	0	281	106	109	331	0
Total Analysis Volume [veh/h]	0	0	0	306	65	657	0	1122	424	434	1323	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		48	48	48	34	34	34	34
g / C, Green / Cycle		0.54	0.54	0.54	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate		0.17	0.23	0.22	0.29	0.32	1.30	0.26
s, saturation flow rate [veh/h]		1774	1625	1583	3547	1627	333	5074
c, Capacity [veh/h]		955	874	852	1322	606	101	1892
d1, Uniform Delay [s]		11.58	12.50	12.23	24.90	25.86	44.34	23.90
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.89	1.57	1.41	1.03	3.45	1509.26	0.48
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.32	0.43	0.40	0.78	0.85	4.30	0.70
d, Delay for Lane Group [s/veh]		12.47	14.07	13.64	25.93	29.31	1553.60	24.37
Lane Group LOS		B	B	B	C	C	F	C
Critical Lane Group		no	yes	no	no	no	yes	no
50th-Percentile Queue Length [veh]		3.44	4.67	4.12	9.46	10.21	44.51	7.70
50th-Percentile Queue Length [ft]		85.98	116.71	103.10	236.55	255.25	1112.81	192.46
95th-Percentile Queue Length [veh]		6.19	8.21	7.42	14.51	15.45	77.15	12.25
95th-Percentile Queue Length [ft]		154.77	205.30	185.57	362.67	386.26	1928.82	306.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	12.47	14.07	13.85	0.00	26.21	29.31	1553.60	24.37	0.00
Movement LOS				B	B	B		C	C	F	C	
d_A, Approach Delay [s/veh]	0.00			13.45			27.06			402.11		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	175.98											
Intersection LOS	F											
Intersection V/C	1.685											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	65.6
Analysis Method:	HCM2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.053

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	406	223	333	105	6	408	95	1160	197	52	937	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	406	223	333	105	6	408	95	1160	197	52	937	67
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	102	56	83	26	2	102	24	290	49	13	234	17
Total Analysis Volume [veh/h]	406	223	333	105	6	408	95	1160	197	52	937	67
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	31	0	0	25	0	0	25	0	9	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	21	21	21	22	22	22	30	30	30
g / C, Green / Cycle	0.30	0.30	0.23	0.23	0.23	0.25	0.25	0.25	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.23	0.33	0.06	0.00	0.26	0.17	0.26	0.26	0.08	0.19	0.19
s, saturation flow rate [veh/h]	1774	1685	1774	1863	1583	559	3547	1728	662	3547	1800
c, Capacity [veh/h]	531	505	412	433	368	122	883	430	241	1189	603
d1, Uniform Delay [s]	28.69	31.58	28.25	26.67	34.62	43.61	33.86	33.86	23.71	24.53	24.55
k, delay calibration	0.27	0.50	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.70	70.80	0.32	0.01	79.93	38.07	39.06	52.12	2.05	1.91	3.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

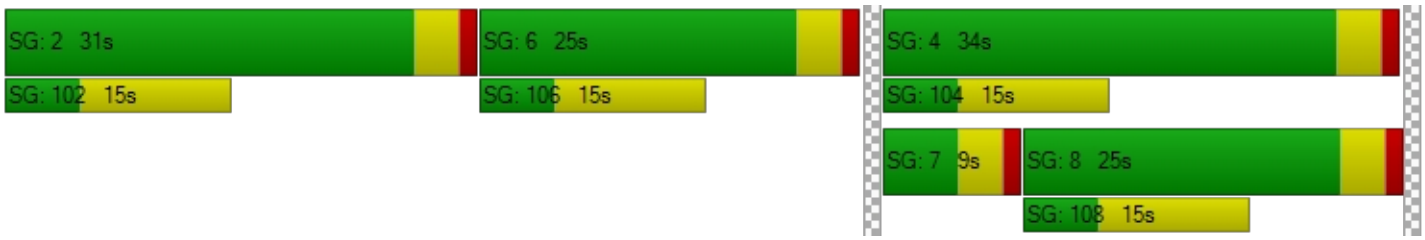
X, volume / capacity	0.76	1.10	0.25	0.01	1.11	0.78	1.03	1.03	0.22	0.56	0.56
d, Delay for Lane Group [s/veh]	34.39	102.38	28.57	26.68	114.55	81.68	72.92	85.98	25.76	26.44	28.29
Lane Group LOS	C	F	C	C	F	F	F	F	C	C	C
Critical Lane Group	no	yes	no	no	yes	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	8.55	20.47	1.86	0.10	15.98	3.39	14.15	15.35	0.87	5.96	6.37
50th-Percentile Queue Length [ft]	213.73	511.76	46.45	2.49	399.44	84.74	353.84	383.74	21.87	148.91	159.29
95th-Percentile Queue Length [veh]	13.34	29.60	3.34	0.18	23.85	6.10	20.71	22.19	1.57	9.96	10.51
95th-Percentile Queue Length [ft]	333.61	740.07	83.61	4.49	596.18	152.53	517.71	554.82	39.37	248.97	262.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.39	102.38	102.38	28.57	26.68	114.55	81.68	75.70	85.98	25.76	26.98	28.29
Movement LOS	C	F	F	C	C	F	F	E	F	C	C	C
d_A, Approach Delay [s/veh]	73.69			96.14			77.49			27.00		
Approach LOS	E			F			E			C		
d_I, Intersection Delay [s/veh]	65.63											
Intersection LOS	E											
Intersection V/C	1.053											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#15: Flower / I-110 SB Off-ramp & Exposition

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Approach	Northbound			Southbound			Westbound			Southwestbound		
Lane Configuration												
Turning Movement	Thru	Thru	Right	Left	Left	Thru	Left	Right	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			no			no			no		

Volumes

Name	Flower St			Flower St			Exposition Blvd			I-110 SB Off-ramp		
Base Volume Input [veh/h]	0	0	0	0	0	976	371	0	0	0	576	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	976	371	0	0	0	576	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	244	93	0	0	0	144	0
Total Analysis Volume [veh/h]	0	0	0	0	0	976	371	0	0	0	576	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Split	Permiss	Permiss	Permiss	Split	Permiss
Signal Group	0	0	0	0	0	8	7	0	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	0	0	0	0	5	5	0	0	0	5	0
Maximum Green [s]	0	0	0	0	0	30	30	0	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	0	31	29	0	0	0	30	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	5	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	0	10	10	0	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0
Minimum Recall						no	no				no	
Maximum Recall						no	no				no	
Pedestrian Recall						no	no				no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00
g_i, Effective Green Time [s]		15	12	51
g / C, Green / Cycle		0.17	0.14	0.56
(v / s)_i Volume / Saturation Flow Rate		0.12	0.11	0.11
s, saturation flow rate [veh/h]		8457	3445	5074
c, Capacity [veh/h]		1411	477	2849
d1, Uniform Delay [s]		35.35	37.47	9.77
k, delay calibration		0.11	0.11	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00
d2, Incremental Delay [s]		0.62	2.77	0.16
d3, Initial Queue Delay [s]		0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00

Lane Group Results

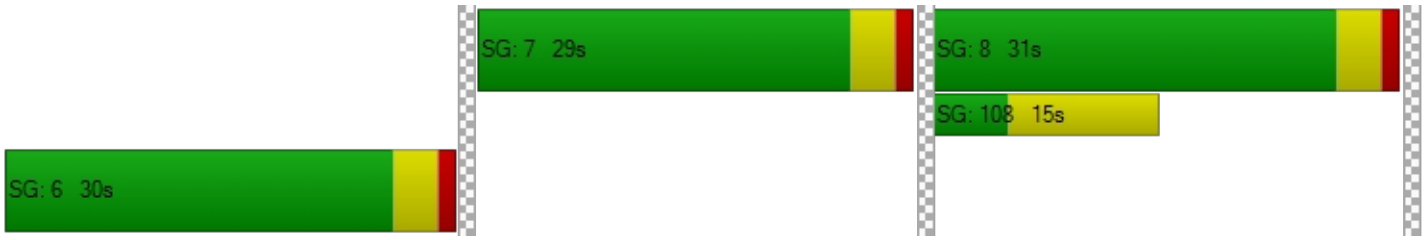
X, volume / capacity		0.69	0.78	0.20
d, Delay for Lane Group [s/veh]		35.97	40.23	9.93
Lane Group LOS		D	D	A
Critical Lane Group		yes	yes	yes
50th-Percentile Queue Length [veh]		4.01	4.07	1.79
50th-Percentile Queue Length [ft]		100.33	101.66	44.71
95th-Percentile Queue Length [veh]		7.22	7.32	3.22
95th-Percentile Queue Length [ft]		180.59	182.99	80.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	35.97	40.23	0.00	0.00	0.00	9.93	0.00
Movement LOS						D	D				A	
d_A, Approach Delay [s/veh]	0.00			35.97			40.23			9.93		
Approach LOS	A			D			D			A		
d_I, Intersection Delay [s/veh]	28.99											
Intersection LOS	C											
Intersection V/C	0.388											

Sequence

Ring 1	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#16: Flower & 37th / I-110 SB On-ramp

Control Type:	Signalized	Delay (sec / veh):	28.4
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.544

Intersection Setup

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			no		

Volumes

Name	Flower St			Flower St			37th St / Exposition Blvd			37th St		
Base Volume Input [veh/h]	0	0	237	753	394	0	0	816	53	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	237	753	394	0	0	816	53	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	59	188	99	0	0	204	13	0	0	0
Total Analysis Volume [veh/h]	0	0	237	753	394	0	0	816	53	0	0	0
Presence of On-Street Parking	no		no	no		no	no		no			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Protecte	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	2	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	5	5	5	0	0	5	0	0	0	0
Maximum Green [s]	0	0	30	30	30	0	0	30	0	0	0	0
Amber [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Split [s]	0	0	17	23	40	0	0	50	0	0	0	0
Vehicle Extension [s]	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Walk [s]	0	0	5	0	5	0	0	5	0	0	0	0
Pedestrian Clearance [s]	0	0	10	0	10	0	0	10	0	0	0	0
I1, Start-Up Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Minimum Recall			no	no	no			no				
Maximum Recall			no	no	no			no				
Pedestrian Recall			no	no	no			no				
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	R	L	C	C	C	
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	42	23	69	13	13	
g / C, Green / Cycle	0.47	0.25	0.76	0.15	0.15	
(v / s)_i Volume / Saturation Flow Rate	0.15	0.22	0.11	0.10	0.10	
s, saturation flow rate [veh/h]	1583	3445	3547	6765	1768	
c, Capacity [veh/h]	741	864	2707	1001	261	
d1, Uniform Delay [s]	14.98	32.28	2.84	36.38	36.20	
k, delay calibration	0.11	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.25	2.90	0.11	0.88	2.90	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

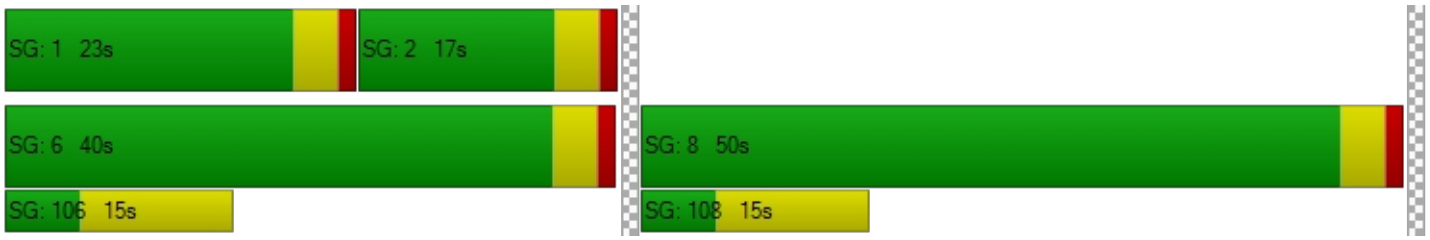
X, volume / capacity	0.32	0.87	0.15	0.69	0.66	
d, Delay for Lane Group [s/veh]	15.23	35.18	2.95	37.26	39.10	
Lane Group LOS	B	D	A	D	D	
Critical Lane Group	yes	yes	no	yes	no	
50th-Percentile Queue Length [veh]	2.96	7.97	0.72	3.63	3.76	
50th-Percentile Queue Length [ft]	73.89	199.34	17.88	90.67	93.96	
95th-Percentile Queue Length [veh]	5.32	12.60	1.29	6.53	6.76	
95th-Percentile Queue Length [ft]	133.00	315.11	32.18	163.20	169.12	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	15.23	35.18	2.95	0.00	0.00	37.53	39.10	0.00	0.00	0.00
Movement LOS			B	D	A			D	D			
d_A, Approach Delay [s/veh]	15.23			24.11			37.63			0.00		
Approach LOS	B			C			D			A		
d_I, Intersection Delay [s/veh]	28.39											
Intersection LOS	C											
Intersection V/C	0.544											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#17: Hope / I-110 NB Off-ramp & 37th

Control Type:	Signalized	Delay (sec / veh):	20.8
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.325

Intersection Setup

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			no			yes			yes	

Volumes

Name	I-110 NB Off-ramp			Hope St			37th St			37th St		
Base Volume Input [veh/h]	0	550	84	0	0	0	479	122	0	0	0	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	550	84	0	0	0	479	122	0	0	0	131
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	138	21	0	0	0	120	31	0	0	0	33
Total Analysis Volume [veh/h]	0	550	84	0	0	0	479	122	0	0	0	131
Presence of On-Street Parking	no		no				no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte
Signal Group	0	2	0	0	0	0	0	8	0	0	0	4
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	0	0	0	5	0	0	0	5
Maximum Green [s]	0	30	0	0	0	0	0	30	0	0	0	30
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Split [s]	0	19	0	0	0	0	0	71	0	0	0	71
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	0	5
Pedestrian Clearance [s]	0	10	0	0	0	0	0	10	0	0	0	10
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Minimum Recall		no						no				no
Maximum Recall		no						no				no
Pedestrian Recall		no						no				no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C		L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00
g_i, Effective Green Time [s]	62	62		20	20	20
g / C, Green / Cycle	0.69	0.69		0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12		0.17	0.03	0.08
s, saturation flow rate [veh/h]	3547	1741		2741	3547	1583
c, Capacity [veh/h]	2431	1193		626	800	357
d1, Uniform Delay [s]	5.05	5.06		34.92	27.92	29.39
k, delay calibration	0.50	0.50		0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	0.32		1.98	0.09	0.63
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.18		0.76	0.15	0.37
d, Delay for Lane Group [s/veh]	5.21	5.39		36.90	28.01	30.02
Lane Group LOS	A	A		D	C	C
Critical Lane Group	no	yes		yes	no	no
50th-Percentile Queue Length [veh]	1.24	1.30		5.14	1.05	2.42
50th-Percentile Queue Length [ft]	31.11	32.56		128.59	26.26	60.38
95th-Percentile Queue Length [veh]	2.24	2.34		8.86	1.89	4.35
95th-Percentile Queue Length [ft]	56.00	58.61		221.57	47.27	108.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.25	5.39	0.00	0.00	0.00	36.90	28.01	0.00	0.00	0.00	30.02
Movement LOS		A	A				D	C				C
d_A, Approach Delay [s/veh]	5.27			0.00			35.10		30.02			
Approach LOS	A			A			D		C			
d_I, Intersection Delay [s/veh]	20.77											
Intersection LOS	C											
Intersection V/C	0.325											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#18: I-110 Express Lanes & 39th Street

Control Type:	Signalized	Delay (sec / veh):	14.8
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.320

Intersection Setup

Name	I-110 Express Lanes		39th Street		39th Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

Volumes

Name	I-110 Express Lanes		39th Street		39th Street	
Base Volume Input [veh/h]	220	22	107	243	68	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	220	22	107	243	68	202
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	6	27	61	17	51
Total Analysis Volume [veh/h]	220	22	107	243	68	202
Presence of On-Street Parking	no	no	no	no	no	no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Overlap	Permissive	Permissive
Signal Group	5	0	8	3	0	4
Auxiliary Signal Groups				3,8		
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	5	0	5	5	0	5
Maximum Green [s]	30	0	30	30	0	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0
Split [s]	59	0	31	66	0	31
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	10	0	0	10
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0
Minimum Recall	no		no	no		no
Maximum Recall	no		no	no		no
Pedestrian Recall	no		no	no		no
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	C	C	R	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	67	67	67	67
g / C, Green / Cycle	0.16	0.75	0.75	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.14	0.03	0.15	0.05	0.06
s, saturation flow rate [veh/h]	1755	3547	1583	1281	3547
c, Capacity [veh/h]	284	2658	1186	991	2658
d1, Uniform Delay [s]	36.62	2.91	3.33	3.97	2.99
k, delay calibration	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.20	0.03	0.39	0.13	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.04	0.20	0.07	0.08
d, Delay for Lane Group [s/veh]	43.82	2.94	3.72	4.11	3.05
Lane Group LOS	D	A	A	A	A
Critical Lane Group	yes	no	yes	no	no
50th-Percentile Queue Length [veh]	5.63	0.20	1.10	0.35	0.38
50th-Percentile Queue Length [ft]	140.84	4.92	27.48	8.73	9.57
95th-Percentile Queue Length [veh]	9.53	0.35	1.98	0.63	0.69
95th-Percentile Queue Length [ft]	238.16	8.86	49.46	15.71	17.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.82	43.82	2.94	3.72	4.11	3.05
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	43.82		3.48		3.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	14.75					
Intersection LOS	B					
Intersection V/C	0.320					

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#19: I-110 SB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	54.8
Analysis Method:	HCM2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.139

Intersection Setup

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	240.00	100.00	240.00	100.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		yes			yes			no			no	

Volumes

Name	I-110 SB On-ramp			I-110 SB Off-ramp			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	0	0	0	271	48	506	0	1156	622	230	1243	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	271	48	506	0	1156	622	230	1243	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	12	127	0	289	156	58	311	0
Total Analysis Volume [veh/h]	0	0	0	271	48	506	0	1156	622	230	1243	0
Presence of On-Street Parking				no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	0	15	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall					no			no			no	
Maximum Recall					no			no			no	
Pedestrian Recall					no			no			no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group		L	C	R	C	C	L	C
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		41	41	41	41	41	41	41
g / C, Green / Cycle		0.46	0.46	0.46	0.46	0.46	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate		0.15	0.17	0.17	0.33	0.39	0.86	0.24
s, saturation flow rate [veh/h]		1774	1625	1583	3547	1583	266	5074
c, Capacity [veh/h]		808	740	721	1615	721	102	2311
d1, Uniform Delay [s]		15.72	16.08	16.12	19.76	21.93	44.15	17.64
k, delay calibration		0.50	0.50	0.50	0.11	0.11	0.50	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.12	1.46	1.53	0.60	3.22	598.30	0.20
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.34	0.38	0.38	0.72	0.86	2.26	0.54
d, Delay for Lane Group [s/veh]		16.84	17.54	17.65	20.36	25.15	642.45	17.83
Lane Group LOS		B	B	B	C	C	F	B
Critical Lane Group		no	no	yes	no	no	yes	no
50th-Percentile Queue Length [veh]		3.68	3.91	3.88	9.31	11.61	19.14	5.92
50th-Percentile Queue Length [ft]		92.06	97.85	96.91	232.83	290.23	478.50	147.88
95th-Percentile Queue Length [veh]		6.63	7.04	6.98	14.32	17.20	34.45	9.90
95th-Percentile Queue Length [ft]		165.71	176.12	174.44	357.95	429.92	861.30	247.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	16.84	17.54	17.60	0.00	20.36	25.15	642.45	17.83	0.00
Movement LOS				B	B	B		C	C	F	B	
d_A, Approach Delay [s/veh]	0.00			17.34			22.04			115.36		
Approach LOS	A			B			C			F		
d_I, Intersection Delay [s/veh]	54.81											
Intersection LOS	D											
Intersection V/C	1.139											

Sequence

Ring 1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
#20: Hill / I-110 NB Ramps & MLK Jr.

Control Type:	Signalized	Delay (sec / veh):	28.6
Analysis Method:	HCM2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	350.00	100.00	100.00	100.00	170.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

Volumes

Name	I-110 NB Ramps			Hill St			MLK Jr. Blvd			MLK Jr. Blvd		
Base Volume Input [veh/h]	511	116	199	56	7	6	79	925	425	120	927	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	511	116	199	56	7	6	79	925	425	120	927	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	128	29	50	14	2	2	20	231	106	30	232	12
Total Analysis Volume [veh/h]	511	116	199	56	7	6	79	925	425	120	927	49
Presence of On-Street Parking	no		no	no		no	no		no	no		no
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	no
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	2	0	0	6	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	43	0	0	19	0	0	19	0	9	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		no			no			no		no	no	
Maximum Recall		no			no			no		no	no	
Pedestrian Recall		no			no			no		no	no	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	1	1	1	43	43	43	52	52	52
g / C, Green / Cycle	0.27	0.27	0.02	0.02	0.02	0.48	0.48	0.48	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.24	0.24	0.03	0.00	0.00	0.14	0.26	0.27	0.21	0.18	0.18
s, saturation flow rate [veh/h]	1774	1697	1774	1863	1583	574	3547	1583	585	3547	1815
c, Capacity [veh/h]	488	467	29	30	26	283	1690	754	375	2041	1044
d1, Uniform Delay [s]	30.94	31.15	44.32	43.77	43.77	21.83	16.70	16.88	11.31	9.93	9.93
k, delay calibration	0.12	0.13	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.94	6.24	456.45	3.88	4.61	2.45	1.28	3.03	2.24	0.41	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.87	1.96	0.23	0.23	0.28	0.55	0.56	0.32	0.32	0.32
d, Delay for Lane Group [s/veh]	35.88	37.39	500.77	47.65	48.38	24.28	17.98	19.91	13.55	10.34	10.73
Lane Group LOS	D	D	F	D	D	C	B	B	B	B	B
Critical Lane Group	no	yes	yes	no	no	no	no	yes	yes	no	no
50th-Percentile Queue Length [veh]	9.01	9.01	4.26	0.19	0.16	1.41	6.67	6.55	1.23	3.16	3.35
50th-Percentile Queue Length [ft]	225.13	225.13	106.56	4.63	4.09	35.18	166.77	163.75	30.69	79.02	83.86
95th-Percentile Queue Length [veh]	13.93	13.93	7.67	0.33	0.29	2.53	10.91	10.75	2.21	5.69	6.04
95th-Percentile Queue Length [ft]	348.17	348.16	191.80	8.33	7.36	63.32	272.66	268.68	55.24	142.24	150.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.17	37.39	37.39	500.77	47.65	48.38	24.28	17.98	19.91	13.55	10.46	10.73
Movement LOS	D	D	D	F	D	D	C	B	B	B	B	B
d_A, Approach Delay [s/veh]	36.63			415.47			18.90			10.81		
Approach LOS	D			F			B			B		
d_I, Intersection Delay [s/veh]	28.59											
Intersection LOS	C											
Intersection V/C	0.698											

Sequence

Ring 1	2	6	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Appendix E

Signal Warrant Analysis
Vermont Avenue & Leighton Avenue

Signal Warrant Analysis
Vermont Avenue & Leighton Avenue

The intersection of Vermont Avenue & Leighton Avenue (Intersection) is proposed for signalization as part of the Lucas Museum of Narrative Art (LMNA) project (Project). It would serve as one of three exit driveways for the proposed Replacement Parking Structure, a 3-level, up to 1,400-space subterranean structure serving to replace the Exposition Park parking removed for the Project. The other two driveways would provide access to Bill Robertson Lane to the east.

The Intersection requires a signal in order to accommodate event traffic, particularly the case where the Replacement Parking Structure discharges the majority of its vehicles in a short period following conclusion of a significant event at Exposition Park. A traffic signal warrant analysis was conducted based on Warrant 3, Peak Hour, to show that the minimum vehicular volume thresholds are met to warrant installation of a traffic signal.

PROPOSED INTERSECTION CONFIGURATION

The Intersection would have two travel lanes in the northbound and southbound directions along with left-turn pockets. The existing west leg of Leighton Avenue would be striped with a single lane approach. The Replacement Parking Structure driveway, which would form the new east leg of the Intersection, would be striped with one right-turn lane and one left-turn lane outbound and a single inbound lane. No east-west through traffic would be allowed in order to protect the residential community to the west. Pedestrian crosswalks would be provided across all four legs of the Intersection. The traffic signal would provide permitted left-turn phasing on each approach.

TRAFFIC VOLUMES

The event peak hour traffic volumes were estimated based on the Saturday midday peak hour volumes for the Future without Project (Year 2021) conditions shown in Figure 6 of the traffic study report. Intersection #6, Vermont Avenue & Martin Luther King Jr. Boulevard, is located approximately 800 feet south of the Leighton Avenue, and the north-south volumes at that intersection are approximately equivalent to the north-south volumes that would be expected at the intersection of Vermont Avenue & Leighton Avenue. As shown in Figure 6, a total of 1,062 vehicles approach Intersection #6 in the southbound direction and 858 vehicles depart Intersection #6 in the northbound direction. These are the Major Street peak hour volumes for use in the signal warrant analysis.

The traffic volumes exiting the Replacement Parking Structure onto Vermont Avenue during event egress would be substantially higher than those expected from the residential neighborhood west leg of Leighton Avenue, and therefore the parking structure egress volumes would be considered as the Minor Street peak hour volume in the signal warrant analysis. The Replacement Parking Structure would hold up to 1,400 vehicles, and is expected to fill up during many events at Exposition Park (even those below the “major event” threshold of 25,000 attendees). The majority of visitors would be expected to leave within the first hour following the conclusion of the event. If 70% of visitors departed during that hour, split evenly between the three Replacement Parking Structure driveways, a total of 23.3% of the total cars in the structure, or 327 vehicles, would depart via Leighton Avenue. This is the Minor Street volume for use in the signal warrant analysis.

SIGNAL WARRANT ANALYSIS

The signal warrant analysis was conducted using the traffic volumes and Intersection configuration described above. The warrant worksheet is attached to this Appendix. As shown, the Intersection would meet the peak hour traffic signal warrant during event egress.

FUTURE CONDITIONS WITH EXPOSITION PARK EVENT - BASED ON SATURDAY MIDDAY PEAK HOUR

Lucas Museum of Narrative Art

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

VERMONT AVENUE & LEIGHTON AVENUE

Major Street Name: Vermont Avenue
Minor Street Name: Leighton Avenue

Major Street Lanes: 2
Minor Street Lanes: 2

[b] Urban/Rural: Urban

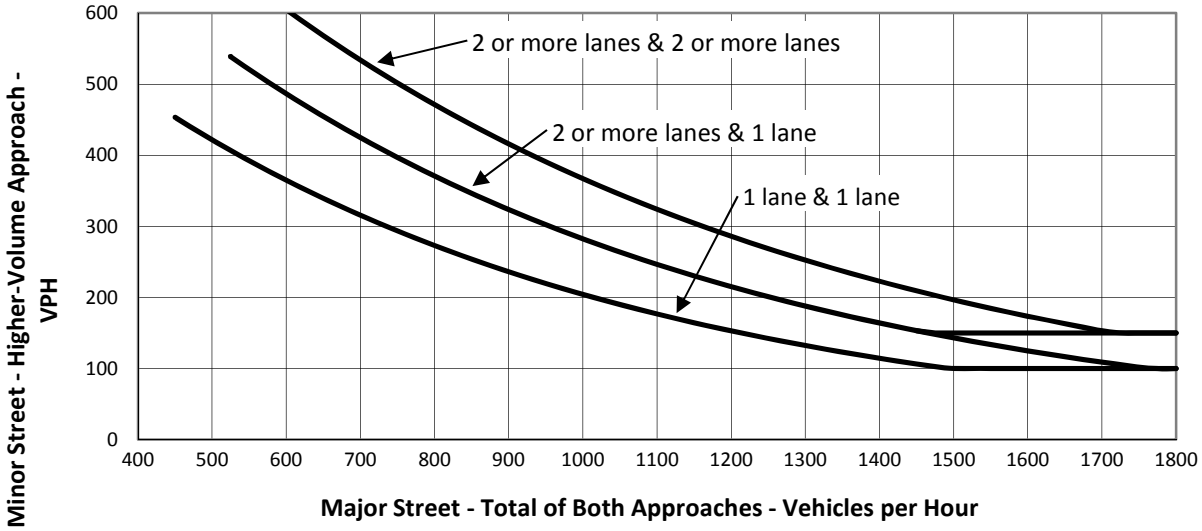
Vehicles per Hour (Peak Hour)	
Major Street (Approach 1):	1,062
Major Street (Approach 2):	858
[a] Major Street Left-Turns:	0
Minor Street (Higher Volume):	327

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,062
Major Street (Approach 2):	858
Total Major Street Volume:	1,920
Major Street Left Turns:	0
Minor Street (Higher Volume):	327
Total Minor Street Volume:	327

Minimum Major Street Volume:	620
Satisfied?	YES
Minimum Minor Street Volume:	150
Satisfied?	YES
Warrant 3 Satisfied?	**YES**

Figure 4C-3. Warrant 3, Peak Hour [c]



[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Appendix H

Tree Inventory



Consulting Arborist's Report

Exposition Park Tree Inventory & Evaluation

For: Parking Lots 1, 2 & 3 & Sports Park for Lucas Museum

Prepared for: **Mr. Brian League**
Executive Director
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Date: **February 23, 2017**

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Summary

The University is planning to develop a new museum site on the property between Vermont, Martin Luther King, Bill Robertson, and the south edge of Exposition Park. The existing parking lots (#2 & 3) will be replaced by below ground parking lots. The construction will require removal of at least 20 mature trees. It appears that the street trees on Martin Luther King and the 162 elms along Vermont will probably remain, but they are included here for consideration.

There are five mature ficus trees in the vacated portion of 39th Street, between the two parking lots. The University would hope that as many of these valuable trees could be protected in place during construction as possible and reasonable. It may be possible to keep the two trees at the east and west ends, but construction of the underground parking will probably prevent that. In addition, the tree at the west end is not in good health. Due to the intense site usage, none of the internal trees can remain and few are worthwhile candidates for transplanting. Space for storing trees during grading and construction is also limited.

Mr. League requested Arborgate Consulting to provide an arboricultural inventory evaluation of all the trees' health and condition within the project boundaries (see first paragraph above), professional opinions and report as appropriate. On October 26, 2016 and February 20, 2017 Arborgate consulting inventoried and evaluated all the trees on site, between Vermont and Bill Robertson, north of Martin Luther King, and south of the Jesse Brewer Jr. Park by 38th Street. The elm trees along Vermont appear to be outside the limits of construction, but Mr. League requested that they be included.

Old asphalt parking lots nearly cover this entire site. Tree #1, a camphor, is in a 12-foot raised planter at the north end of Lot 3. Ficus trees #2 to 6, are in the portion of 39th Street to be vacated, #2 at the west end and #6 at the east end. Tree #7 is a yew-pine street tree on the north side of Leighton and there are four bottlebrush trees on the south side. Elms #12 to 19 are young trees growing on the west side of Bill Robertson. The elms along Vermont (#22 to #184) are in a triple row inside the sidewalk, but outside the parking lot fence.

Camphor tree #1 is in fair health, but has had 4 large limbs headed back severely. Ficus #2 & #3 are in poor health and have extensive root rot. Ficus trees #4 and #5 have serious root dieback on the south side, but still appear healthy. Ficus #6 appears healthy, but a 12-inch diameter root was cut at the east sidewalk. Yew pine #7 has outgrown the sidewalk cutout and has a forked trunk from the base. The elms along Vermont are in various states, from dead to healthy.

There are no protected trees species on site. There are five street trees on Leighton, five on 39th and two on Martin Luther King. I do not know if the ficus on 39th are considered street trees. There may be 162 more that are considered street trees, if the elms along Vermont are considered street trees. The three Sports Park ficus trees also need to be removed. All are either too large to transplant, or too poor quality to justify the expense. The Los Angeles Urban Forestry Department will need to issue permits prior to removing any street trees.

Because of the above facts, this report is more an inventory and evaluation of the trees that will be removed, rather than a tree preservation plan.

Introduction

Assignment

I was asked to provide an arboricultural inventory of all the trees between the south edge of Jesse Brewer Jr. Park, Bill Robertson, Martin Luther King, and Vermont, including their size, health and condition, professional opinions and report as appropriate. The tree numbers are located approximately on the following aerial site and tree map. Up to twenty of the trees may be considered City street trees, unless the elms along Vermont are City street trees. Some may require more specific reporting if they need to be removed, which will be determined by the city Urban Forestry Department.

Background

USC needs an arborist report for purposes of filing a tract map with the City of Los Angeles. The construction and grading will affect the entire site. No trees can remain in place, except perhaps the elm trees along Martin Luther King and Vermont.

There are no protected species on site. However, the City will need to issue the appropriate permits for the removal and eventual replacement of any trees considered City street trees.

Aerial Site & Tree Location Map



Report

General Findings

There is only one tree *inside* the two parking lots, i.e. tree #1, the camphor. It is in a 12-foot square raised planter at the north end of Lot 3. The foliage looks healthy, but four of the five main limbs were headed back severely in past years. These may have been limbs that broke in storms, but the shoot growth behind these heading cuts is weak.

There are five large Morton Bay figs, *Ficus macrophylla*, (#2 to 6) along 39th Street, between the lots 2 and 3. All have been lion-tailed. The first tree on the west appears to be in fair health, but there are decay conks around the base of the trunk and on most of the roots. The roots themselves are dying back. The second tree is nearly dead and the roots are in nearly the same condition. Almost all its foliage has been shed. The third tree also has root dieback, mostly on the south side. Its foliage appears healthy. Likewise, the fourth tree appears healthy and there is root dieback on the south side. The fifth ficus tree appears healthy and has dense foliage, but it only has minor root damage where a large root was cut back at the edge of the sidewalk. There is no grass or ground cover below these ficus. The native soil is compacted and has been covered with decomposed granite. During the site inspection the landscape maintenance crew was driving over the root zone and raking up all the leaves. It is unclear how the Ficus are being irrigated. Driving over the root zone, the drought, and capping the soil with compacted decomposed granite are clear stress factors.

There are three ficus trees in the Sports Park at the south end of the site. They are relatively small and could be replaced relatively easily at about their present size.

Tree number seven is a yew-pine street tree along the north side of the vacated portion of Leighton. There are also four bottlebrush street trees on the other side of Leighton. Apparently, they have had an adequate service life, but will no longer be useful.

Additional street trees include eight Chinese elms along Bill Robertson Lane, south of Leighton, two topped Canary Island pines on Martin Luther King, and possibly the large bosque of Chinese elms along Vermont will be considered street trees. At present, the only street trees that need to be removed are those on Leighton and the elms along Bill Robertson.

There are 162 Chinese elms, planted in three rows along Vermont. There are at least two cultivars in this one planting. The primary cultivar south of 39th is unknown, but is probably the True Green or sempervirens cultivar. North of 39th Street the primary cultivar is Drake. Drake is the cultivar preferred for street trees, due to its more upright main limbs. It also is supposed to be more resistant to elm anthracnose. However, almost all the symptoms were seen in this area, though not on the ones that were clearly of the Drake cultivar. The diamond shaped cankers caused by this disease can weaken limbs and result in limb or branch failures. Crowding has caused many one-sided canopies to occur.

At the time of the site inspection, February 20, 2017, the weekend festival was being taken down. There were stacks of supplies being stored under these elms, and large fork lifts were traversing their root zones. There was also a large pickup truck parked between the trees. All this traffic over the wet soil has increased soil compaction and will reduce the trees' health. This is probably not the first such festival, which may explain why the inner row was healthier. The reason being that most of the vehicle traffic was between the two outer rows. It is not unheard of for such vehicles to leak oil, hydraulic fluid or radiator fluid, all of which are toxic to tree roots. Several limbs were freshly broken and there were some recent trunk injuries as well.

Matrix of Findings

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
1	Cinnamomum camphora	34"b	42	27	C	D	Crowded	N end Lot 3	in 12' sq planter, 4 large Hd cuts
2	Ficus macrophylla	46	40	45	C-	D	Dk Db	39th west	Root rot + Db
3	Ficus macrophylla	59	44	45	D-	D	Dk Db	39th	root rot + Db + Hd + Lt
4	Ficus macrophylla	44	40	45	B	C	Db	39th	Db + Hd + Lt
5	Ficus macrophylla	43	40	45	B	C	Db	39th	Db + Hd + Lt
6	Ficus macrophylla	57	40	45	B	C	mDb	39th east	mDb + Hd + Lt, large root cut
7	Podocarpus macrophylla	14	22	16	B	C	Crowded	On Leighton	Small cut out, Xing, St. tree
8	Callistemon citrinus	2.3	11	5	C	C	Crowded	On Leighton	
9	Callistemon citrinus	4.6	16	9	B	C	Crowded	On Leighton	
10	Callistemon citrinus	9	6	12	C	C-	Crowded	On Leighton	Cod inc Xing
11	Callistemon citrinus	9	16	12	C	C-	Crowded	On Leighton	Cod inc Xing
12	Ulmus parvifolia cv	7	18	20	B	C	Circling	B Robertson	Cod inc
13	Ulmus parvifolia cv	4.4	14	14	C	C	Okay	B Robertson	Small cut out, Xing, St. tree
14	Ulmus parvifolia cv	7.2	18	20	B	C	Circling	B Robertson	DLS
15	Ulmus parvifolia cv	7.5	18	18	B	C	Circling	B Robertson	Cod FC
16	Ulmus parvifolia cv	6.6	16	18	B	C	Okay	B Robertson	Cod CrS FC
17	Ulmus parvifolia cv	7.5	18	18	B	C-	Okay	B Robertson	Cod CrS FC
18	Ulmus parvifolia cv	7.2	16	16	B	C-	Okay	B Robertson	Cod FC
19	Ulmus parvifolia cv	6	15	18	C	C	Okay	B Robertson	FC
20	Pinus canariensis	17	30	15	B	D	Girdling	MLK	Top'd
21	Pinus canariensis	13	30	12	B	D	Girdling	MLK	Top'd
22	Ulmus parvifolia cv	11.5	30	30	B	C	Okay	Vermont in	Cod inc Db Tinj
23	Ulmus parvifolia cv	10	30	30	B	C	Okay	Vermont in	
24	Ulmus parvifolia cv	11	28	30	B	C	Okay	Vermont in	
25	Ulmus parvifolia cv	11	32	30	B	C	Okay	Vermont in	
26	Ulmus parvifolia cv	12	30	30	B	C	Okay	Vermont in	
27	Ulmus parvifolia cv	11	28	30	B	C	Okay	Vermont in	
28	Ulmus parvifolia cv	10	28	30	B	C	1sRF	Vermont in	Cod
29	Ulmus parvifolia cv	11	30	32	B	C	1sRF	Vermont in	Cod DLS

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
30	Ulmus parvifolia cv	11	32	32	B	C	1sRF	Vermont in	Cod inc Lt
31	Ulmus parvifolia cv	10	30	30	B	C	1sRF	Vermont in	Cod
32	Ulmus parvifolia cv	11	30	30	B	C-	1sRF	Vermont in	Cod Dk seam
33	Ulmus parvifolia cv	10	30	28	B	C	Okay	Vermont in	Cod
34	Ulmus parvifolia cv	10	30	30	B	C	Okay	Vermont in	Cod FC
35	Ulmus parvifolia cv	10	30	32	B	C	Okay	Vermont in	Cod inc FC
36	Ulmus parvifolia cv	10	30	30	B	C	Okay	Vermont in	Cod
37	Ulmus parvifolia cv	8.5	26	28	B	C	Okay	Vermont in	Cod CrS
38	Ulmus parvifolia cv	6	18	20	C	C	Deep	Vermont mid	Cod DLS
39	Ulmus parvifolia cv	5.2	17	20	C-	C-	Deep	Vermont mid	1sCanopy cod
40	Ulmus parvifolia cv	5	18	15	C	C-	Deep	Vermont mid	1sCanopy cod
41	Ulmus parvifolia cv	6.6	18	18	B	C	Okay	Vermont mid	Cod
42	Ulmus parvifolia cv	8	20	20	B	C	Okay	Vermont mid	Cod
43	Ulmus parvifolia cv	8	20	20	B	C	1sRF	Vermont mid	Cod
44	Ulmus parvifolia cv	5.7	17	20	C	C	Deep	Vermont mid	Cod
45	Ulmus parvifolia cv	4.7	20	15	C	C	1sRF	Vermont mid	1sCanopy cod
46	Ulmus parvifolia cv	6	20	20	B	C	Deep	Vermont mid	
47	Ulmus parvifolia cv	4	14	12	C	C	Okay	Vermont mid	Suppressed cod
48	Ulmus parvifolia cv	5.4	16	16	B	C	1sRF	Vermont mid	1sCanopy
49	Ulmus parvifolia cv	5.6	16	18	C	C-	1sRF	Vermont mid	1sCanopy
50	Ulmus parvifolia cv	7.2	26	32	B	C	Okay	Vermont mid	m1sCanopy
51	Ulmus parvifolia cv	6.9	22	25	C	C	Okay	Vermont mid	m1sCanopy
52	Ulmus parvifolia cv	5.2	20	20	C	C-	1sRF	Vermont mid	1sCanopy
53	Ulmus parvifolia cv	6.3	25	20	C	C-	Deep	Vermont mid	1sCanopy
54	Ulmus parvifolia cv	7.8	28	30	B	C	1sRF	Vermont out	Cod
55	Ulmus parvifolia cv	7.2	28	28	C	C	1sRF	Vermont out	Cod Sp OP
56	Ulmus parvifolia cv	7.7	24	28	C	C-	Deep	Vermont out	Cod Sp OP FC Lt
57	Ulmus parvifolia cv	7	26	28	C	C-	1sRF	Vermont out	Sp OP FC Lt
58	Ulmus parvifolia cv	7.5	26	28	C	D	Deep	Vermont out	Cod Sp OP FC Lt
59	Ulmus parvifolia cv	6.8	24	28	C	C-	Deep	Vermont out	FC Sp OP cod
60	Ulmus parvifolia cv	6	20	26	C	C-	Deep	Vermont out	FC Sp OP cod
61	Ulmus parvifolia cv	5.9	20	28	C	C-	Deep	Vermont out	FC Sp OP cod Lt

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
62	Ulmus parvifolia cv	6	18	20	C-	C	Deep	Vermont out	Epi Sp OP cod Lt
63	Ulmus parvifolia cv	6.5	24	24	C	C	Deep	Vermont out	Epi Sp OP cod Lt
64	Ulmus parvifolia cv	6.4	20	24	C-	C	1sRF	Vermont out	Cod OP epi
65	Ulmus parvifolia cv	8.5	22	26	B	C	Deep	Vermont out	Cod Lt epi
66	Ulmus parvifolia cv	7	26	26	C-	C-	1sRF	Vermont out	Cod Lt epi
67	Ulmus parvifolia cv	7.2	26	28	B	B	Okay	Vermont out	Cod Lt
68	Ulmus parvifolia cv	8.2	28	30	B	B	1sRF	Vermont out	Cod Lt
69	Ulmus parvifolia cv	6.6	18	24	B	B	1sRF	Vermont out	Cod
70	Ulmus parvifolia cv	7	25	30	B	C	Okay	Vermont in	1sCanopy Hd
71	Ulmus parvifolia cv	8.5	25	28	B	C-	1sRF	Vermont in	Cod inc CrS
72	Ulmus parvifolia cv	7.2	22	28	C	C	1sRF	Vermont in	Cod FC
73	Ulmus parvifolia cv	7.4	24	28	B	C	Okay	Vermont in	Cod FC
74	Ulmus parvifolia cv	8	28	28	C	C	Okay	Vermont in	Cod OP epi
75	Ulmus parvifolia cv	8.2	28	30	D	C-	Okay	Vermont in	Cod OP Sp Db
76	Ulmus parvifolia cv	8	28	30	D	C	Circling	Vermont in	Truck parking OP Sp Db
77	Ulmus parvifolia cv	10	30	30	C-	B	Injured RF	Vermont in	Truck parking cod Sp Db
78	Ulmus parvifolia cv	8	30	30	D	C	1sRF	Vermont in	Basal canker
79	Ulmus parvifolia cv	8.5	28	30	C	B	Okay	Vermont in	
80	Ulmus parvifolia cv	10		32	C	C	1sRF	Vermont in	Cod FC
81	Ulmus parvifolia cv	8.2	28	28	B	C	Okay	Vermont in	Cod inc Xing
82	Ulmus parvifolia cv	7.2	20	28	C	C	Okay	Vermont in	Cod Lt FC
83	Ulmus parvifolia cv	9.5	18	28	C	C	Okay	Vermont in	Cod Lt
84	Ulmus parvifolia cv	9	22	30	C	C	1sRF	Vermont in	Cod Lt FC
85	Ulmus parvifolia cv	7	24	30	C	C	Okay	Vermont in	Cod Sp FC
86	Ulmus parvifolia cv	8.2	26	32	B	C	Okay	Vermont in	Cod Lt
87	Ulmus parvifolia cv	9	28	30	B	D	Okay	Vermont in	FCs CrS OL
88	Ulmus parvifolia cv	8.5	30	32	C	C	1sRF	Vermont in	Cod Lt
89	Ulmus parvifolia cv	9	30	30	C	C	1sRF	Vermont in	FC
90	Ulmus parvifolia cv	10	30	32	B	C	Basal inj	Vermont in	FC cod epi Xing
91	Ulmus parvifolia cv	10	32	30	C	C	1sRF	Vermont in	Cod Lt
92	Ulmus parvifolia cv	8.5	32	32	C	C	1sRF	Vermont in	Cod OP epi Lt
93	Ulmus parvifolia cv	8.2	28	30	C	C-	Okay	Vermont in	Fresh tear out

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
94	Ulmus parvifolia cv	6.7	22	28	C	C	Okay	Vermont mid	Cod
95	Ulmus parvifolia cv	7	22	22	B-	C	Deep	Vermont mid	Big cut
96	Ulmus parvifolia cv	5.6	20	20	C-	C-	1sRF	Vermont mid	1sCanopy Cr
97	Ulmus parvifolia cv	6.7	20	15	C-	D	Deep	Vermont mid	1sCanopy Hd Cr
98	Ulmus parvifolia cv	6.7	22	15	C-	D	Deep	Vermont mid	Cod Cr Db
99	Ulmus parvifolia cv	6.1	20	15	C	C-	Deep	Vermont mid	Cod Cr Db FC
100	Ulmus parvifolia cv	6	20	18	C	C-	Deep	Vermont mid	Brk Cr Db FC
101	Ulmus parvifolia cv	6.3	20	18	C-	C-	Deep	Vermont mid	FC Cr Lt
102	Ulmus parvifolia cv	5.5	20	17	C	C	Deep	Vermont mid	Sp OP FC Lt
103	Ulmus parvifolia cv	6	18	20	C	C	Okay	Vermont mid	FC Sp
104	Ulmus parvifolia cv	7	22	22	C	C	1sRF	Vermont mid	Cod FC Lt
105	Ulmus parvifolia cv	7.2	20	20	C	C	1sRF	Vermont mid	Cod FC
106	Ulmus parvifolia cv	6.2	22	20	C	C-	1sRF	Vermont mid	Prior gap, fresh Tinj Cr
107	Ulmus parvifolia cv	6.2	22	22	C	C	1sRF	Vermont mid	Cod Sp
108	Ulmus parvifolia cv	7.1	24	24	C-	C-	Okay	Vermont mid	T-bow FC Sp Lt
109	Ulmus parvifolia cv	5.6	22	15	C	C-	1sRF	Vermont mid	1sCanopy Lt
110	Ulmus parvifolia cv	7.1	24	24	C	C	1sRF	Vermont mid	Cod FC
111	Ulmus parvifolia cv	6.7	20	20	C-	D	1sRF	Vermont mid	1s of 2-S cut, Db mTinj
112	Ulmus parvifolia cv	7.5	24	24	C	C-	1sRF	Vermont mid	FC, gap after
113	Ulmus parvifolia cv	6.8	22	24	B	C-	1sRF	Vermont mid	FC, gap after
114	Ulmus parvifolia cv	7	20	22	C	C	1sRF	Vermont out	Cod
115	Ulmus parvifolia cv	8	20	20	C	B	1sRF	Vermont out	
116	Ulmus parvifolia cv	7.7	22	24	C	C	1sRF	Vermont out	Cod FC Lt
117	Ulmus parvifolia cv	8	24	24	C	C-	1sRF	Vermont out	Cod DLS Lt
118	Ulmus parvifolia cv	7.1	18	18	C	C-	1sRF	Vermont out	Cod FC Lt DLS
119	Ulmus parvifolia cv	8	22	18	C-	C-	1sRF	Vermont out	DLT FC epi Sp
120	Ulmus parvifolia cv	7.8	24	26	C-	C	Okay	Vermont out	Cod Lt Sp
121	Ulmus parvifolia cv	8	26	30	C	C-	Okay	Vermont out	Cod FC Sp
122	Ulmus parvifolia cv	8	26	26	C	C-	1sRF	Vermont out	Cod FC DLS Sp
123	Ulmus parvifolia cv	8.5	28	28	C	C	1sRF	Vermont out	Cod DLS
124	Ulmus parvifolia cv	8	28	26	F	F	dead	Vermont out	Borers
125	Ulmus parvifolia cv	8	28	30	D	C-	1sRF	Vermont out	Cod FC Lt Sp

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
126	Ulmus parvifolia cv	7	26	28	C	C-	1sRF	Vermont out	DLT FC
127	Ulmus parvifolia cv	7.4	24	26	D	D	1sRF	Vermont out	DLT FC Lt Sp
128	Ulmus parvifolia cv	7.2	24	28	C	C-	1sRF	Vermont out	Cod DLS Lt
129	Ulmus parvifolia cv	8	28	28	D	D	1sRF	Vermont out	Cod FC Lt OP epi
130	Ulmus parvifolia cv	7	26	26	D	C	Deep	Vermont out	Cod CrS Db
131	Ulmus parvifolia cv	7	24	24	C-	C	Deep	Vermont out	Cod Lt epi
132	Ulmus parvifolia cv	6.8	22	24	D	C	1sRF	Vermont out	DLS Lt epi Sp
133	Ulmus parvifolia cv	8	26	26	D	C-	Deep	Vermont out	Cod inc Xing Sp
134	Ulmus parvifolia cv	7.3	24	28	D	C	1sRF	Vermont out	Cod DLS FC
135	Ulmus parvifolia cv	7	24	28	D	C-	Deep	Vermont out	Cod inc Xing DLS
136	Ulmus parvifolia cv	9	30	34	C	C	Okay	Vermont out	Cod CrS DLS
137	Ulmus parvifolia Drake	7.5	32	25	B	C	Okay	Vermont in	Cod CrS
138	Ulmus parvifolia Drake	9	32	30	B	B	Okay	Vermont in	Lt
139	Ulmus parvifolia Drake	9	34	30	C	C	Okay	Vermont in	Cod
140	Ulmus parvifolia Drake	6.8	32	28	B	C	Okay	Vermont in	Cod DLS
141	Ulmus parvifolia Drake	6.5	34	26	B	B-	Okay	Vermont in	Cod inc FC
142	Ulmus parvifolia Drake	9	34	32	B	C	Okay	Vermont in	Cod DLS Lt
143	Ulmus parvifolia Drake	9.5	34	30	B	C	Okay	Vermont in	Cod Lt
145	Ulmus parvifolia Drake	10	32	32	B	C	Okay	Vermont in	Cod OL DkT
146	Ulmus parvifolia Drake	8	32	32	B	C	Okay	Vermont in	Cod Xing
147	Ulmus parvifolia Drake	10	34	34	B	C	Okay	Vermont in	Cod DLS Lt
148	Ulmus parvifolia Drake	11	34	34	B	C-	Okay	Vermont in	T-canker cod DLS Lt
149	Ulmus parvifolia Drake	8.4	34	32	B	C-	Okay	Vermont in	Prior gap, cod DLS Lt
150	Ulmus parvifolia Drake	9.5	34	34	B	B	Okay	Vermont in	Lt
151	Ulmus parvifolia Drake	7	30	28	C	C	Okay	Vermont mid	Cod Lt 1sCanopy
152	Ulmus parvifolia cv	4.6	18	20	F	F	Epicormics	Vermont mid	Borers
153	Ulmus parvifolia Drake	6.3	26	20	C	D	Okay	Vermont mid	Cod DLS Lt
154	Ulmus parvifolia Drake	6.8	30	28	D	D	Okay	Vermont mid	Basal & limb cankers
155	Ulmus parvifolia Drake	6.5	30	28	C	C-	Okay	Vermont mid	FC OL
156	Ulmus parvifolia cv	7.3	30	30	D	D	Deep	Vermont mid	T-canker cod Xing
157	Ulmus parvifolia cv	6.8	28	26	D-	D-	1sRF	Vermont mid	T-cankers borers cod inc
158	Ulmus parvifolia cv	5.3	28	28	F	F	1sRF	Vermont mid	Gap after, borers

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Location	Comments
159	Ulmus parvifolia cv	8	26	28	D	C	1sRF	Vermont out	Odd bark damage, limb cankers
160	Ulmus parvifolia Drake	8	32	30	B	B	Okay	Vermont out	FC
161	Ulmus parvifolia Drake	6.9	30	30	C-	D	Deep	Vermont out	Db cankers
162	Ulmus parvifolia cv	5.6	15	20	B	C	Deep	Vermont out	Lt
163	Ulmus parvifolia cv	6.5	26	26	C-	D	Deep	Vermont out	mDb Tinj cankers
164	Ulmus parvifolia cv	4.8	14	10	D	D	Deep	Vermont out	1sCanopy FC Hd
165	Ulmus parvifolia cv	5.7	16	12	C-	C	Deep	Vermont out	Hd DL FC cod
166	Ulmus parvifolia cv	5.3	18	16	C-	C-	Deep	Vermont out	Cod
167	Ulmus parvifolia cv	6.1	24	24	C-	D	1sRF	Vermont out	Cod DLS Lt
168	Ulmus parvifolia cv	5	14	16	C-	D	Deep	Vermont out	1sCanopy, cod inc
169	Ulmus parvifolia cv	6	18	16	C-	C-	Deep	Vermont out	Cod Hd Db Xing
170	Ulmus parvifolia cv	4.5	14	14	C-	D	Deep	Vermont out	DLS
171	Ulmus parvifolia Drake	8	32	32	C	C-	Deep	Vermont out	Cod Xing Lt
172	Ulmus parvifolia cv	6	28	28	C-	C-	1sRF	Vermont out	OL FC T-bow
173	Ulmus parvifolia cv	8	26	28	C	C-	1sRF	Vermont out	DLT FC
174	Ulmus parvifolia cv	7	28	28	D	D	Deep	Vermont out	Cankers
175	Ulmus parvifolia Drake	9	32	30	C	C	Okay	Vermont out	Cod Lt
176	Ulmus parvifolia cv	7	32	30	C	D	Okay	Vermont out	1sCanopy cod FC
177	Ulmus parvifolia cv	8.5	32	32	C-	C-	Deep	Vermont out	S&T cankers, cod
178	Ulmus parvifolia cv	8.5	32	30	C	C-	1sRF	Vermont out	S&T cankers, Lt
179	Ulmus parvifolia cv	6.3	30	25	C	C-	1sRF	Vermont out	Cod Lt, narrow crotch
180	Ulmus parvifolia cv	7.5	24	24	C	C-	Deep	Vermont out	Cod Xing
181	Ulmus parvifolia cv	7.2	20	24	C-	C	Deep	Vermont out	Cod mDb
182	Ulmus parvifolia cv	8.5	30	32	C	C-	1sRF	Vermont out	S-cankers Lt
183	Ulmus parvifolia cv	7	28	26	C-	C-	Deep	Vermont out	Cod Lt OP Sp
184	Ulmus parvifolia Drake	10	34	32	B	C	Okay	Vermont out	Tinj cod OL
185	Ficus rubiginosa	18	28	32	A	C	Crowded	SportsPark E.	Lt
186	Ficus rubiginosa	9	16	14	C	C	Crowded	SportsPark S.	Lt
187	Ficus rubiginosa	12	18	18	B	C	Crowded	SportsPark W.	Lt

Health and structure are rated by school type grades, i.e. A is excellent, B is good, C is average, D is declining or poor, and F is dead.

Explanation of Abbreviations Used in the Matrix

The size, species, evaluation of health, structural condition, location, and the description of defects, health and condition of the trees are listed below. Arboricultural terms are defined in the glossary.

Underlined abbreviations indicate severity. An "m" in front of an abbreviation indicates minor significance e.g., mDb = minor dieback. The previous matrix and the one found in Recommendations can also be presented as an Excel file, via e-mail or compact disk.

1s = one-sided
1sRF = one-sided root flare
2long = too long
Brk = broken
Cod = codominant
Cr=crowded
CrS = crowded limbs
cv = cultivar
Db=dieback
DBH – Diameter at breast height, i.e. 4.5'
Dk = decay
DL = dogleg
DLS = dogleg scaffold limb
DLT = dogleg trunk
Dk=decay
E. = east
Epi = epicormic shoots
FC = flush cut
N. = north
Hd = headed
Inc = included bark
Lt=lion-tailed
OL = over-lifted
OP = over-pruned
S = scaffold limb(s)
S. south
Sh = shallow rooted
Sp = sparse
T = trunk
T-bow'd = trunk bowed
Tinj = trunk injury
Xing = crossing limbs
W. = west

Analysis

The poor structural condition of many of the trees, their size, or their location relative to permanent features will prevent or make unreasonable their transplanting. Transplanting in the proper season is also important or critical, depending on the species. Transplanting is expensive and risky. It becomes more risky with unexperienced contractors. Keep in mind also that it takes years for the transplanted trees to recover. An average 4-inch caliper tree will take about four years to replace all the roots lost in transplanting, but a 10-inch caliper tree will take about thirteen years to place all the roots cut. Only significant trees, healthy trees, and trees with good structure should be considered for transplanting. To make transplanting worthwhile, there should be a real need for that specific tree elsewhere on campus or in the local community. Only specialty tree moving contractors should be hired for the task. Many landscape contractors claim to be skilled at transplanting, but in truth, only a few specialty contractors are.

Ficus are typically very decay resistant and transplant reliably well. The preponderance of dead and decaying roots alone in the first two Ficus on 39th Street rules out their preservation. There is also some root dieback in the other ficus. The heading and lion-tailing reduce their value. All the Ficus along 39th are too large to move any significant distance on city streets. The Ficus in the Sports Park may be considered, if there is a need for them elsewhere. The cost of moving them may exceed their value. Before considering transplanting any of the healthier ficus on 39th, there should be a real need for them in the immediate Expo grounds and they should have an in-depth decay study, by Resistograph and/or PiCUS Sonic Tomography.

The yew pine and bottlebrush have grown as street trees, whether or not they are still considered street trees or not. The roots will be pressed close to the surface behind the curb and just under the paving. Transplanting is not likely to be successful and the cost of sending a crew and equipment out to box up a few awkward street trees would be disproportionately high.

Depending on the construction schedule, the elms along Bill Robertson may be good transplanting candidates to fill in gaps in the elm bosque along Vermont. However, they need to be trained up for a couple years to have similar structure as the existing elms. If this is a possibility, pruning should start within about a week. Heavy pruning of transplanted trees increases the time required for establishment, and the closing and compartmentalization of the pruning cuts will be hampered. At least one year is needed after pruning before transplanting.

Young healthy trees of many species can lose 90 percent of their roots and yet, with good care, fully recover within a few years. Older trees are less likely to recover, take disproportionately longer to recover, and some never do. The carbohydrates formed from photosynthesis are the building blocks the tree uses to create new wood, conductive vessels, roots, bark, pest resisting chemicals and internal protection zones that prevent the spread of decay. Mature trees have proportionately lower carbohydrate reserves compared to their needs relative to young trees. Trees that have injuries and old pruning cuts, decay, limited root space or are infested or infected by pests or disease have still lower carbohydrate reserves.

Due to the intensity and density of construction, there is little opportunity to keep and save trees in place. These trees have served their purpose, yet few trees worth transplanting were found. No tree is worth transplanting if there is not a place and a need for it.

Recommendations

Specific Recommendations

Street trees – If the Urban Forestry Department considers any of these trees City street trees, it will be necessary to obtain City of Los Angeles Street Tree Removal permits. The Urban Forestry Department will dictate what mitigation measures will be required. Replace them as directed by the Urban Forestry Department.

Parking lot trees – remove above ground parts and as much of the roots as practical and necessary.

Remove the elms that have extensive elm anthracnose cankers to reduce the risk of spreading the infection.

If the elms along Bill Robertson are considered for transplanting, they must be pruned, recover for a year and then boxed before they begin to leaf out.

After replanting the elms in the Vermont bosque, do not cover the rootballs with decomposed granite, like the others, for several years.

The following matrix provides clearance radii to help determine if enough roots can be retained to maintain their health and stability.

Recommendations Matrix

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
1	Cinnamomum camphora	34"b	42	27	C	D	Crowded	Yes	N/A	N end Lot 3
2	Ficus macrophylla	46	40	45	C-	D	Dk Db	Yes	N/A	39th west
3	Ficus macrophylla	59	44	45	D-	D	Dk Db	Yes	N/A	39th
4	Ficus macrophylla	44	40	45	B	C	Db	Yes	N/A	39th
5	Ficus macrophylla	43	40	45	B	C	Db	Yes	N/A	39th
6	Ficus macrophylla	57	40	45	B	C	mDb	Yes	N/A	39th east
7	Podocarpus macrophylla	14	22	16	B	C	Crowded	Yes	N/A	On Leighton
8	Callistemon citrinus	2.3	11	5	C	C	Crowded	Yes	N/A	On Leighton
9	Callistemon citrinus	4.6	16	9	B	C	Crowded	Yes	N/A	On Leighton
10	Callistemon citrinus	9	6	12	C	C-	Crowded	Yes	N/A	On Leighton
11	Callistemon citrinus	9	16	12	C	C-	Crowded	Yes	N/A	On Leighton
12	Ulmus parvifolia cv	7	18	20	B	C	Circling	Yes	5.3	B Robertson
13	Ulmus parvifolia cv	4.4	14	14	C	C	Okay	Yes	3.3	B Robertson
14	Ulmus parvifolia cv	7.2	18	20	B	C	Circling	Yes	5.4	B Robertson
15	Ulmus parvifolia cv	7.5	18	18	B	C	Circling	Yes	5.6	B Robertson
16	Ulmus parvifolia cv	6.6	16	18	B	C	Okay	Yes	5.0	B Robertson
17	Ulmus parvifolia cv	7.5	18	18	B	C-	Okay	Yes	5.6	B Robertson
18	Ulmus parvifolia cv	7.2	16	16	B	C-	Okay	?	5.4	B Robertson
19	Ulmus parvifolia cv	6	15	18	C	C	Okay	?	4.5	B Robertson
20	Pinus canariensis	17	30	15	B	D	Girdling	S/B	N/A	MLK
21	Pinus canariensis	13	30	12	B	D	Girdling	S/B	N/A	MLK
22	Ulmus parvifolia cv	11.5	30	30	B	C	Okay	?	8.6	Vermont in
23	Ulmus parvifolia cv	10	30	30	B	C	Okay	?	7.5	Vermont in
24	Ulmus parvifolia cv	11	28	30	B	C	Okay	?	8.3	Vermont in
25	Ulmus parvifolia cv	11	32	30	B	C	Okay	?	8.3	Vermont in

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
26	Ulmus parvifolia cv	12	30	30	B	C	Okay	?	9.0	Vermont in
27	Ulmus parvifolia cv	11	28	30	B	C	Okay	?	8.3	Vermont in
28	Ulmus parvifolia cv	10	28	30	B	C	1sRF	?	7.5	Vermont in
29	Ulmus parvifolia cv	11	30	32	B	C	1sRF	?	8.3	Vermont in
30	Ulmus parvifolia cv	11	32	32	B	C	1sRF	?	8.3	Vermont in
31	Ulmus parvifolia cv	10	30	30	B	C	1sRF	?	7.5	Vermont in
32	Ulmus parvifolia cv	11	30	30	B	C-	1sRF	?	8.3	Vermont in
33	Ulmus parvifolia cv	10	30	28	B	C	Okay	?	7.5	Vermont in
34	Ulmus parvifolia cv	10	30	30	B	C	Okay	?	7.5	Vermont in
35	Ulmus parvifolia cv	10	30	32	B	C	Okay	?	7.5	Vermont in
36	Ulmus parvifolia cv	10	30	30	B	C	Okay	?	7.5	Vermont in
37	Ulmus parvifolia cv	8.5	26	28	B	C	Okay	?	6.4	Vermont in
38	Ulmus parvifolia cv	6	18	20	C	C	Deep	?	4.5	Vermont mid
39	Ulmus parvifolia cv	5.2	17	20	C-	C-	Deep	?	3.9	Vermont mid
40	Ulmus parvifolia cv	5	18	15	C	C-	Deep	?	3.8	Vermont mid
41	Ulmus parvifolia cv	6.6	18	18	B	C	Okay	?	5.0	Vermont mid
42	Ulmus parvifolia cv	8	20	20	B	C	Okay	?	6.0	Vermont mid
43	Ulmus parvifolia cv	8	20	20	B	C	1sRF	?	6.0	Vermont mid
44	Ulmus parvifolia cv	5.7	17	20	C	C	Deep	?	4.3	Vermont mid
45	Ulmus parvifolia cv	4.7	20	15	C	C	1sRF	?	3.5	Vermont mid
46	Ulmus parvifolia cv	6	20	20	B	C	Deep	?	4.5	Vermont mid
47	Ulmus parvifolia cv	4	14	12	C	C	Okay	?	3.0	Vermont mid
48	Ulmus parvifolia cv	5.4	16	16	B	C	1sRF	?	4.1	Vermont mid
49	Ulmus parvifolia cv	5.6	16	18	C	C-	1sRF	?	4.2	Vermont mid
50	Ulmus parvifolia cv	7.2	26	32	B	C	Okay	?	5.4	Vermont mid
51	Ulmus parvifolia cv	6.9	22	25	C	C	Okay	?	5.2	Vermont mid
52	Ulmus parvifolia cv	5.2	20	20	C	C-	1sRF	?	3.9	Vermont mid
53	Ulmus parvifolia cv	6.3	25	20	C	C-	Deep	?	4.7	Vermont mid

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
54	Ulmus parvifolia cv	7.8	28	30	B	C	1sRF	?	5.9	Vermont out
55	Ulmus parvifolia cv	7.2	28	28	C	C	1sRF	?	5.4	Vermont out
56	Ulmus parvifolia cv	7.7	24	28	C	C-	Deep	?	5.8	Vermont out
57	Ulmus parvifolia cv	7	26	28	C	C-	1sRF	?	5.3	Vermont out
58	Ulmus parvifolia cv	7.5	26	28	C	D	Deep	?	5.6	Vermont out
59	Ulmus parvifolia cv	6.8	24	28	C	C-	Deep	?	5.1	Vermont out
60	Ulmus parvifolia cv	6	20	26	C	C-	Deep	?	4.5	Vermont out
61	Ulmus parvifolia cv	5.9	20	28	C	C-	Deep	?	4.4	Vermont out
62	Ulmus parvifolia cv	6	18	20	C-	C	Deep	?	4.5	Vermont out
63	Ulmus parvifolia cv	6.5	24	24	C	C	Deep	?	4.9	Vermont out
64	Ulmus parvifolia cv	6.4	20	24	C-	C	1sRF	?	4.8	Vermont out
65	Ulmus parvifolia cv	8.5	22	26	B	C	Deep	?	6.4	Vermont out
66	Ulmus parvifolia cv	7	26	26	C-	C-	1sRF	?	5.3	Vermont out
67	Ulmus parvifolia cv	7.2	26	28	B	B	Okay	?	5.4	Vermont out
68	Ulmus parvifolia cv	8.2	28	30	B	B	1sRF	?	6.2	Vermont out
69	Ulmus parvifolia cv	6.6	18	24	B	B	1sRF	?	5.0	Vermont out
70	Ulmus parvifolia cv	7	25	30	B	C	Okay	?	5.3	Vermont in
71	Ulmus parvifolia cv	8.5	25	28	B	C-	1sRF	?	6.4	Vermont in
72	Ulmus parvifolia cv	7.2	22	28	C	C	1sRF	?	5.4	Vermont in
73	Ulmus parvifolia cv	7.4	24	28	B	C	Okay	?	5.6	Vermont in
74	Ulmus parvifolia cv	8	28	28	C	C	Okay	?	6.0	Vermont in
75	Ulmus parvifolia cv	8.2	28	30	D	C-	Okay	?	6.2	Vermont in
76	Ulmus parvifolia cv	8	28	30	D	C	Circling	?	6.0	Vermont in
77	Ulmus parvifolia cv	10	30	30	C-	B	Injured RF	?	7.5	Vermont in
78	Ulmus parvifolia cv	8	30	30	D	C	1sRF	?	6.0	Vermont in
79	Ulmus parvifolia cv	8.5	28	30	C	B	Okay	?	6.4	Vermont in
80	Ulmus parvifolia cv	10	0	32	C	C	1sRF	?	7.5	Vermont in
81	Ulmus parvifolia cv	8.2	28	28	B	C	Okay	?	6.2	Vermont in

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
82	Ulmus parvifolia cv	7.2	20	28	C	C	Okay	?	5.4	Vermont in
83	Ulmus parvifolia cv	9.5	18	28	C	C	Okay	?	7.1	Vermont in
84	Ulmus parvifolia cv	9	22	30	C	C	1sRF	?	6.8	Vermont in
85	Ulmus parvifolia cv	7	24	30	C	C	Okay	?	5.3	Vermont in
86	Ulmus parvifolia cv	8.2	26	32	B	C	Okay	?	6.2	Vermont in
87	Ulmus parvifolia cv	9	28	30	B	D	Okay	?	6.8	Vermont in
88	Ulmus parvifolia cv	8.5	30	32	C	C	1sRF	?	6.4	Vermont in
89	Ulmus parvifolia cv	9	30	30	C	C	1sRF	?	6.8	Vermont in
90	Ulmus parvifolia cv	10	30	32	B	C	Basal inj	?	7.5	Vermont in
91	Ulmus parvifolia cv	10	32	30	C	C	1sRF	?	7.5	Vermont in
92	Ulmus parvifolia cv	8.5	32	32	C	C	1sRF	?	6.4	Vermont in
93	Ulmus parvifolia cv	8.2	28	30	C	C-	Okay	?	6.2	Vermont in
94	Ulmus parvifolia cv	6.7	22	28	C	C	Okay	?	5.0	Vermont mid
95	Ulmus parvifolia cv	7	22	22	B-	C	Deep	?	5.3	Vermont mid
96	Ulmus parvifolia cv	5.6	20	20	C-	C-	1sRF	?	4.2	Vermont mid
97	Ulmus parvifolia cv	6.7	20	15	C-	D	Deep	?	5.0	Vermont mid
98	Ulmus parvifolia cv	6.7	22	15	C-	D	Deep	?	5.0	Vermont mid
99	Ulmus parvifolia cv	6.1	20	15	C	C-	Deep	?	4.6	Vermont mid
100	Ulmus parvifolia cv	6	20	18	C	C-	Deep	?	4.5	Vermont mid
101	Ulmus parvifolia cv	6.3	20	18	C-	C-	Deep	?	4.7	Vermont mid
102	Ulmus parvifolia cv	5.5	20	17	C	C	Deep	?	4.1	Vermont mid
103	Ulmus parvifolia cv	6	18	20	C	C	Okay	?	4.5	Vermont mid
104	Ulmus parvifolia cv	7	22	22	C	C	1sRF	?	5.3	Vermont mid
105	Ulmus parvifolia cv	7.2	20	20	C	C	1sRF	?	5.4	Vermont mid
106	Ulmus parvifolia cv	6.2	22	20	C	C-	1sRF	?	4.7	Vermont mid
107	Ulmus parvifolia cv	6.2	22	22	C	C	1sRF	?	4.7	Vermont mid
108	Ulmus parvifolia cv	7.1	24	24	C-	C-	Okay	?	5.3	Vermont mid
109	Ulmus parvifolia cv	5.6	22	15	C	C-	1sRF	?	4.2	Vermont mid

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
110	Ulmus parvifolia cv	7.1	24	24	C	C	1sRF	?	5.3	Vermont mid
111	Ulmus parvifolia cv	6.7	20	20	C-	D	1sRF	?	5.0	Vermont mid
112	Ulmus parvifolia cv	7.5	24	24	C	C-	1sRF	?	5.6	Vermont mid
113	Ulmus parvifolia cv	6.8	22	24	B	C-	1sRF	?	5.1	Vermont mid
114	Ulmus parvifolia cv	7	20	22	C	C	1sRF	?	5.3	Vermont out
115	Ulmus parvifolia cv	8	20	20	C	B	1sRF	?	6.0	Vermont out
116	Ulmus parvifolia cv	7.7	22	24	C	C	1sRF	?	5.8	Vermont out
117	Ulmus parvifolia cv	8	24	24	C	C-	1sRF	?	6.0	Vermont out
118	Ulmus parvifolia cv	7.1	18	18	C	C-	1sRF	?	5.3	Vermont out
119	Ulmus parvifolia cv	8	22	18	C-	C-	1sRF	?	6.0	Vermont out
120	Ulmus parvifolia cv	7.8	24	26	C-	C	Okay	?	5.9	Vermont out
121	Ulmus parvifolia cv	8	26	30	C	C-	Okay	?	6.0	Vermont out
122	Ulmus parvifolia cv	8	26	26	C	C-	1sRF	?	6.0	Vermont out
123	Ulmus parvifolia cv	8.5	28	28	C	C	1sRF	?	6.4	Vermont out
124	Ulmus parvifolia cv	8	28	26	F	F	dead	S/B	N/A	Vermont out
125	Ulmus parvifolia cv	8	28	30	D	C-	1sRF	?	6.0	Vermont out
126	Ulmus parvifolia cv	7	26	28	C	C-	1sRF	?	5.3	Vermont out
127	Ulmus parvifolia cv	7.4	24	26	D	D	1sRF	?	5.6	Vermont out
128	Ulmus parvifolia cv	7.2	24	28	C	C-	1sRF	?	5.4	Vermont out
129	Ulmus parvifolia cv	8	28	28	D	D	1sRF	?	6.0	Vermont out
130	Ulmus parvifolia cv	7	26	26	D	C	Deep	?	5.3	Vermont out
131	Ulmus parvifolia cv	7	24	24	C-	C	Deep	?	5.3	Vermont out
132	Ulmus parvifolia cv	6.8	22	24	D	C	1sRF	?	5.1	Vermont out
133	Ulmus parvifolia cv	8	26	26	D	C-	Deep	?	6.0	Vermont out
134	Ulmus parvifolia cv	7.3	24	28	D	C	1sRF	?	5.5	Vermont out
135	Ulmus parvifolia cv	7	24	28	D	C-	Deep	?	5.3	Vermont out
136	Ulmus parvifolia cv	9	30	34	C	C	Okay	?	6.8	Vermont out
137	Ulmus parvifolia Drake	7.5	32	25	B	C	Okay	?	5.6	Vermont in

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
138	Ulmus parvifolia Drake	9	32	30	B	B	Okay	?	6.8	Vermont in
139	Ulmus parvifolia Drake	9	34	30	C	C	Okay	?	6.8	Vermont in
140	Ulmus parvifolia Drake	6.8	32	28	B	C	Okay	?	5.1	Vermont in
141	Ulmus parvifolia Drake	6.5	34	26	B	B-	Okay	?	4.9	Vermont in
142	Ulmus parvifolia Drake	9	34	32	B	C	Okay	?	6.8	Vermont in
143	Ulmus parvifolia Drake	9.5	34	30	B	C	Okay	?	7.1	Vermont in
145	Ulmus parvifolia Drake	10	32	32	B	C	Okay	?	7.5	Vermont in
146	Ulmus parvifolia Drake	8	32	32	B	C	Okay	?	6.0	Vermont in
147	Ulmus parvifolia Drake	10	34	34	B	C	Okay	?	7.5	Vermont in
148	Ulmus parvifolia Drake	11	34	34	B	C-	Okay	?	8.3	Vermont in
149	Ulmus parvifolia Drake	8.4	34	32	B	C-	Okay	?	6.3	Vermont in
150	Ulmus parvifolia Drake	9.5	34	34	B	B	Okay	?	7.1	Vermont in
151	Ulmus parvifolia Drake	7	30	28	C	C	Okay	?	5.3	Vermont mid
152	Ulmus parvifolia cv	4.6	18	20	F	F	Epicormics	Yes	N/A	Vermont mid
153	Ulmus parvifolia Drake	6.3	26	20	C	D	Okay	?	4.7	Vermont mid
154	Ulmus parvifolia Drake	6.8	30	28	D	D	Okay	S/B	5.1	Vermont mid
155	Ulmus parvifolia Drake	6.5	30	28	C	C-	Okay	?	4.9	Vermont mid
156	Ulmus parvifolia cv	7.3	30	30	D	D	Deep	S/B	5.5	Vermont mid
157	Ulmus parvifolia cv	6.8	28	26	D-	D-	1sRF	S/B	5.1	Vermont mid
158	Ulmus parvifolia cv	5.3	28	28	F	F	1sRF	S/B	N/A	Vermont mid
159	Ulmus parvifolia cv	8	26	28	D	C	1sRF	S/B	6.0	Vermont out
160	Ulmus parvifolia Drake	8	32	30	B	B	Okay	?	6.0	Vermont out
161	Ulmus parvifolia Drake	6.9	30	30	C-	D	Deep	S/B	5.2	Vermont out
162	Ulmus parvifolia cv	5.6	15	20	B	C	Deep	?	4.2	Vermont out
163	Ulmus parvifolia cv	6.5	26	26	C-	D	Deep	S/B	4.9	Vermont out
164	Ulmus parvifolia cv	4.8	14	10	D	D	Deep	?	3.6	Vermont out
165	Ulmus parvifolia cv	5.7	16	12	C-	C	Deep	?	4.3	Vermont out
166	Ulmus parvifolia cv	5.3	18	16	C-	C-	Deep	?	4.0	Vermont out

Tree #	Species	DBH	Ht.	Wd.	Health	Structure	Root condition	Remove?	Clearance radius	Location
167	Ulmus parvifolia cv	6.1	24	24	C-	D	1sRF	?	4.6	Vermont out
168	Ulmus parvifolia cv	5	14	16	C-	D	Deep	?	3.8	Vermont out
169	Ulmus parvifolia cv	6	18	16	C-	C-	Deep	?	4.5	Vermont out
170	Ulmus parvifolia cv	4.5	14	14	C-	D	Deep	?	3.4	Vermont out
171	Ulmus parvifolia Drake	8	32	32	C	C-	Deep	?	6.0	Vermont out
172	Ulmus parvifolia cv	6	28	28	C-	C-	1sRF	?	4.5	Vermont out
173	Ulmus parvifolia cv	8	26	28	C	C-	1sRF	?	6.0	Vermont out
174	Ulmus parvifolia cv	7	28	28	D	D	Deep	S/B	5.3	Vermont out
175	Ulmus parvifolia Drake	9	32	30	C	C	Okay	?	6.8	Vermont out
176	Ulmus parvifolia cv	7	32	30	C	D	Okay	?	5.3	Vermont out
177	Ulmus parvifolia cv	8.5	32	32	C-	C-	Deep	S/B	6.4	Vermont out
178	Ulmus parvifolia cv	8.5	32	30	C	C-	1sRF	?	6.4	Vermont out
179	Ulmus parvifolia cv	6.3	30	25	C	C-	1sRF	?	4.7	Vermont out
180	Ulmus parvifolia cv	7.5	24	24	C	C-	Deep	?	5.6	Vermont out
181	Ulmus parvifolia cv	7.2	20	24	C-	C	Deep	?	5.4	Vermont out
182	Ulmus parvifolia cv	8.5	30	32	C	C-	1sRF	?	6.4	Vermont out
183	Ulmus parvifolia cv	7	28	26	C-	C-	Deep	?	5.3	Vermont out
184	Ulmus parvifolia Drake	10	34	32	B	C	Okay	?	7.5	Vermont out
185	Ficus rubiginosa	18	28	32	A	C	Crowded	Yes	13.5	SportsPark E
186	Ficus rubiginosa	9	16	14	C	C	Crowded	Yes	6.8	SportsPark S
187	Ficus rubiginosa	12	18	18	B	C	Crowded	Yes	9.0	SportsPark W

S/B = should be, but a permit will be required.

Appendix

A. Bibliography

B. Resume

C. Photographic Documentation

D. Glossary

A. Bibliography

1. American Association of Nurserymen, 1990. American Standard for Nursery Stock. American Association of Nurserymen
2. Harris, R. W., and Clark, J. R., and Matheny, N. P.1999. *Arboriculture - Integrated Management of Landscape Trees, Shrubs, And Vines,* 3rd Edition. Prentice Hall 684
3. Clark, J. R., and Matheny, N.P, *Trees and Development*; International Society of Arboriculture, Champaign, IL 1998

B. Resume: Greg Applegate, RCA #365

PROFESSIONAL REGISTRATIONS:

American Society of Consulting Arborists #365
International Society of Arboriculture, Certified Arborist Number WE-0180a
International Society of Arboriculture, Certified Tree Risk Assessor PNC -444

EXPERIENCE:

Mr. Applegate is CEO of Arborgate Consulting, Inc. and principal consulting arborist. He has been in the horticulture field since 1963, providing professional arboricultural consulting since 1984 within both private and public sectors. His expertise includes appraisal, tree preservation, diagnosis of growth problems, construction impact mitigation, expert witness work, tree risk assessment, pruning supervision and specifications, species selection and construction monitoring.

Mr. Applegate has consulted for insurance companies, campuses, developers, theme parks, homeowners, homeowners' associations, landscape architects and contractors, property managers, attorneys and government.

Notable projects on which he has consulted are: Disneyland, Disneyland Hotel, DisneySeas-Tokyo, Disney's Wild Animal Kingdom, the New Tomorrowland, Disney's California Adventure, Disney Hong Kong project, Knott's Berry Farm, J. Paul Getty Museums, Tustin Ranch, Newport Coast, Crystal Court, Newport Fashion Island Palms, Bixby Ranch Country Club, Playa Vista, Laguna Canyon Road and Myford Road for The Irvine Company, MTA Expo Line, MWD-California Lakes, Paseo Westpark Palms, Loyola-Marymount campus, Cal Tech, Cal State Long Beach, Pierce College, The Irvine Concourse, UCI, USC, UCLA, LA City College, LA Trade Tech, Riverside City College, Crafton Hills College, MTA projects, and the State of California review of the Landscape Architecture License exam (re: plant materials)

EDUCATION:

Bachelor of Science in Landscape Architecture, California State Polytechnic University, Pomona 1973
Arboricultural Consulting Academy (by ASCA) Arbor-Day Farm, Kansas City 1995
Continuing Education Courses in Arboriculture, required to maintain Certified Arborist status and for ASCA membership

PROFESSIONAL AFFILIATIONS:

American Society of Landscape Architects (ASLA), Full Member
American Society of Consulting Arborists (ASCA), Full Member
International Society of Arboriculture (ISA), Regular Member
California Oak Foundation, member
California Tree Failure Report Program, UC Davis, Participant
Street Tree Seminar (STS), Member

COMMUNITY AFFILIATIONS:

ASCA, Industry definitions committee and A3G committee 2009-2012
Landscape Architecture License Exam, Reviewer, Cal Poly Pomona (1986-90)
American Institute of Landscape Architects (L.A.) Board of Directors (1980-82)
California Landscape Architect Student Scholarship Fund - Chairman (1985)
International Society of Arboriculture - Examiner-tree worker certification (1990)
Guest lecturer at UCLA, UCI, Cal Poly, Saddleback College, & Palomar Junior College

C. Photographs

Camphor #1 ➔

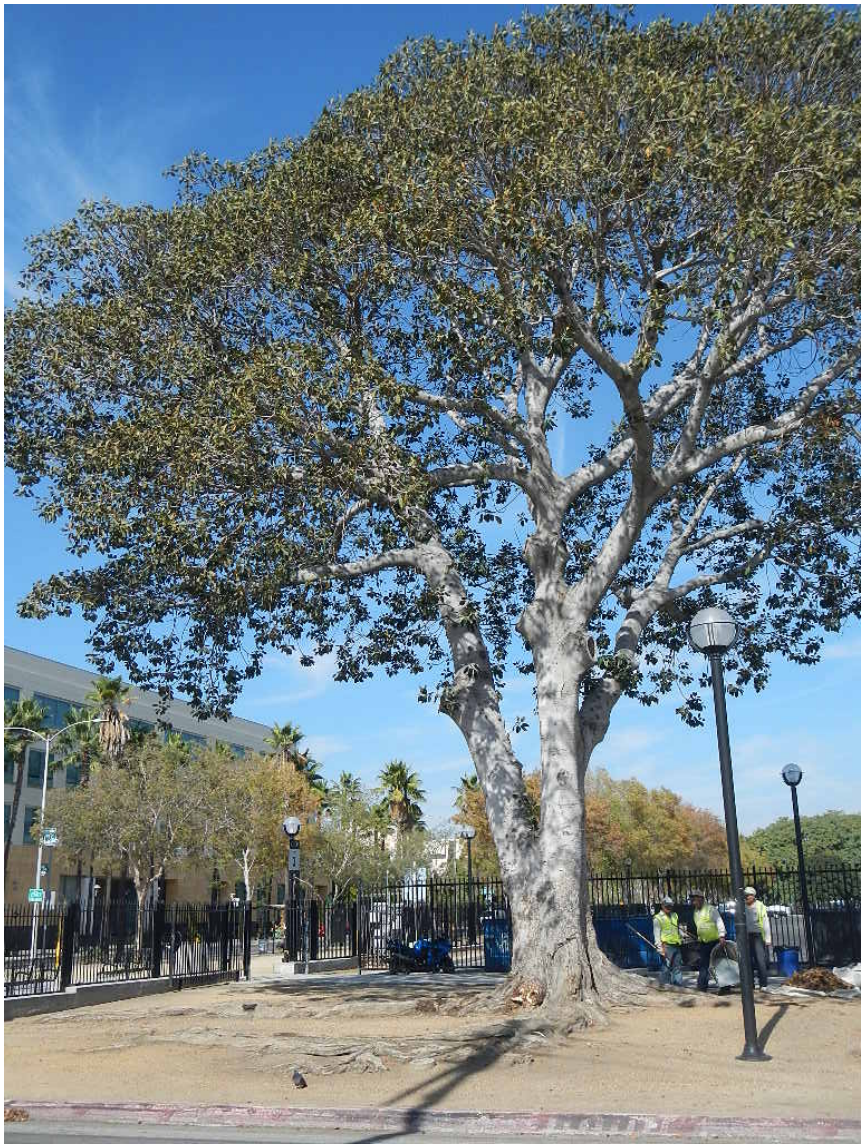




Lot 2



Lot 3 – Chinese elms along the west edge are included in this report, but are not expected to be significantly affected by construction.



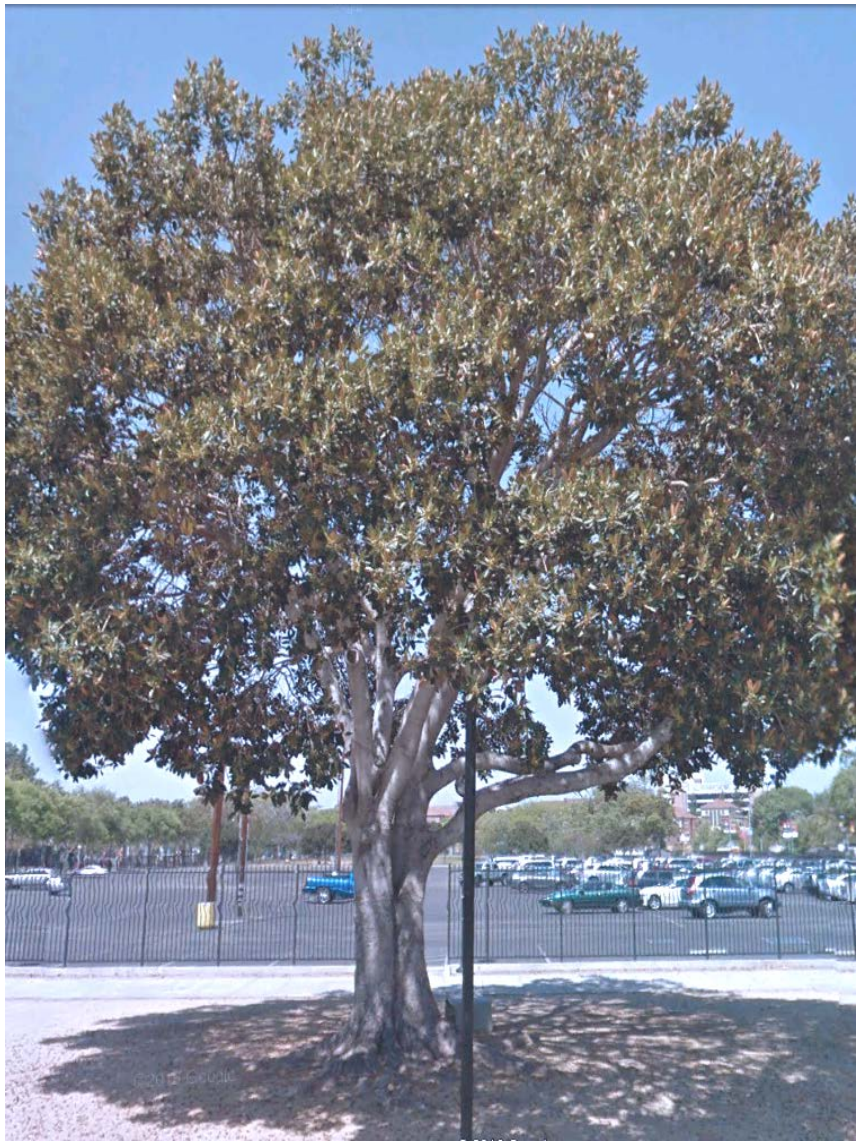
Ficus #2



Ficus #3



Base of Ficus #2 – note decay conks and rot from left to right.



Ficus #4



Ficus #5



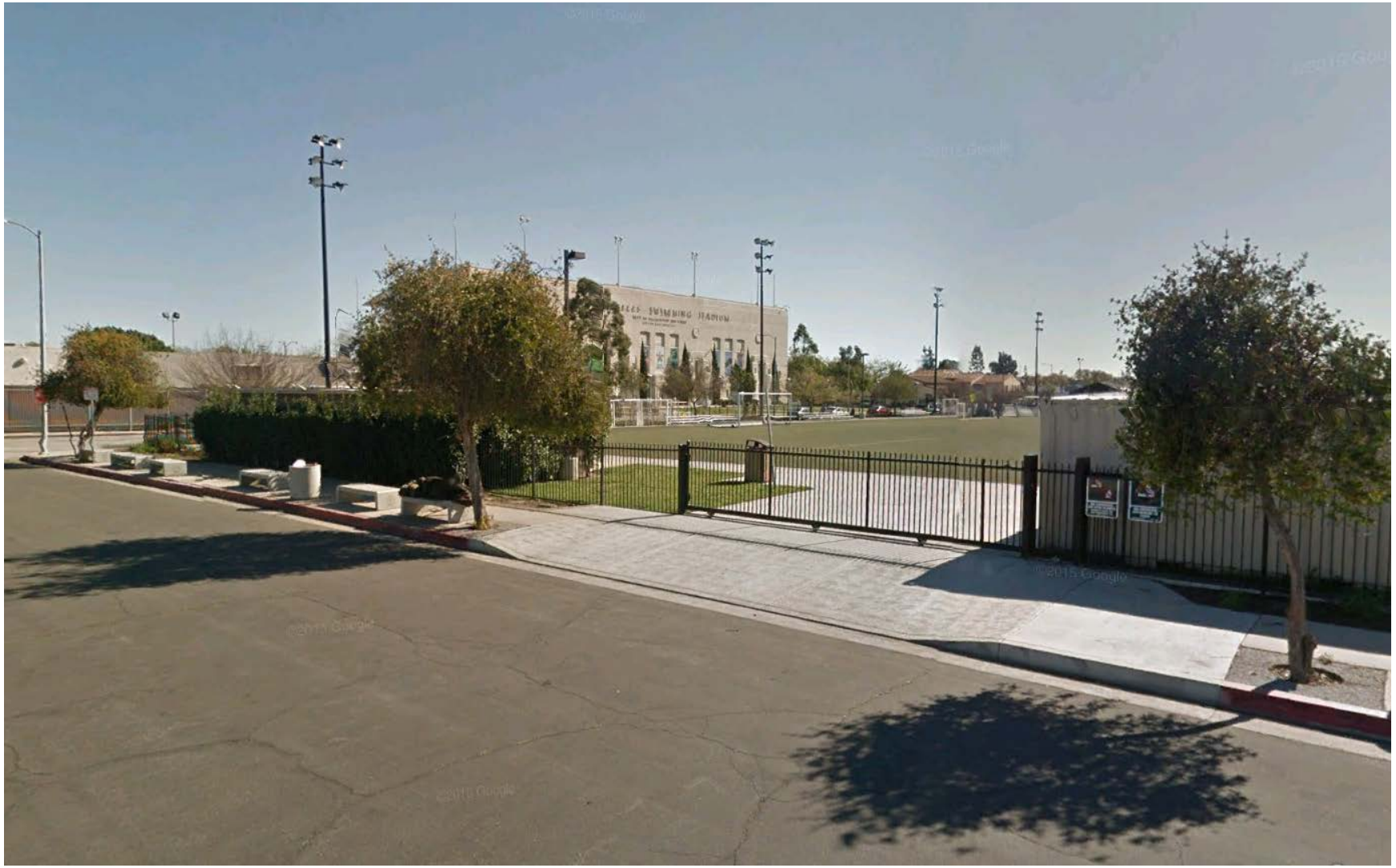
Ficus #5 and 6 at the right – note trunk parked on root zone.



Ficus #6 – note decayed root cut for sidewalk, probably a decade ago.



Ficus #6 –note maintenance truck parked on roots.



Bottlebrush on the south side of Leighton.



#7 Yew pine – note codominant trunk with included bark.


Topped Canary Island pines on Martin Luther King.



Elms along Bill Robertson Lane.



Chinese elm bosque, north of 39th Street.

D. Glossary

ANSI-A300	American National Standards Institute performance standards for the care and maintenance of trees, shrubs and other woody plants.
Arboricultural	Pertaining to the awareness, care, evaluation, identification, growing, maintenance, management, planting, selection, treatment, understanding, valuation and so forth of trees and other woody plants and their growing environments, particularly in shade and ornamental (non-crop/commodity) settings.
Arborist	A person possessing the technical competence through experience and related training to provide for or supervise the management of trees or other woody plants in a landscape setting.
ASCA	The American Society of Consulting Arborists, Inc. a professional society, as described in its by-laws.
Bark	Tissue on the outside of the vascular cambium. Bark is usually divided into inner bark - active phloem and aging and dead crushed phloem - and outer bark.
Caliper	Diameter of a nursery-grown or small size tree trunk. Larger trees are usually measured at 4.5 feet (see DBH) Trees with calipers 4 inches and below are measured at 6 inches above grade(ANSI Z60-1-1990) Trees above 4 inches, but still transplantable are measured at 12 inches above grade.
Canopy	The live, foliage-bearing part of a tree.
Climbing spurs	Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers
Codominant	Leaders equal in size and relative importance, developed from 2 apical buds at the top of a stem. Each codominant stem is an extension of the stem below it. There are no branch collars or trunk collars at the bases of codominant stems.
Compaction	(Soil Compaction) The compression of soil, causing a reduction of pore space and an increase in the bulk density of the soil. Tree roots cannot grow in compacted soil.
Conifer	Cone bearing shrub or tree, e.g. pines and cypress (or modified cone-like structure as in Podocarpus and Taxus)
Crotch	The union of two or more branches; the axillary zone between branches.
Crown	The upper portions of a tree or shrub, including the main limbs, branches, and twigs.

DBH	Diameter of the trunk, measured at breast height or 54 inches above the average grade. See caliper.
Decay	Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
Deciduous	Trees or shrubs which shed their leaves at the end of each growing season.
Decline	Progressive reduction of health or vigor of a plant.
Dieback	Progressive death of buds, twigs and branch tissues, on individual limbs, or throughout the canopy.
Dripline	A projected line on the ground that corresponds to the spread of branches in the canopy; the farthest spread of branches.
Epicormic	Epi - upon; cormic – stem. Branches that are upon the stem, i.e. sprouting from either dormant buds in the cambial zone, or from buds sprung anew from ray traces. Epicormic shoots are a sign that energy reserves have been lowered.
Fertilization	The process of adding nutrients to a tree or plant; usually done by incorporating the nutrients into the soil, but sometimes by foliar application or injection directly into living tissues.
Flush cut	Pruning technique in which both branch and stem tissue are removed, generally considered poor practice
Foliage	The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.
Girdling root	A root that partially or entirely encircles the trunk and/or buttress roots, which could restrict growth and downward movement of photosynthate and/or water and nutrients up.
Heading	Pruning techniques where the cut is made to a bud, weak lateral branch or stub.
Included bark	Bark or cortex tissue that is included or trapped between close-growing branches. Usually found in narrow or tight crotches.
Leader	A main stem or branch of a tree that is (usually) codominant with other main stems.
Limb	A large lateral branch growing from the main trunk.
Lion-tailing	The removal of all, or a great deal of, the inner branches and/or watersprouts from the crown of a tree. Lion's Tailing is not an acceptable pruning practice, see ANSI A-300.10.1.7.
Mature	Plant will respond to flower-inducing conditions, in contrast with juvenile.

Over-lifted	removing more than the lower one third of scaffold limbs.
pH	An indication of acidity and alkalinity, pH is the common logarithm of the reciprocal of the hydrogen ion concentration of a solution. A pH of 7.0 is exactly neutral, larger numbers indicate increasing alkalinity, and lower numbers indicate increasing acidity.
Root system	The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.
Root zone	The area and volume of soil around the tree in which roots are normally found. May extend to three or more times the branch spread of the tree, or several times the height of the tree.
Scaffold limb	Primary structural branch of the crown.
Species	Taxonomic classification below genus.. 1. A group of plants with common characteristics or consistent differences in morphology, ecology or reproductive behavior, distinct from others of the same genus. 2. The basic unit in plant taxonomy; the Latin binomial consisting of the genus and specific epithet; it is both singular and plural.
Specimen	a tree or shrub large or striking enough to make an immediate, significant impact in a planting, or a single large plant in a conspicuous location in the garden. *Sunset Western Garden Book*
Street tree	A tree growing adjacent to dedicated roadways and within the city's right of way.
Stress	"Stress is a potentially injurious, reversible condition, caused by energy drain, disruption, or blockage, or by life processes operating near the limits for which they were genetically programmed." Alex Shigo
Trees	An arborescent woody plant, with a single or few trunks near the base
Trunk	The main stem or axis of a tree that is supported and nourished by the roots and to which branches are attached.
Value	The relative worth, merit, or importance of a thing, expressed as a single point, a range, or a relationship to a benchmark.

Disclaimer

Good current information on tree preservation has been applied. However, even when every tree is inspected, inspection involves sampling, therefore some areas of decay or weakness may be missed. Weather, winds and the magnitude and direction of storms are not predictable and some failures may still occur despite the best application of high professional standards. Future tree maintenance will also affect the trees health and stability and is not under the supervision or scrutiny of this consultant. Continuing construction activity such as trenching will also affect the health and safety, but are unknown and unsupervised by this consultant. Trees are living, dynamic organisms and their future status cannot be predicted with complete certainty by any expert. This consultant does not assume liability for any tree failures involved with this project.

Certification

I, Gregory W. Applegate, certify to the best of my knowledge and belief:

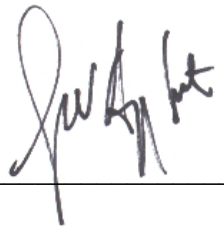
That the statements of fact contained in this report are true and correct. That the report analysis, opinions, and conclusions are limited only the reported assumptions and limiting conditions, and are my personal unbiased professional analysis, opinions and conclusions.

That I have no present or prospective interest in the vegetation that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

That my compensation is not contingent upon a reporting that favors the cause of the client, the attainment of stipulated result, or the occurrence of a subsequent event.

That my analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the standards of arboricultural practice.

That I have made a personal inspection of the plants that are the subject of this report. No one provided significant professional assistance to the person signing this report.

Arborgate Consulting, Inc.
Gregory W. Applegate, ASCA, ASLA  Date 2-22-17
Registered Consulting Arborist #365
Certified Arborist WE-0180a

Appendix I

Phase I and II Environmental Site Assessments

Appendix I.1

Phase I ESA
Parking Lots 1 and 1A

CONVERSE CONSULTANTS

Phase I Environmental Site Assessment Report

Parking Lots 1 and 1A
Northeast Corner of Martin Luther King Jr Boulevard & Vermont Avenue
Los Angeles, California

Converse Project No. 17-42-106-01
February 6, 2017

Prepared For:

University of Southern California
3335 South Figueroa Street
Unit G | UGW 110
Los Angeles, California 90089-72-71

Prepared By:

Converse Consultants
3176 Pullman Street
Suite 108
Costa Mesa, California 92626

Converse Consultants
Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

February 6, 2017

Brian C. League
Executive Director, Real Estate Development
Real Estate & Asset Management
University of Southern California
3335 S. Figueroa St., Unit G | UGW 110
Los Angeles, California 90089-7271

Subject: **PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**
Parking Lots 1 and 1A
Northeast Corner of Marin Luther King Jr. Boulevard & Vermont Avenue
Los Angeles, California
Converse Project No. 17-42-106-01

Mr. League:

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a Phase I Environmental Site Assessment (Phase I ESA) that was conducted at the referenced property (Property).

A summary of the assessment is presented in the Executive Summary, as well as in Sections 8.0, 9.0, and 10.0 of the report. Recognized Environmental Conditions were not identified during this assessment.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact Laura Tanaka at (714) 444-9660.

CONVERSE CONSULTANTS

Kristin Tsumura
Staff Environmental Scientist

Laura Tanaka
Principal Environmental Scientist

Dist.: 1/Addressee via Electronic Mail (PDF Format)

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Executive Summary

The following is an Executive Summary of the Phase I Environmental Site Assessment (Phase I ESA) that was conducted by Converse Consultants (Converse). Please refer to the appropriate sections of the report for a complete discussion of these issues. In the event of a conflict between this Executive Summary and the report, or an omission in the Executive Summary, the report shall prevail.

This report presents the results of the Converse Phase I ESA performed at Parking lots 1 and 1A in the City of Los Angeles, Los Angeles County, California, referred to as the Property in this report. Converse was retained by the University of Southern California to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical within the scope of an ESA, Recognized Environmental Conditions (RECs) in connection with the Property.

Converse has compiled and reviewed information that was obtained from interviews, document research, and on-site and area reconnaissance to identify potential environmental conditions at the Property, in conformance with the ASTM Standard E: 1527-13 Environmental Site Assessment Standard Practice (ASTM Standard: E1527-13). This Phase I ESA was conducted during the period of January 18, 2017 to February 6, 2017.

The Property is located generally west of the Los Angeles Memorial Coliseum and consists of multiple parcels which comprise a parking lot and a soccer field. The portion of the Property designated as Parking Lot 1 is located north of Martin Luther King (MLK) Jr. Boulevard, between Vermont Avenue and Bill Robertson Lane. The portion of the Property designated as Parking Lot 1A (soccer field) is located on the north of and contiguous with Parking Lot 1, between Vermont Avenue and Bill Robertson Lane.

As early as 1894, the Property appeared to be unimproved land. By 1907, the Property was occupied by residential dwellings and vacant parcels. In general, since 1907, the Property has been occupied by various commercial and residential buildings. By 1952, the majority of structures had been demolished or removed and the area was redeveloped for parking lots exception for the southwest corner and southeast portion of the Property which were occupied by a gas station and residential dwellings and commercial buildings respectively. By 1977, the Property were graded with the exception of the southwest corner which remained occupied by a gas station until at least 1995.

Historical information pertaining to particular parcels of Parking Lots 1 and 1A are summarized below.

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Parking Lot 1

- From 1919 to at least 1950, a battery repair facility was located at 3998 South Vermont Avenue. Additional addresses associated with this use were 935 and 937 West Santa Barbara Avenue. Permits indicated the facility was no longer present as early as 1950 to as late as 1964.

- A "cleaners" and sign painting facility were present at 3980 South Vermont Avenue as early as 1929 to 1950. Regulatory database information indicated the site as a "clothes presser cleaner and repairer."

- A garage or gas station has been present at 3986 South Vermont as early as 1923 to at least 1966. Additional use at this address was indicated to be a sign paint shop in 1930. Other address associated with this site are 3986-3988 South Vermont Avenue and 927-939 West Santa Barbara Avenue.

- A gas station was located at 3996-3998 South Vermont Avenue as early as 1966 to at least 1996 when the USTs were reportedly removed. Other addresses associated with this site include 3996 South Vermont Avenue/MLK Jr Boulevard and 933 MLK Jr Boulevard and 933 W. Santa Barbara Avenue. Records indicated that 933 Santa Barbara Boulevard was occupied by Texaco had a 1974 permit for a car wash discharge into a clarifier system.

Parking Lot 1A

- A used car and auto sales facility was located at 3952-3954 South Vermont Avenue in 1950.

- A used car office was located at 3960 South Vermont as early as 1929. In 1946, permits indicted a wash rack and spray booth were located at this site. It appears an auto repair facility has been located at this address to at least 1952.

- 3966 South Vermont Avenue was identified in the regulatory database as a historical cleaners in 1937. The information indicated it was a "clothes pressers and cleaners."

- An auto garage and sales room were located at 3968 South Vermont Avenue from 1925 to at least 1951.

- 3972 South Vermont has had an auto related use as early as 1925 (garage) to 1952. Permits have indicated a "cabbie garage" was present in 1937. An auto sales and service facility with USTs was also indicated on-site in 1937 (Smitty's Auto Station) to at least 1952.

Historical uses at the Property have included auto related businesses, a battery repair facility, cleaners and a gas station. These historical uses are not considered RECs due to the lack of records or evidence indicating spills and leaks, or associated

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contamination. However, these historical uses are potential environmental concerns due to the types of businesses and associated hazardous materials associated with the businesses.

A gas station was located on the southwest corner for the Property from 1982 to 1996. The USTs have reportedly been removed. Records from the city of Los Angeles Fire Department (LAFD) were requested for this site; however, a response was not received during the timeframe of this assessment.

This assessment has revealed no evidence of RECs in connection with the Property. However, potential environmental concerns were identified on-site based on historical uses. In order to reduce uncertainties, additional assessment would need to be conducted. The additional assessment should include soil and soil vapor sampling.

In addition, records regarding the former on-site gas station were not received during the timeframe of this assessment. A geophysical survey could be conducted in the area of the former gas station to further evaluate the presence, or absence, of USTs and other subsurface features.

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1.0 Introduction

1.1 Purpose and Scope of Services

This report presents the results of the Converse Consultants (Converse) Phase I Environmental Site Assessment (ESA) performed at Parking lots 1 and 1A in the City of Los Angeles, Los Angeles County, California, referred to as the Property in this report. Converse was retained by the University of Southern California (USC) to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical, Recognized Environmental Conditions (RECs) in connection with the Property. The term Recognized Environmental Conditions is defined in Section 1.1.1 of the American Society of Testing and Materials (ASTM) Standard Practice as *the presence or likely presence of any hazardous substances or petroleum products in, at or on a property due to any release to the environment; under conditions indicative of a release to the environment; under conditions that pose a material threat of a future release to the environment.*

This Phase I ESA was completed in accordance with our proposal dated January 18, 2017. Our work consisted of the following and was completed in general conformance with the scope and limitations of the ASTM Practice E1527-13 and complies with standards and practices set forth in 40 Code of Federal Regulations (CFR) Part 312 for AAI.

- Interviews with the Property owner representatives
- Property and vicinity reconnaissance
- Review of regulatory agency records
- Description of physical setting
- Historical review
- Interviews with public agency personnel
- Preparation of this report

1.2 Non-Scope Considerations

There are a number of non-scope issues which are sometimes assessed concurrently with a Phase I ESA. Unless specifically agreed in the contract proposal documents, these non-scope considerations are not included as part of the Phase I assessment. Examples of non-scope issues include:

- Asbestos-containing building material
- Lead-base Paint
- Wetlands
- Radon
- Lead in Drinking Water
- Regulatory Compliance

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- Cultural & Historic Resources
- Industrial Hygiene
- Health & Safety
- Mold
- Diffuse Anthropogenic Pollution
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Biological Agents
- Non-liquid Polychlorinated Biphenyls

No Non-scope issues were addressed in this report.

1.3 Significant Assumptions

No assumptions were made for this assessment that need to be noted as significant.

1.4 Limitations and Exceptions

The following limitations and exceptions were encountered during the course of this assessment:

- At the time of the reconnaissance, the soccer field and associated storage buildings were gated and locked.
- Requests for information regarding the Property were requested the City of Los Angeles Fire Department (LAFD); however, a response was not received during the timeframe of this assessment.

1.5 Special Terms and Conditions

No other users were identified.

1.6 Reliance

This report is for the sole benefit and exclusive use of the University of Southern California in accordance with the terms and conditions attached to our proposal under which these services have been provided. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. The Scope of Services associated with the report was designed solely in accordance with the objectives, schedule, budget, and risk-management preferences of the University of Southern California.

This report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is

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present at the Property. Converse makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation of the property at the time of the assessment. Also, events may occur after the Property visit, which may result in contamination of the Property. Additional information, which was not found or available to Converse at the time of report preparation, may result in a modification of the conclusions and recommendations presented.

Any reliance on this report by Third Parties shall be at the Third Party's sole risk. Should the University of Southern California wish to identify any additional relying parties not previously identified, a completed *Application of Authorization to Use* (see Appendix A of this report) must be submitted to Converse Consultants.

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2.0 Property Description

2.1 Current Use(s) of the Property

The Property is owned by the State of California, operated as Expo Park and currently used as a soccer field and parking lot. The soccer field, which is designated Parking Lot 1A, is managed by the City of Los Angeles Recreation and Parks Department.

A Property location map and a field generated Property plan are provided in Appendix B. Pertinent Property photographs are provided in Appendix C.

2.2 Location and Legal Description

The Property is located generally west of the Los Angeles Memorial Coliseum. Parking Lots 1 and 1A are contiguous to each other. Parking Lot 1 is located north of Martin Luther King (MLK) Jr. Boulevard, between Vermont Avenue and Bill Robertson Lane. Parking Lot 1A (soccer field) is located on the north side of Parking Lot 1, between Vermont Avenue and Bill Robertson Lane.

The Property is located in the City of Los Angeles, Los Angeles County, California. It is located approximately ½-mile west of Interstate 110 (Harbor Freeway) and 1.7-miles south of Interstate 10 (Santa Monica Freeway).

The Los Angeles County Assessor's Parcel Numbers for the Property are 5037-027-905, -924, -925, -926, -927, -928, -929, -930, -931, -932, -933 and -34.

2.3 Zoning Information

According to the City of Los Angeles, Planning Department, the zoning for the Property is RD1 Restricted Density Multiple Dwelling Zone and C2 Commercial Zone.

2.4 Property Characteristics

The Property is identified as Parking Lots 1 and 1A and consist of multiple rectangular-shaped parcels. The Property is generally level and the majority of the Property is covered with an asphalt-paved parking (Parking Lot 1) and grass turf soccer field (Parking Lot 1A).

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The Property is bound by Leigh Avenue to the north, Martin Luther King Jr. Boulevard to the south, Bill Robertson Lane to the east, and South Vermont Avenue to the west.

2.5 Description of Property Structure(s)

The southern portion of the Property is occupied by Parking Lot 1. No structures are present in Parking Lot 1; however, in the south center portion there are two (2) storage bins and trash receptacles.

The northern portion of the Property is occupied by Parking Lot 1A and used as a soccer field. The soccer field contains five (5) storage buildings and one (1) building with restrooms and storage.

The following services were present at the Property at the time of the assessment.

- Electricity: City of Los Angeles Department of Water and Power (DWP)
- Gas: Southern California Gas
- Potable Water: DWP
- Sanitary Sewer: City of Los Angeles
- Heating, Ventilation, Air Conditioning (HVAC): None observed
- Solid Waste: City of Los Angeles

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3.0 User Provided Information & Responsibilities

3.1 Requested Documents and Information

The ASTM E1527-13 specifies that the User provide any helpful documents that may be available. Converse requested that the User provide the following documents and information.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Material Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and Prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Property or surrounding area
- Notices or other correspondence form any government agency relating to past or current violations of environmental laws with respect to the Property or relating to environmental liens encumbering the Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded Activity Use Limitations (AULs)
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

3.2 User Provided Information

Section 6 of ASTM E1527-13 outlines specific User's responsibilities. This information will help identify the possibility of RECs in connection with the Property. The ASTM Standard provides a questionnaire to help the User to comply with the statutory requirements to perform tasks which would help identify RECs. Converse included the questionnaire as Attachment A to our proposal. In general, any Users should make Converse aware of information they have regarding the following:

- Environmental Cleanup Liens filed or recorded against the Property

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- Activity and land use limitations that are in place on the Property or have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the Legal Liability Protections (LLP)
- Relationship of the purchase price to fair market value of the Property if it were not contaminated
- Commonly known or reasonably ascertainable information about the Property
- The degree or obviousness of the presence or likely presence of contamination at the Property, and the ability to detect this contamination by appropriate investigation.

The following information was requested from the User(s):

3.2.1 Environmental Cleanup Liens

The User provided no information regarding environmental cleanup liens or title records.

3.2.2 Activity and Use Limitations

The User did not provide any information indicating they were aware of any AULs.

3.2.3 Specialized Knowledge or Experience

The User did not provide any information indicating they had specialized knowledge or experience related to the Property or nearby property.

3.2.4 Reason for Significantly Lower Purchase Price

Converse has no information regarding the purchase price of the Property or comparable properties. The User has not indicated to Converse that there is any conclusion that there was a lower purchase price because of known or suspected contamination at the Property.

3.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide any information about: past uses; specific chemicals at the Property; past spills; environmental cleanup or other reasonably ascertainable information regarding the Property.

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3.2.6 Obviousness of Contamination

The User did not provide any information based on their knowledge or experience that would be obvious indicators of contamination on the Property.

Unless specifically stated otherwise in the Scope of Services, the purpose of this Phase I ESA was to qualify for the landowner liability protections to CERCLA Liability as described in ASTM E1527-13.

Business risk unrelated to the CERCLA innocent landowners defense are only assessed as specifically agreed in the Scope of Services and discussed in Section 11.0, Additional Non-Scope Services, of this report.

3.3 Continuing Obligations

In order to assert a LLP, the User must satisfy a number of statutory requirements that are generally referred to as Continuing Obligations, which are outside the Scope of Services of the Phase I ESA. Examples of Continuing Obligations include providing legally required notices stopping continuing releases and complying with land use restrictions. Failure to comply with these and other statutory post-acquisition requirements will jeopardize liability protection.

It is the responsibility of the User to comply with the Continuing Obligations requirements of ASTM E1527-13 and AAI. Anyone seeking LLP protections should take independent action beyond this Phase I ESA to perfect their position.

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4.0 Owner Provided Information

The ASTM E1527-13 specifies that the Property owner and the Key Site Manager provide any helpful documents that may be available as listed below.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Material Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and Prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Property or surrounding area
- Notices or other correspondence form any government agency relating to past or current violations of environmental laws with respect to the Property or relating to environmental liens encumbering the Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded AULs
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

No information or documents were provided by the owner.

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5.0 Records Review

5.1 Physical Setting

5.1.1 Physical Setting

The Property is located approximately 175 feet above mean sea level with surface topography sloping towards the west (United States Geological Survey [USGS] Topographic Map, Hollywood, California, 1991).

5.1.2 Geology

The Property is underlain by unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 2010).

5.1.3 Groundwater

The nearest groundwater well to the Property is located approximately 2.0-miles west-southwest of the Property, near the intersection of 5th Avenue and W. 43rd Avenue. Los Angeles County, Department of Public Works (DPW) well number 2679G was last measured on September 22, 2009. At that time, the depth to groundwater was recorded at 169.6 feet below ground surface. The surface elevation was recorded at 129.9 feet.

The Property was not covered on currently published groundwater contour maps. Therefore, the direction of regional groundwater is inferred to follow surface topography to the west.

5.1.4 Potable Water Supplier

Potable water is supplied by the DWP through local water sources and importing water from the Metropolitan Water District (MWD) of Southern California.

5.2 Historical Review

5.2.1 Aerial Photograph and Map Review

Available historical aerial photographs, Sanborn maps and USGS topographic maps, as described in Table 1, were reviewed.

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Copies of the aerial photographs, Sanborn maps, and topographic maps have been provided in Appendix D.

Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
1894 1896 1898 1900 1902	Topo Maps	The Property appeared to be unimproved land. The adjoining properties appeared to be unimproved land with a street to the west. The general vicinity appeared to be occupied by a railroad to the north and southeast and scattered structures.
1907	Sanborn	The Property was occupied by single-family residential dwellings and vacant parcels. "Box stalls" were located to the east of the Property beyond Agricultural Avenue. West 48th Street bounded the Property on the north and Santa Barbara Avenue bounded the Property to the south. Located to the general east of the Property were "box stands" and a refreshment stand and coral.
1920 1921 1922	Topo Map Topo Map Sanborn	According to the Sanborn map, the Property was occupied by single-family residential dwellings, commercial properties, vacant parcels and a battery repair facility at in the southwest corner lot addressed 3998 South Vermont Avenue and 937, 935 West Santa Barbara Avenue. The adjoining properties appeared to be as follows: North – Leighton Avenue followed by vacant parcels and a gas station to the northwest (3949 S. Vermont Ave); East – Menlo Avenue followed by a track, swimming pool and vacant lots; South – W. Santa Barbara Avenue followed by vacant parcels and a Moving Pictures building, and a gas station to the southwest; West – S. Vermont Ave. followed by vacant lots and dwellings. The general vicinity appeared to be occupied by residential dwellings and commercial properties.
1926/1928 1928	Topo Map Aerial Photo	According to the aerial photo, the Property appeared to be occupied by residential dwellings and commercial buildings. The northeast corner appeared to be cleared land. According to the aerial photo and topo map, the adjoining properties appeared to be as follows: North – A street followed by vacant land with a gas station to the northwest; East – A street followed by Exposition Park, which included the Coliseum; South – A street followed by residential and commercial properties;

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		West – Commercial and residential properties. The general vicinity appeared vicinity appeared to be occupied by residential dwellings and commercial properties.
1938	Arial Photo	The Property appeared to be occupied by residential dwellings and an increase in commercial buildings. The northeast corner area appeared to be cleared land. The adjoining properties appeared to be as follows: North – A street followed by vacant land with a gas station to the northwest; East – A street followed by the Coliseum and associated structures; South – A street followed by residential and commercial properties; West – Commercial and residential properties. The general vicinity appeared vicinity appeared to be occupied by residential dwellings and commercial properties.
1948 1950	Aerial Photo Sanborn	According to the Sanborn map, the Property was occupied by multiple residential dwellings and commercial buildings. Along the western portion were auto sales and auto repair facilities. In the northwest corner was a used car sales with auto service and repair (3952-3954 S. Vermont Ave.), an auto sales and auto garage/services (3968-3972 S. Vermont Ave., Sign Painting (3980 S. Vermont). Furniture stores and commercial stores were in the southwest corner along with a restaurant and pharmacy. In the southeast corner were two restaurants. The adjoining properties appeared to be as follows: North – Leighton Avenue followed by dwellings and vacant parcels, to the northwest was a gas station (3949 S. Vermont Ave.); East – Menlo Avenue followed by a track, swimming stadium, reception center and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings and a gas station to the southwest; West – S. Vermont Ave. followed by dwellings and commercial buildings. According to the aerial photo and Sanborn map, the general vicinity appeared to be occupied by residential dwellings and commercial properties.
1952/1953 1952 1954	Topo Map Aerial Photo Sanborn	According to the Sanborn map, the western portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial buildings. The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner.

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
1954	Aerial Photo	The adjoining properties appeared to be as follows: North – Leighton Avenue followed by parking lot and a gas station to the northwest (3949 S. Vermont Ave.); East – Menlo Avenue followed by Exposition Park and Coliseum and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings and a gas station to the southwest; West – S. Vermont Ave. followed by dwellings and commercial buildings. According to the Sanborn map and aerial photo, the general vicinity appeared to be occupied by residential dwellings and commercial properties.
1957 1958	Sanborn Maps	The northern portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial buildings. The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner. The adjoining properties appeared to be as follows: North – Leighton Avenue followed by parking lot and a gas station to the northwest (3949 S. Vermont Ave.); East – Menlo Avenue followed by a track, swimming stadium, reception center and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings and a gas station to the southwest; West – S. Vermont Ave. followed by dwellings and commercial buildings. The general vicinity appeared to be occupied by residential dwellings and commercial properties.
1959 1960 1964 1964/1966	Sanborn Sanborn Aerial Photo Topo Map	According to the Sanborn map, the northern portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial buildings. The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner. According to the Sanborn maps and topo map, the adjoining properties appeared to be as follows: North – Leighton Avenue followed by parking lot and a gas station to the northwest (3949 S. Vermont Ave.); East – Menlo Avenue followed by Exposition Park and the Coliseum, and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings; West – S. Vermont Ave. followed by dwellings and commercial buildings. According to the Sanborn map and aerial photo, the general vicinity appeared to be occupied by residential dwellings and commercial properties. According to the

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		topo map, to the east of the Property was the Harbor Freeway and the general vicinity of the Property was indicated as an urban area.
1966	Sanborn	The northern portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial building and a Gas & Oil Station (3998 S. Vermont Ave. and 939 W. Santa Barbara Ave). The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner. The adjoining properties appeared to be as follows: North – Leighton Avenue followed by parking lot and a gas station to the northwest (3949 S. Vermont Ave.); East – Menlo Avenue followed by a track, swimming stadium, reception center and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings and a gas station; West – S. Vermont Ave. followed by dwelling and commercial buildings. The general vicinity appeared to be occupied by residential dwellings and commercial properties.
1968	Sanborn	The northern portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial building and a Gas & Oil Station (3998 S. Vermont Ave. and 939 W. Santa Barbara Ave). The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner. The adjoining properties appeared to be as follows: North – Leighton Avenue followed by parking lot; East – Menlo Avenue followed by a track, swimming stadium, reception center and a gas and oil station (3998 Menlo); South – W. Santa Barbara Avenue followed by commercial buildings and a gas station; West – S. Vermont Ave. followed by dwelling and commercial buildings. The general vicinity appeared to be occupied by residential dwellings and commercial properties.
1970 1972	Sanborn Topo Map	According to the Sanborn map, the northern portion of the Property was a parking lot and the southwest portion of the Property was occupied by commercial building and a Gas & Oil Station (3998 S. Vermont Ave. and 939 W. Santa Barbara Ave). The eastern portion of the Property was occupied by dwellings and commercial buildings in the southeast corner. According to the Sanborn map and topo map, the adjoining properties appeared to be as follows: North

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		– Leighton Avenue followed by parking lot; East – Menlo Avenue followed by Exposition Park and the Coliseum, swimming stadium, reception center; gas station is no longer present; South – W. Santa Barbara Avenue followed by commercial buildings and a gas station; West – S. Vermont Ave. followed by dwelling and commercial buildings. The general vicinity appeared to be occupied by residential dwellings and commercial properties. According to the topo map, to the east of the Property was the Harbor Freeway.
1977 1979 1981 1981	Aerial Photo Aerial Photo Aerial Photo Topo Map	According to the aerial photos, the Property appeared to be mostly occupied by a paved parking lot and residential dwellings on the eastern portion. In the southwest corner, there appeared to be a gas station. According to the aerial photos and topo map, the adjoining properties appeared to be as follows: North – A street followed by a parking lot; East – A street followed by Exposition Park and the Coliseum with a track and field, parking and associated buildings; South – Santa Barbara Avenue followed by commercial buildings and a gas station with a gas station to the southwest; West – Vermont Avenue followed by commercial buildings and parking lot. The general vicinity appeared to be occupied by residential dwellings and commercial buildings. According to the topo map, to the east of the Property was the 110 Harbor Freeway.
1989 1991 1994	Aerial Photo Topo Map Aerial Photo	According to the aerial photo, the Property appeared to be mostly occupied by a paved parking lot and residential dwellings on the eastern portion. In the southwest corner, there appeared to be a gas station in a different configuration. According to the aerial photo and topo map, the adjoining properties appeared to be as follows: North – A street followed by a parking lot; East – A street followed by Exposition Park and the Coliseum with a track and field, parking and associated buildings; South – Martin Luther King Jr. Boulevard followed by commercial buildings and a gas station to the southwest; West – Vermont Avenue followed by commercial buildings and parking lot. The general vicinity appeared to be occupied by residential dwellings and commercial buildings. According to the topo map, to the east of the Property was the 110 Harbor Freeway.
2002	Aerial	The Property buildings were no longer present. The

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
2005	Photos	Property appeared to be a parking lot and a grass field. The adjoining properties appeared to be as follows: North – A street followed by a parking lot; East – A street followed by Exposition Park, the Coliseum and associated buildings and parking lots; South – Commercial buildings and a gas station to the southwest; West – Commercial buildings and parking lot. The general vicinity appeared to be occupied by residential dwellings and commercial buildings.
2009	Aerial Photo	The Property appeared to be a parking lot and an asphalt paved lot. The adjoining properties appeared to be as follows: North – A street followed by a parking lot; East – A street followed by Exposition Park, the Coliseum and associated buildings and parking lots; South – Commercial buildings and a gas station to the southwest; West – Commercial buildings and parking lot. The general vicinity appeared to be occupied by residential dwellings and commercial buildings.
2010 2012 2012	Aerial Photo Aerial Photo Topo Map	The Property appeared to be in its present-day configuration as a parking lot and soccer field. The adjoining properties appeared to be as follows: North – A street followed by a parking lot; East – A street followed by Exposition Park, the Coliseum and associated buildings and parking lots; South – Commercial buildings and a gas station to the southwest; West – Commercial buildings and parking lot. The general vicinity appeared to be occupied by residential dwellings and commercial buildings. According to the topo map, to the east of the Property was the 110 Harbor Freeway.

5.2.2 Building Permit Review

Available building permits were reviewed from the City of Los Angeles, Department of Building & Safety. Historic addresses were identified as residential dwellings and commercial properties. Notable building permits are summarized below.

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3952 South Vermont
1923:
A new construction permit was issued in January to construct a real estate office. No existing buildings were present.

3954 South Vermont
1932:
In January, a permit was issued to demolish and remove a residential dwelling.

3960 South Vermont
1923:
A building permit was issued in December to demolish a vacant two-story residence and garage.

1929:
A building permit was issued in April to relocate a used car office 100 feet back. The Property contained two buildings, a used car office and shed.

1946:
A building permit was issued to alter/repair a wash rack and spray booth. The owner was identified as George Fry.

In March, a building permit was issued to construct a repair garage.

3962 South Vermont
1949:
A building permit was issued in November to alter a store.

1951:
In August, a building permit was issued to demolish and grade a store. The building was described as a masonry building and owned by the State of California.

3961 South Vermont
1924:
A permit to relocate a store was issued in September. In December, a permit was issued to demolish a store building.

3966 South Vermont
1924:
A building permit was issued to construct a new store building.

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3968 South Vermont

1924:

A permit was issued in December to move a residential building and add a new foundation.

1925:

In January, a permit was issued to construct an auto garage and sale room.

A permit was issued in April to construct a new building. The purpose of the building was described as an auto salesroom and garage.

1931:

A permit was issued in May to build a new front and remove three partitions over a balcony for a furniture store.

1951:

A permit was issued to demolish a store building.

3972 South Vermont

1920:

A permit was issued to construct a real estate building.

1921:

A permit was issued to construct a four-bedroom dwelling for 3972½ South Vermont Avenue.

1925:

A building permit was issued to construct a public garage addressed 3972-974 South Vermont Avenue.

1927:

A permit was issued in May to alter a public garage.

1937:

A building permit was issued to alter a cabbie garage.

3980 South Vermont

1908:

A permit was issued to construct a four-bedroom residential dwelling.

1923:

A building permit was issued to construct a five-room store.

1937:

A building permit was issued to alter an awning for a “Cleaners”.

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A building permit from March indicated the Property was occupied by a store and residential dwelling. The owners were identified as George and Mary Vartanian.

3984 South Vermont
1930:
A permit was issued to move an office 100 feet. The owner was identified as Clark Motor Co.

1951:
A permit was issued to demolish and grade a store building.

3986 South Vermont
1922:
A permit was issued to construct a private storage building.

1923:
In April, a permit was issued for a garage. The owner was identified as Vermont Sign Co.

1930:
A permit was issued to cut a building in half. The use of the building was reported as a sign painting shop.

1958:
A building permit was issued to construct new roof signs. The owner was identified as Foster & Kleiser.

3990 South Vermont
1922:
A permit was issued in December to construct a real estate office.

1926:
A building permit was issued to construct a furniture store.

1934:
A sign permit was issued in September for a furniture store.

1984:
A Certificate of Occupancy was issued on February 10 for a retail store and pharmacy, packaged food only. The owner was identified as Ed Borquez.

1989:

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A permit was issued to demolish a retail/pharmacy building. The owner was identified as LA Coliseum Commission.

3992 South Vermont

1982:

A permit was issued for a retail store and the owner was identified as Edward Borquez. The work was described as changing the Property building to a food establishment.

3996 South Vermont

1982:

A building permit was issued in July for a new building described as a Service Station Canopy/Cashier's Booth/Gas Island. The owner was identified as Al-Sal Oil Co.

1983:

A Certificate of Occupancy was issued on January 10 for a 1 story, service station; canopy/cashier booth/gas island. The owner was identified as Al Sal Oil Co.

1995:

Permits were issued to demolish two kiosks, canopy and islands. The owner was identified as Al-Sal Oil Co.

1996:

In January, an application for grading permit was issued to Al-Sal Oil Co to remove five underground storage tanks (20,000 gallons each) and excavate and backfill. The "LA Fire Department permit #4522, was issued on December 13, 1995 and the Bureau of Engineering approval for lateral support of public way obtained on December 4, 1995".

3998 South Vermont

1919:

A permit was issued in March to construct a building for battery service. The owner was identified as Westin Auto and Electric Co.

1974:

In October, a permit was issued to install a pole sign for Los Angeles City Standard #109. Plot plans indicated the Property was occupied by a Texaco Station.

923-39 West Santa Barbara & 3992-98 South Vermont

1964:

A building permit was issued to demo store buildings. The owner was identified as Texaco Oil Co.

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5.2.3 City Directories

A city directory search was completed on the Property by EDR. The complete city directory is provided in Appendix E, EDR-City Directory.

The Property was identified under the following listings in the directories published during the years indicated:

Table 2 – City Directory Summary

Property Address	Listing	Year
3960 S. Vermont Ave.	• Residential	1924
	• Shawk Wm Used Cards	1937
3962 S. Vermont Ave.	• Residential	1933
3964 S. Vermont Ave.	• Shepard Harry Plumber	1924
	• Vermont Sign Co.	1933 1937
3966 S. Vermont Ave.	• Residential	1924
	• Hughes Paint Co.	1929
	• Poe Walton Naomi Printer	1933
3968 S. Vermont Ave.	• Blacklock Oliver Auto Apr	1924
	• Schreiner Fred Rena Autos	1929
	• Furniture	1933
	• Coliseum Furniture Co.	1937 1942
3980 S. Vermont Ave.	• Fry Bros/Fry Auto Mech. • Ironwork	1929 1933
	• Residential	1937 1942
3986 S. Vermont Ave.	• Schwanzara Alfd Signs	1924 1933 1942
3990 S. Vermont Ave.	• S. Vermont Ave. People Outfitting Co. Furn.	1951

5.2.4 Data Failure

Historical information regarding the Property as early as 1894 indicated the Property as undeveloped land. Therefore, there is no historical data failure for this assessment.

5.2.5 Summary of Historical Property Use

As early as 1894, the Property appeared to be unimproved land. By 1907, the Property was occupied by residential dwellings and vacant parcels. In general, the Property has been occupied by various commercial and residential buildings. By 1952, the majority of structures had been demolished or removed and the area was redeveloped for parking lots exception for the southwest corner and southeast portion of

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the Property which were occupied by a gas station and residential dwellings and commercial buildings respectively. By 1977, the Property were graded with the exception of the southwest corner which remained occupied by a gas station until at least 1995.

The Property consists of two areas: Parking Lot 1 and Parking Lot 1A. Provided below is a historical summary for each area.

Parking Lot 1

- In 1919, a building permit was issued 3998 South Vermont Avenue for a battery service building. In 1922 the addresses for the battery repair facility were indicated as 3998 South Vermont Avenue, and 935 and 937 West Santa Barbara Avenue. The facility was no longer present by 1950. A building permit from 1964 indicated that 923-938 West Santa Barbara Avenue/3992-98 South Vermont was issued a permit to demo store buildings that were owned by Texaco Oil Co.

- In 1937, a building permit indicated building alterations for a "Cleaners" addressed 3980 South Vermont Avenue. The address was also identified in the regulatory database as a historic cleaner from 1929 to at least 1937. In 1950, the address was depicted as a sign painting facility.

- In 1923, a permit was issued for a garage at 3986 South Vermont. In 1930, an additional permit was issued to cut the structure in half. The use of the building was a sign painting shop. In 1966, a Gas & Oil Station was depicted at 3986-3988 South Vermont Avenue and 927-939 West Santa Barbara Avenue.

- In 1966, a Gas & Oil station was present in the southwest corner at 3998 South Vermont Avenue. In 1982 a building permit was issued 3996 South Vermont for a new service station canopy/cashier's booth/gas island. The address was listed in the regulatory listing as KWIK and Al-Sal Oil Co. with five USTs installed in 1983. The gas station remained until at least 1995. Building permits indicated the USTs were removed in 1996.

Parking Lot 1A

- In 1950, a Used Car/Auto Service was depicted at 3952-3954 South Vermont Avenue.

- A building 1929 building permit indicated a used car office was to be relocated on the Property at 3960 South Vermont. The permit indicated a used car office and shed were located on-site. In 1946, a permit to alter and repair a wash rack and spray booth were issued to

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the owner. In 1950, an Auto Repair facility was depicted at 3960 South Vermont Avenue. This use was present until at least 1952.

- A 1925 permit indicated an auto garage and sale room were constructed at 3968 South Vermont. In 1950 Auto Sale Garage was located at 3968 South Vermont Avenue and by 1951 a permit to demolish the structure was issued.

- A 1925 permit indicated a public garage was constructed at 3972 South Vermont. An alteration permit was issued in 1937 for a cabbie garage. In 1950, an Auto Sale and Service was depicted at 3972 South Vermont. The address was also identified in the regulatory database as a historic auto station in 1937 and a historic underground storage tank (UST) site under the name Smitty's Auto Station. The facility was no longer present by at least 1952.

5.2.6 Summary of Past Uses of Adjoining Properties

As early as 1894, the adjoining properties appeared to be unimproved land. By 1907, there were "box stalls" to the east of the Property and a track and swimming pool were present by 1922. In 1922, a gas station was present to the northwest, beyond Leighton Avenue, until at least 1966; and a gas station was present to the southwest, beyond W. Santa Barbara Avenue, until at least 1928 and reappeared by 1954 to at least 2012. By 1950, a gas station was constructed to the east of the southeast corner of the Property beyond Menlo Avenue until at least 1968.

In 1966, a gas station appeared to the south, beyond W. Santa Barbara Avenue, and remained until at least 1970. Other adjoining properties were occupied by residential dwellings and commercial buildings.

5.2.7 Summary of Past Uses of the Surrounding Area

As early as 1894, the general vicinity was occupied by scattered structures and railroads to the north and southeast of the Property. By 1907, "box stands" and refreshment stands were present to the east of the Property and by 1922 a track was identified to the east of the Property. The track area, which included the Coliseum, was identified as Exposition Park by 1926.

The 110 Harbor Freeway appeared to the east of the Property by at least 1964. The general vicinity was occupied by residential dwellings and commercial properties as early as 1922 and remained until the present day.

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5.3 Results of Environmental Records Sources Review

An Environmental Data Resources (EDR) report of Standard Environmental Record Sources (Records) was prepared specifically for the Property. The search included queries to the following databases for cases within specified ASTM search distances. A copy of the EDR Radius Map Report is provided in Appendix F.

5.3.1 Property Listings

The Property was identified on the following databases in the EDR report:

- Vartaman Geo, 3980 S. Vermont Ave.

  EDR Historical Cleaner
  EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

  The Property address was listed in 1929 and 1933 as Lubbers Anna a clothes pressers cleaners and repairers; in 1937, the Property address was listed as Vartaman Geo a clothes pressers and cleaners.

- Fry Bros, 3972 S. Vermont Ave.

  EDR Historical Auto Stations
  EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

  The Property address was listed in 1937 as Fry Bros, an automobile repairing facility.

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- Mains C L, 3966 S. Vermont Ave.

  EDR Historical Cleaners
  The Property address was listed in 1937 as Mains CL, a clothes pressers and cleaners.

- Smitty's Auto Station, 3972 S. Vermont Ave.

  Historical and Active Underground Storage Tank (UST) Sites
  An inventory of USTs identified on the following databases: Facility Inventory Database (CA FID UST); UST; Hazardous Substance Storage Container Database (HIST UST); and Statewide Environmental Evaluation and Planning System (SWEEPS UST).

  The Property address was listed under Comp #5238. No other information was reported.

  CA FID UST
  The facility ID was reported as 19055998. The status was reported as active. No other information was reported.

- KWIK 19, 3996 S. Vermont Ave.

  HIST UST
  The facility was listed as a gas station under file number 00026242 and facility ID 5444. The owner was identified as Al-Sal Oil Co. The facility was reported with 5 20,000 gallon UST installed in 1983. Tank 1 contained unleaded fuel; Tank 2 contained premium fuel; Tank 3 contained unleaded fuel; Tank 4 contained premium fuel and Tank 5 contained diesel fuel. All 5 tanks were constructed with a ¼ thickness with a stock inventor leak detection.

- Al Sal Oil Co. Inc., 3996 S. Vermont Ave.

  SWEEPS UST
  The facility was listed with a creation date of February 29, 1988. The facility contained five USTs with motor vehicle fuel.

  CA FID UST
  The facility was listed under Facility ID 19023611 and Regulated ID 00005444.

5.3.2 Adjoining Properties

The following adjoining properties were identified in the EDR report:

- Secoll Jos, 3971 S. Vermont (EDR Map ID No. A5). This site is located west of the Property, beyond South Vermont Avenue, and was identified on the following database.

  EDR Hist Cleaners
  The facility was listed as SECOLL JOS in 1937 as a clothes pressers and cleaners.

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- Colemans G W Super Service Station, 3941 and 3949 S. Vermont Avenue (EDR Map ID No. C8 and C9). This site is located northwest of the Property, beyond South Vermont Avenue, and was identified on the following database.

  EDR Historical Auto Station
  The facility was listed from 1924 to 1937 as Coleman GW and Colemans GW Service Station. In 1937, the facility was identified as Fielding JF an automobile repair and in 1942 as Coon W E, a gasoline and oil service station.

- C and K Self Service Inc. 1, 1010 West Martin Luther King Jr. Blvd. (EDR Map ID No. B10). This site is located southwest of the Property, beyond West Martin Luther King Jr. Boulevard, and was identified on the following database.

  Hist UST
  The facility owner was identified as Shell Oil Company. It was reported the facility contained four 10,000 gallon USTs of fuel product.

- Shell, 1010 West Martin Luther King Jr. Blvd. (EDR Map ID No. B11, B13). This site is located southwest of the Property, beyond West Martin Luther King Jr. Boulevard, and was identified on the following database.

  Leaking Underground Storage Tank (LUST) Site
  The facility was listed as a completed case closed LUST site. The potential media affected was listed as soil and potential contaminants of concern was reported as aviation. The case was opened in May 1989 and completed in October 1997.

  HIST CORTESE
  The Reg ID was reported as 900370052

  RCRA-SQG
  The facility was listed as a small quantity generator with no violations found.

  FINDS
  The registry ID was reported as 110012231888.

  ECHO
  The ENV ID was reported as 1004678096.

- D&J Shell Service, 1010 West Martin Luther King Jr. Blvd. (EDR Map ID No. B12). This site is located southwest of the Property, beyond West Martin Luther King Jr. Boulevard, and was identified on the following database.

  EDR Hist Auto
  The facility was listed as D&J Shell Service in 1994. In 2011 and 2012, the facility was reported as Vermont Gas.

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- Yang's Shell, 1010 West Martin Luther King Jr. Blvd. (EDR Map ID No. B14, B15, B16). This site is located southwest of the Property, beyond West Martin Luther King Jr. Boulevard, and was identified on the following database.

  UST
  The facility ID was reported as 24748.

  SWEEPS UST
  The facility was listed with three UST of motor vehicle fuel.

  CA FID UST
  The facility ID was reported as 19003553 with an active status.

5.3.3 Other Off-site Locations of Concern

Other off-site locations of concern identified by EDR within a maximum one-mile radius from the Property included registered UST sites, LUST sites, hazardous waste generators, and permitted hazardous materials handlers.

The potential for environmental concern to the Property from these off-site locations appears to be low due to one or more of the following: type of regulatory listing; type of resource (soil) affected, location with respect to the direction of regional groundwater, distance from the Property; status of the case; remedial efforts being directed by a regulatory agency; and/or potential responsible parties have been identified.

5.3.4 Orphan Listings

The EDR database report identified six (6) orphan listings. The locations of sites that were identified by address were found to be in the general vicinity of the Property; however, due to distance, location with respect to the direction of regional groundwater, and/or type of listing were determined to have a low potential for environmental concern to the Property.

Other orphan sites were identified only by street name. These street names were found in the general vicinity of the Property; however, the specific site locations could not be determined. These orphan sites appeared to have a low potential for environmental impact to the Property due to one or more of the following: type of regulatory listing; and/or potential responsible parties have been identified.

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5.4 Additional Environmental Record Sources

5.4.1 U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA)

PHMSA online mapping system for gas transmission pipelines or hazardous liquid pipelines in Los Angeles County was reviewed (https://www.npms.phmsa.dot.gov/default.htm). No pipelines are located on the Property or adjacent properties.

5.4.2 California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC)

No information regarding the Property was on file with DTSC.

The Envirostor website (http://www.envirostor.dtsc.ca.gov/public/) was reviewed for information, and the Property and adjoining properties were not listed in the database.

5.4.3 Cal/EPA, Los Angeles Regional Water Quality Control Board (RWQCB)

The RWQCB had no records on file regarding the Property.

The Geotracker website (http://geotracker.waterboards.ca.gov/) was reviewed for information, and the Property was not listed in the database. However, the following adjoining properties were identified and are summarized below:

4004 South Vermont Avenue, (Chevron #9-7757)
South the Property beyond West Martin Luther King Jr. Boulevard is the location of this former Chevron station. The facility was listed as a completed case closed LUST site. The leak was discovered on January 21, 1988 and the case was closed on February 26, 1997. The potential media of concern was reported as soil and the potential contaminant of concern was diesel. No other information was provided on Geotracker.

1010 Martin Luther King Jr. Boulevard, Shell
Southwest of the Property beyond the intersection of South Vermont Avenue and Martin Luther King Jr. Boulevard is a completed case closed LUST site. The leak was discovered on May 17, 1989 and reported on May 21, 1992. The case was closed and completed on October 29, 1997. It was reported the potential media of concern was soil and the potential contaminants of concern were identified as “aviation”.

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5.4.4 California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

According the DOGGR District 1 Map (http://maps.conservation.ca.gov/doms/doms-app.html), there are no oil or gas wells/fields located on the Property or adjacent properties.

5.4.5 South Coast Air Quality Management District (SCAQMD)

Files for the Property are summarized below:

933 Martin Luther King Jr. Boulevard
A permit to operate was issued on August 8, 1984 for Al-Sal Oil Co., located at 933 Martin Luther King Jr. Boulevard. The equipment included four gasoline USTs, 16 gas dispensing nozzles and a vapor recovery system.

3996 S. Vermont/Martin Luther King Jr. Boulevard
A permit to operate was issued on February 24, 1990 for Al-Sal Oil Co., Kwik Gas #19 located at 3996 S. Vermont/Martin Luther King Jr. Boulevard. Equipment and fuel storage was described as four USTs each with a capacity of 20,000-gallons; 16gasoline dispensing nozzles vented to a vapor recovery; one UST for diesel fuel at 20,000 gallons and two diesel dispensing nozzles.

A facility equipment list report for Al-Sal Oil Co. (3996 S. Vermont Avenue) stated an inspection of the address was conducted in June 2002. The inspection found the facility was out of business and all equipment was removed. There were inactive permits for NH3 & Low NOX Burners and Service Station Storage & Dispensing Gasoline. The permits were issued in August 1984 and February 1990.

Copies of the SCAQMD documents are provided in Appendix G.

5.4.6 Los Angeles County, Department of Health Services (DHS), Public Health Investigation

Information was requested from DHS but was not received in time for inclusion in this report.

5.4.7 City of Los Angeles, Bureau of Sanitation, Industrial Wastewater Discharge Information

The City contained a permit for a car wash located at Texaco Inc. One permit was dated in November 1964 for 933 West Santa Barbara Avenue

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and another was a canceled permit dated for March 1974 for 931 West Santa Barbara Avenue.

The discharging liquid waste included car washing and floor washing soap and detergent. The permit was for a new discharge to a sewer. Required treatment was noted as clarification with a required treatment facility “3 cc 6’x2’x2’”.

Copies of the permits are provided in Appendix G.

5.4.8 City of Los Angeles Fire Department (LAFD)

There is no information regarding the Property on file with LAFD.

5.4.9 Methane Area

The Property is not located within the City of Los Angeles Methane Zone.

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6.0 Property Reconnaissance

6.1 Methodology

On January 25, 2017, Converse visited the Property to evaluate present use and to identify observable environmental conditions at the Property. Our methodology involved walking the perimeters, center lines, while noting observed evidence of present and potential environmental concerns.

A field-generated map is provided in Appendix B. Pertinent Property photographs are provided in Appendix C.

6.2 Limiting Conditions

Converse's findings are based on the Property conditions observed on Wednesday, January 25, 2017.

Limiting conditions included the locked gate for the soccer field (Parking Lot 1A) and associated storage buildings and restrooms. Access to these areas was not gained.

6.3 Interior Observations of Property

No buildings are located on Parking Lot 1. Access to the interior the building located on Parking Lot 1A was not accessed.

6.4 Exterior Observations of Property

During our Property visit, Converse made the following observations of the exterior of the Property:

Table 3 – Exterior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Hazardous Substances & Petroleum Products:	☐	☒	
Storage Tanks & Related Equipment:	☐	☒	

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Table 3 – Exterior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Odors:	☐	☒	
Standing Surface Water or Other Pools of Liquid:	☐	☒	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:	☐	☒	
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):	☐	☒	
Pits, Ponds, or Lagoons:	☐	☒	
Stained Soil or Pavement:	☒	☐	Minor surface staining was observed scattered over the parking areas of the Property. The stains appeared to be from routine vehicle parking.
Stressed Vegetation (other than from insufficient water):	☐	☒	
Evidence of Mounds, Depressions or Filled or Graded Areas Suggesting Trash or Other Solid Waste Disposal:	☐	☒	
Waste Water or any discharge (including storm water) into a Drain, Ditch, or Stream on or Adjacent to the Property:	☐	☒	
Wells (active, inactive, or abandoned):	☐	☒	
Septic Systems or Cesspools:	☐	☒	
Prior Structures:	☐	☒	
Roads, Tracks, Railroad Tracks or Spurs:	☒	☐	The Property is bound by Leighton Avenue to the north, Bill Robertson Lane to the east, W. Martin Luther King

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Table 3 – Exterior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
			Jr. Boulevard to the south and S. Vermont Ave. to the west.

In addition to the above items, Converse also made the following observations:

- Located in the center of the southern boundary is a gated area with two storage containers and trash bins. The area appeared to contain storage for trash equipment and maintenance supplies.
- The Property is surrounded by wrought iron fences.
- Access to the Property is located along the eastern boundary on Bill Robertson Lane.

6.5 Current Uses of Adjoining Properties

Based on our research and observations during our Property visit, the Property is bordered by the following:

Table 4 – Adjoining Property Use

Direction	Current Development
North:	Leighton Avenue followed by Parking Lot 2, which is associated with Exposition Park.
Northeast:	Bill Robertson Lane followed by the Los Angeles Memorial Coliseum.
Northwest:	Intersection of S. Vermont Avenue and Leighton Avenue followed by Nancy Auto Sale (3943 S. Vermont).
South:	Martin Luther King Jr. Boulevard followed by (west to east): • Yoshinoya, 4004 S. Vermont Avenue • BK Clothes and parking lot, 910 W. Martin Luther King Jr. Boulevard • Vacant restaurant, 900 W. Martin Luther King Jr. Boulevard
Southeast	Intersection of Bill Robertson Lane/Menlo Avenue and W. Martin Luther King Jr. Boulevard followed by Kidney Center (900 W. Martin Luther King Jr. Boulevard).
Southwest:	Intersection of S. Vermont Avenue and W. Martin Luther King Jr. Boulevard followed by Vermont Oil (1010 W. Martin Luther King Jr. Boulevard).
East:	Bill Robertson Lane followed by (north to south): • Los Angeles Memorial Coliseum, 3911 S. Figueroa Street • John C. Argue Swim Stadium, 3980 Bill Robertson Lane • Ahmanson Senior Center, 3990 Bill Robertson Lane
West:	S. Vermont Avenue followed by (north to south): • Vacant clothing store, 3953 S. Vermont Avenue

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Table 4 – Adjoining Property Use

Direction	Current Development
	• South Los Angeles WorkSource Center, 3965 S. Vermont Avenue • Sherwin Williams Automotive Finishes, 3983 S. Vermont Avenue • Carl's Jr. 1001 W. Martin Luther King Jr. Boulevard

6.6 Current Uses of Surrounding Area

Based on our research and observations during our Property visit, the surrounding area of the Property consists of Exposition Park, which includes the Los Angeles Memorial Coliseum and various Museums. Residential dwellings and commercial businesses are also located in the surrounding area.

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7.0 Interviews

During the interviews, the owners and occupants were asked if they had any available documents that would be helpful. The documents that were requested are detailed in Section 3.1 of this report:

7.1 Property Owner

The Property is currently owned by the State of California. No owner interview was conducted during this assessment.

7.2 Tenant/Occupant

The Property is currently occupied by a parking lot and soccer field. No tenants occupy the Property.

An Expo Park employee stated all the storage buildings on the soccer field contained sports gear (i.e. soccer nets and equipment). The employee also stated the buildings were just storage, all offices are located at the Coliseum facility.

7.3 State or Local Government Officials

According to Bellete Yohannes, Chief Environmental Compliance Inspector II with the Industrial Waste Management Division, there were no citations for the Property addresses for the past five years. The only records for the provided historic addresses was for a car wash located on the corner of S. Vermont Avenue and Martin Luther King Jr. Boulevard.

7.4 Owners and Occupants of Neighboring Sites

No owners or occupants of neighboring sites were interviewed during this assessment.

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8.0 Findings

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- The Property is located generally west of the Los Angeles Memorial Coliseum and consists of multiple parcels which comprise a parking lot and a soccer field. The portion of the Property designated as Parking Lot 1 is located north of MLK Jr. Boulevard, between Vermont Avenue and Bill Robertson Lane. The portion of the Property designated as Parking Lot 1A (soccer field) is located on the north of and contiguous with Parking Lot 1, between Vermont Avenue and Bill Robertson Lane.

- As early as 1894, the Property appeared to be unimproved land. By 1907, the Property was occupied by residential dwellings and vacant parcels. In general, since 1907, the Property has been occupied by various commercial and residential buildings. By 1952, the majority of structures had been demolished or removed and the area was redeveloped for parking lots exception for the southwest corner and southeast portion of the Property which were occupied by a gas station and residential dwellings and commercial buildings respectively. By 1977, the Property were graded with the exception of the southwest corner which remained occupied by a gas station until at least 1995.

  Historical information pertaining to particular parcels of Parking Lots 1 and 1A are summarized below.

  Parking Lot 1

  - From 1919 to at least 1950, a battery repair facility was located at 3998 South Vermont Avenue. Additional addresses associated with this use were 935 and 937 West Santa Barbara Avenue. Permits indicated the facility was no longer present as early as 1950 to as late as 1964.

  - A “cleaners” and sign painting facility were present at 3980 South Vermont Avenue as early as 1929 to 1950. Regulatory database information indicated the site as a “clothes presser cleaner and repairer.”

  - A garage or gas station has been present at 3986 South Vermont as early as 1923 to at least 1966. Additional use at this address was indicated to be a sign paint shop in 1930. Other address associated with this site are 3986-3988 South Vermont Avenue and 927-939 West Santa Barbara Avenue.

  - A gas station was located at 3996-3998 South Vermont Avenue as early as 1966 to at least 1996 when the USTs were reportedly removed. Other addresses associated with this site include 3996 South Vermont Avenue/MLK Jr Boulevard

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and 933 MLK Jr Boulevard and 933 W. Santa Barbara Avenue. Records indicated that 933 Santa Barbara Boulevard was occupied by Texaco had a 1974 permit for a car wash discharge into a clarifier system.

Parking Lot 1A

- A used car and auto sales facility was located at 3952-3954 South Vermont Avenue in 1950.

- A used car office was located at 3960 South Vermont as early as 1929. In 1946, permits indicted a wash rack and spray booth were located at this site. It appears an auto repair facility has been located at this address to at least 1952.

- 3966 South Vermont Avenue was identified in the regulatory database as a historical cleaners in 1937. The information indicated it was a "clothes pressers and cleaners."

- An auto garage and sales room were located at 3968 South Vermont Avenue from 1925 to at least 1951.

- 3972 South Vermont has had an auto related use as early as 1925 (garage) to 1952. Permits have indicated a "cabbie garage" was present in 1937. An auto sales and service facility with USTs was also indicated on-site in 1937 (Smitty's Auto Station) to at least 1952.

- Adjoining property 3971 S. Vermont Avenue, located west of the Property beyond S. Vermont Avenue, was identified as a historic cleaner. The facility was identified as SECOLL JOS in 1937 as a clothes presser and cleaner.

- A gas station is currently located southwest of the Property beyond the intersection of S. Vermont Avenue and W. Martin Luther King Jr. Boulevard.

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9.0 Opinion

- Historical uses at the Property have included auto related businesses, a battery repair facility, cleaners and a gas station. These historical uses are not considered RECs due to the lack of records or evidence indicating spills and leaks, or associated contamination. However, these historical uses are potential environmental concerns due to the types of businesses and associated hazardous materials associated with the businesses.

- A gas station was located on the southwest corner for the Property from 1966 to 1996. The USTs have reportedly been removed. Records from the LAFD were requested for this site; however, a response was not received during the timeframe of this assessment.

- The current uses of the Property, parking lot and soccer field, are not considered a REC.

- Various adjacent properties were identified on regulatory databases as gas station or auto related sites and/or dry cleaners. The potential for environmental impact from these off-site sources appears to be low due relative distance and to passage of time and redevelopment of the area.

- No RECs, historical recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs) or de minimus conditions were identified at the Property.

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10.0 Conclusions and Recommendations

Converse has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-13 for Parking Lots 1 and 1A located in the City of Los Angeles, Los Angeles County, California. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report. This assessment has revealed no evidence of *recognized environmental conditi*ons in connection with the *Property*.

However, potential environmental concerns were identified on-site based on historical uses. In order to reduce uncertainties, additional assessment would need to be conducted. The additional assessment should include soil and soil vapor sampling.

In addition, records regarding the former on-site gas station were not received during the timeframe of this assessment. A geophysical survey could be conducted in the area of the former gas station to further evaluate the presence, or absence, of USTs and other subsurface features.

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11.0 Deviations and Limitations

The following limitations and exceptions were encountered during the course of this assessment:

- At the time of the reconnaissance, the soccer field and associated storage buildings were gated and locked.

- Requests for information regarding the Property were requested LAFD; however, a response was not received during the timeframe of this assessment.

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12.0 Additional Non-Scope Services

There are environmental issues outside the scope of the ASTM E1527-13 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk which is defined in the standard as "risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate…"

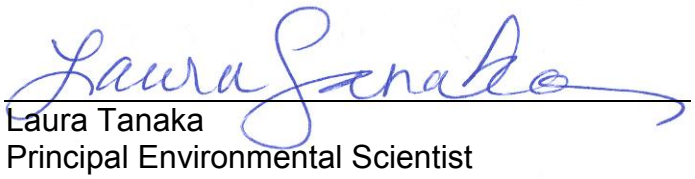
No non-scope issues were addressed in this report.

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13.0 Signature of Environmental Professional

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.



Laura Tanaka
Principal Environmental Scientist

This Phase I ESA was completed by the above Environmental Professional. A complete list of preparers, and their responsibilities for this assessment, is provided in the following section (Section 14.0, List of Preparers).

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14.0 List of Preparers

Laura Tanaka
Principal Environmental Scientist

B.S., Biology, California State Polytechnic University, Pomona, 1987
Cal/OSHA Asbestos Consultant, 11-4708
DPH Certified Lead Inspector/Assessor, #I-3086
DPH Certified Project Designer, #D-3086
DPH Certified Project Monitor, #M-3086

Ms. Tanaka is currently responsible for the day-to-day operations of the Costa Mesa office. Ms. Tanaka has 26 years' experience with Phase I and II ESAs, Preliminary Endangerment Assessments, asbestos surveys, lead-based paint surveys, abatement monitoring, as well as hazardous material audits, completing business plans, and SCAQMD permitting. Current duties at Converse include project management, business development and client maintenance, conducting/managing ESAs, and completing third party documents reviews.

Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, Historical Research, Regulatory Agency Interaction, Property Reconnaissance, Interviews, Report Generation, and Report Review.

Kristin Tsumura
Staff Environmental Scientist

B.S., Environmental Biology, California State Polytechnic University, Pomona, 2014
40-Hour HAZWOPER Certified
DPH Certified Lead Inspector/Assessor, #I-28939

Ms. Tsumura is a staff environmental professional responsible for conducting Transaction Screen Process reports, as well as assisting in the generation of Phase I Environmental Site Assessments. Ms. Tsumura has recent experience with the Los Angeles County, Environmental Health Department and the legislative and public affairs department with South Coast Air Quality Management District.

Principal area of responsibility for this ESA report: Historical Research, Regulatory Agency Interaction, Property Reconnaissance, and Report Generation.

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Application for Authorization to Use

Appendix A

Converse Project No. 17-42-106-01
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Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

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Costa Mesa, California 92626

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Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

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Applicant wishes or needs to use the referenced report because:

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Applicant Name (print): _____

Title: _____

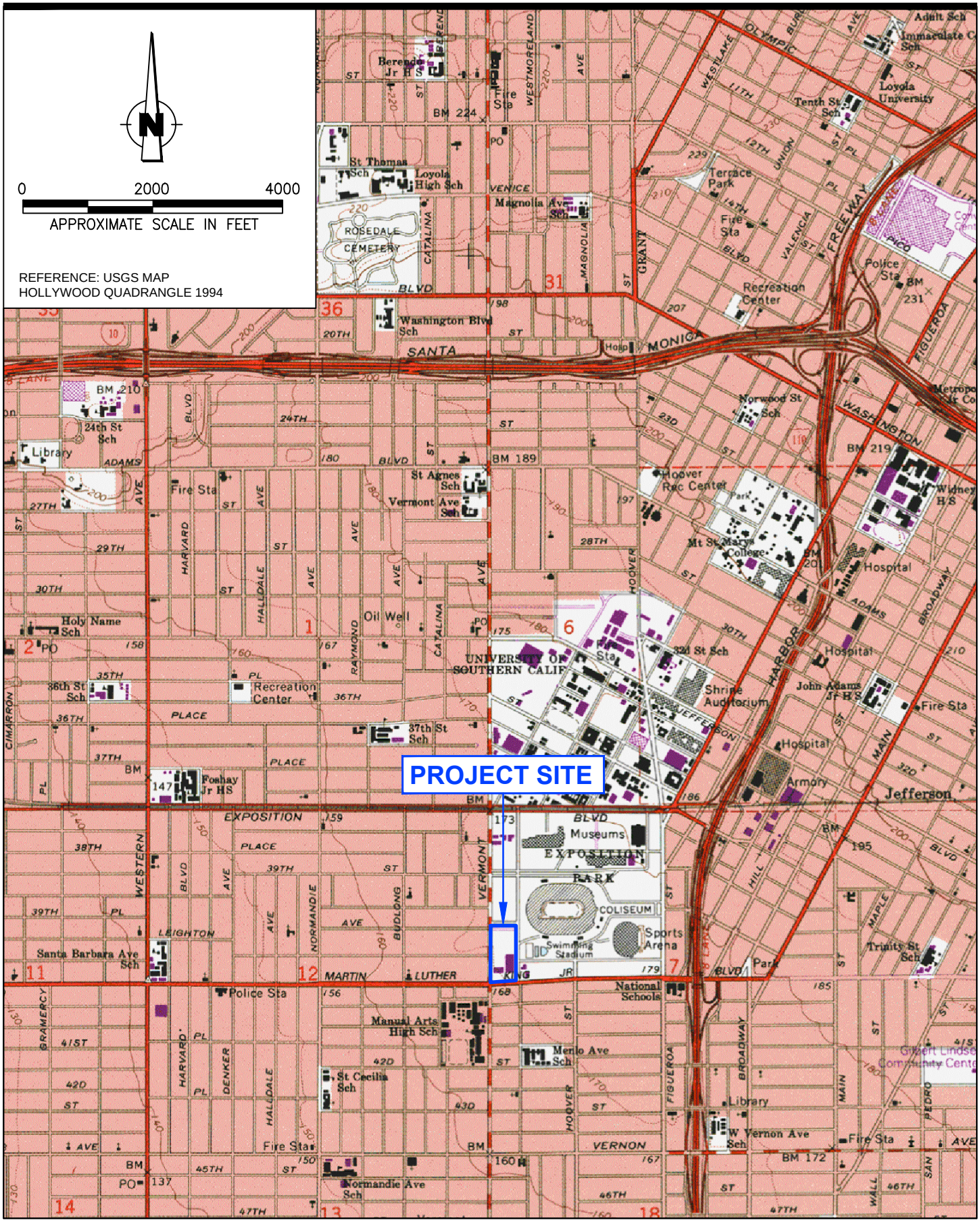
Date: _____

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Property Plans

Appendix B

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PROPERTY LOCATION MAP

Converse Consultants

USC
PARKING LOTS 1A AND 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
17-42-106-01	1

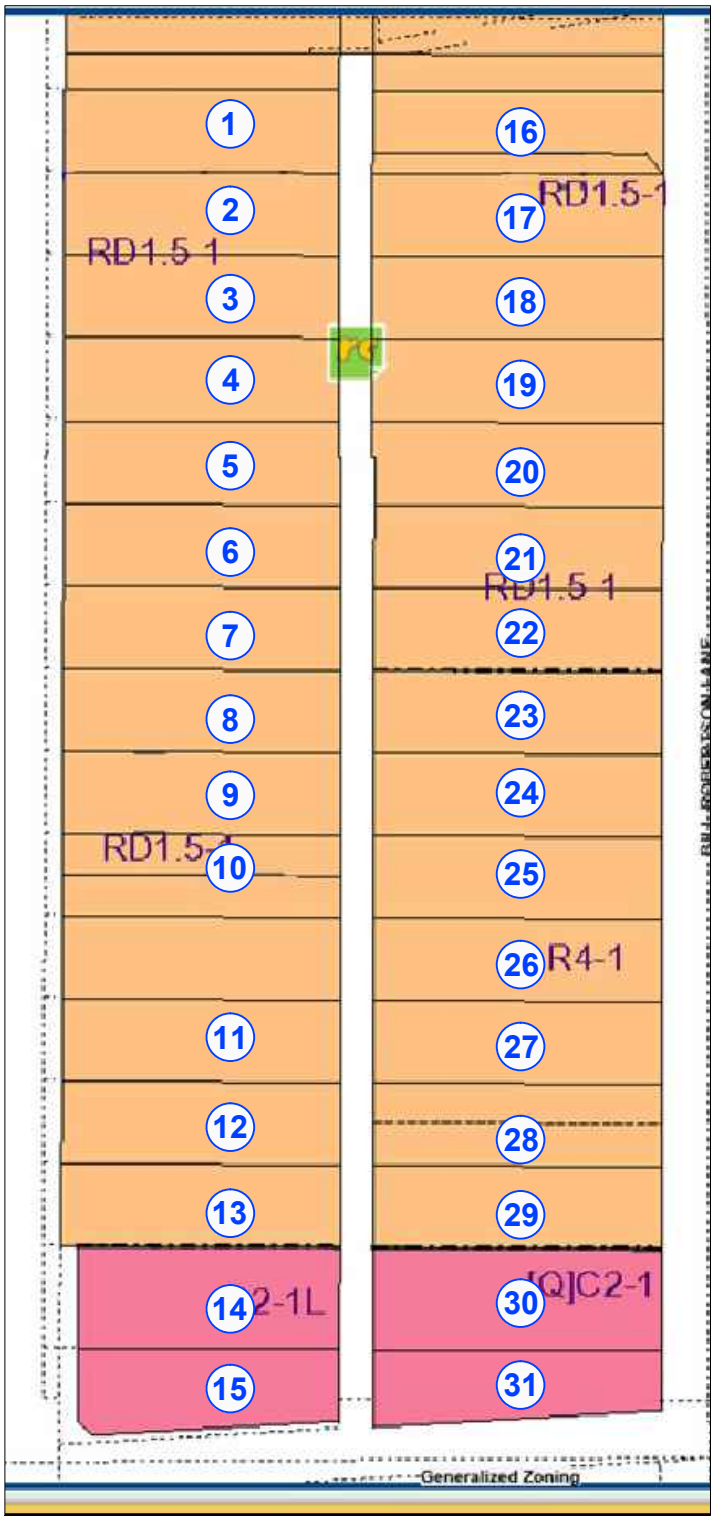


PROPERTY MAP

Converse Consultants

USC
PARKING LOTS 1A AND 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
17-42-106-01	2



REFERENCE: CITY OF LOS ANGELES ZONING MAP

ADDRESS

1. 3952 S. VERMONT
2. 3956 S. VERMONT
3. 3960 S. VERMONT
4. 3962 S. VERMONT
5. 3964 S. VERMONT
6. 3968 S. VERMONT
7. 3972 S. VERMONT
8. 3974 S. VERMONT
9. 3976 S. VERMONT
10. 3978 S. VERMONT
11. 3980 S. VERMONT
12. 3986 S. VERMONT
13. 3952 S. VERMONT
14. 3952 S. VERMONT
15. 3996 S. VERMONT
    933 W. MLK
16. 3955 BILL ROBERTSON LANE
17. 3959 BILL ROBERTSON LANE
18. 3961 BILL ROBERTSON LANE
19. 3963 BILL ROBERTSON LANE
20. 3967 BILL ROBERTSON LANE
21. 3969 BILL ROBERTSON LANE
22. 3971 BILL ROBERTSON LANE
23. 3973-3975 BILL ROBERTSON LANE
24. 3977 BILL ROBERTSON LANE
25. 3981 BILL ROBERTSON LANE
26. 3983 BILL ROBERTSON LANE
27. 3987 BILL ROBERTSON LANE
28. 3991-3/4 BILL ROBERTSON LANE
29. 3993-3995 3/4 BILL ROBERTSON LANE
30. 3997 BILL ROBERTSON LANE
31. 901,905,915 BILL ROBERTSON LANE

N

NOT TO SCALE

HISTORICAL PROPERTY ADDRESS MAP

Converse Consultants

USC
PARKING LOTS 1A AND 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No. 17-42-106-01

Figure No. 3

Pertinent Property Photographs

Appendix C

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View of Property, Parking Lot 1.



Facing north from southwest corner of Parking Lot 1.



Property, Parking Lot 1 facing south.



Gated/concrete wall in south center of Parking Lot 1.



Gated/concrete area with trash in south center of Parking Lot 1.



View of Property, Parking Lot 1A facing north.



View of Parking Lot 1A facing northwest.



Restrooms/storage building on Property, Parking Lot 1A.



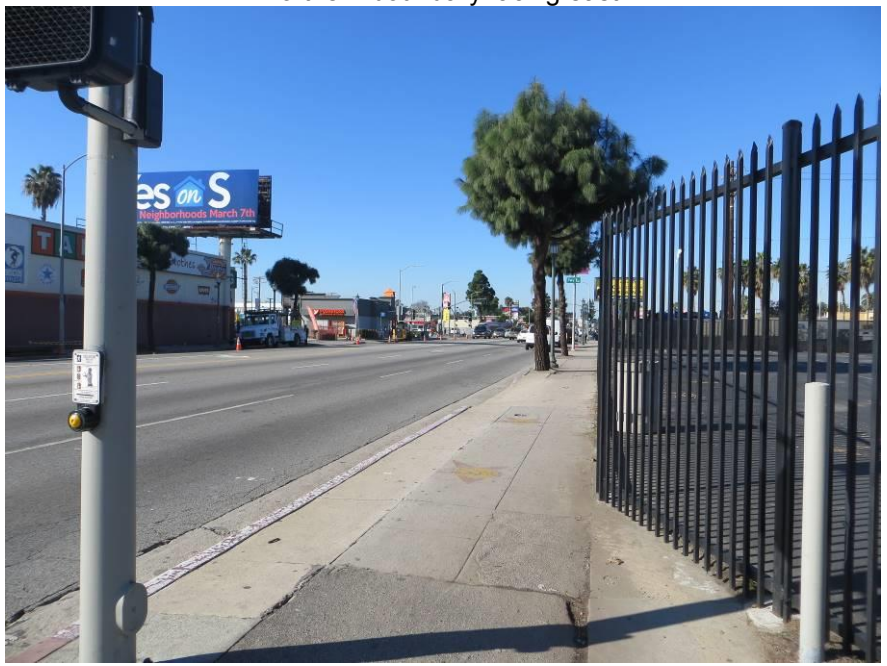
View of Parking Lot 1A facing south.



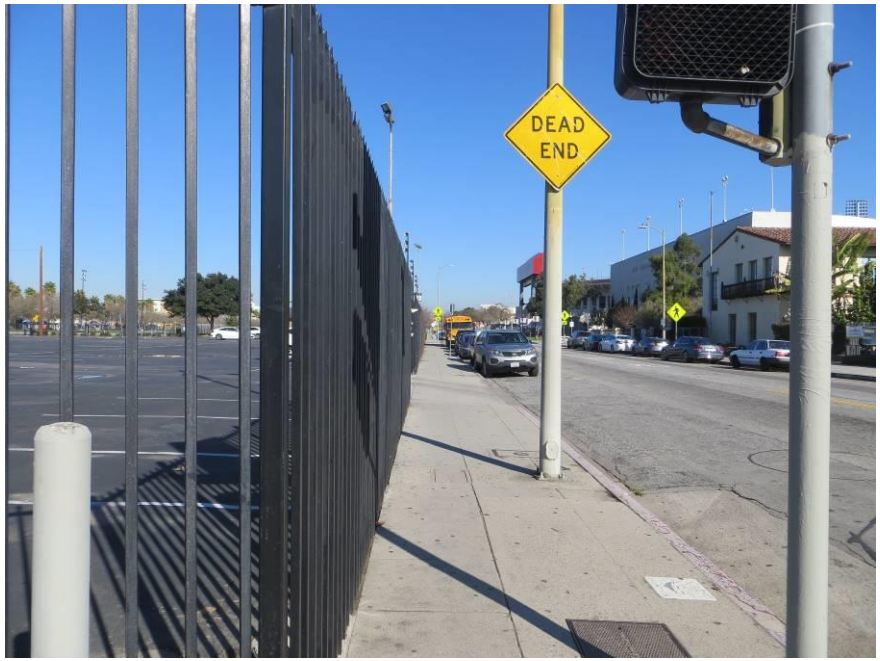
Northern boundary facing east.



Western boundary facing south.



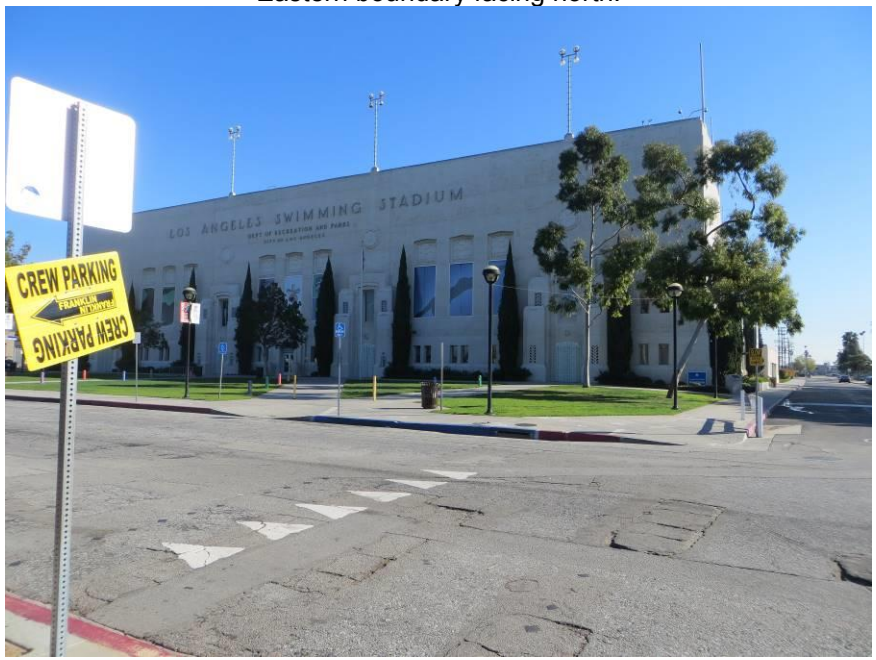
Southern boundary facing west.



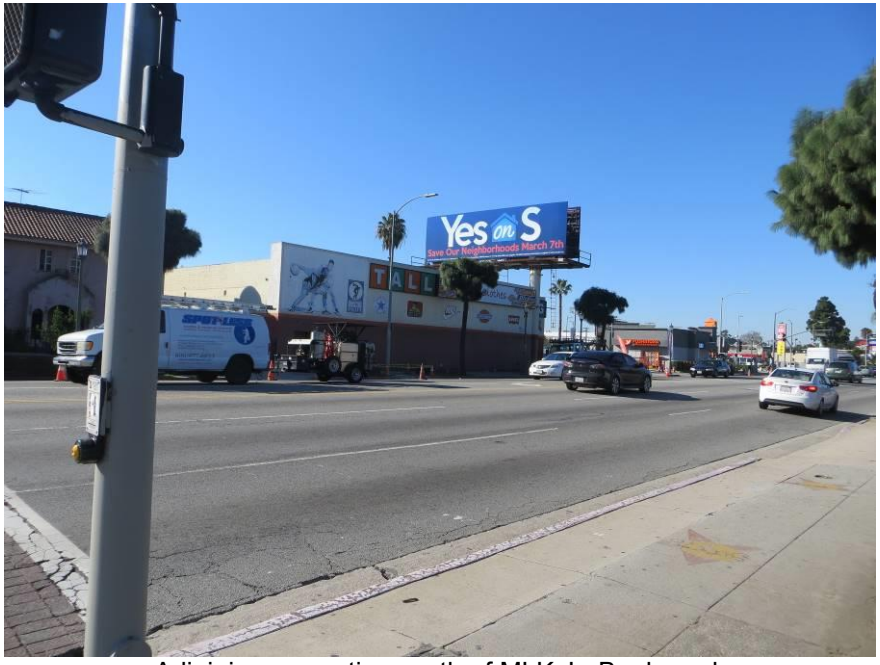
Eastern boundary facing north.



Dividing gate between Parking Lots 1 and 1A.



Swimming stadium east of Property.



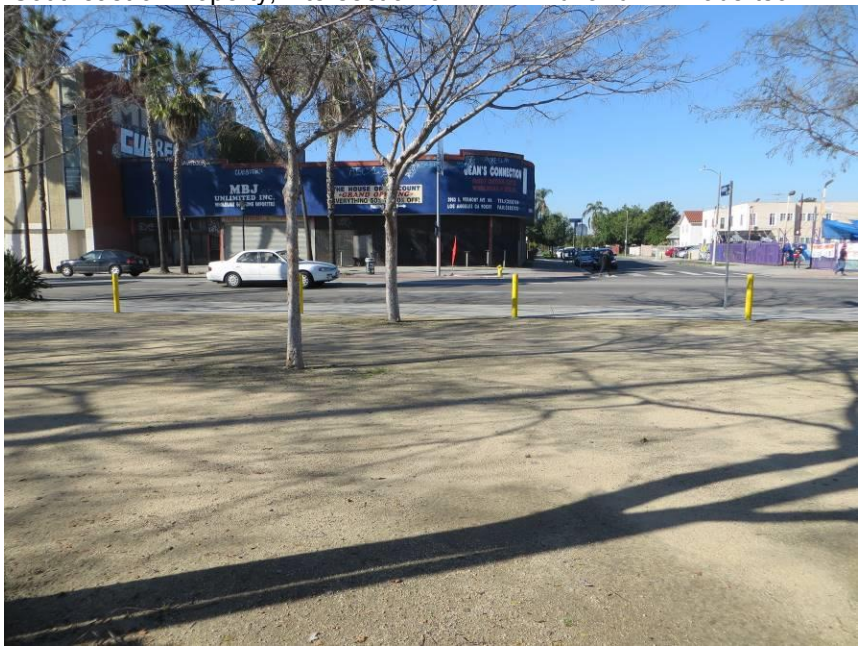
Adjoining properties south of MLK Jr. Boulevard.



Southeast of Property, intersection of MLK Blvd. and Bill Robertson Ln.



Parking lot east of southeast corner of Property.



Commercial properties west of the Property beyond S. Vermont Ave.



Gas station located southwest of the Property.

Aerials, Sanborn Maps & Topographic Maps

Appendix D

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USC/Parking Lots 1 and 1A

S Vermont Avenue and Martin Luther King Blvd

Los Angeles, CA 90037

Inquiry Number: 4831358.9

January 20, 2017

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

01/20/17

Site Name:

USC/Parking Lots 1 and 1A
S Vermont Avenue and Martin
Los Angeles, CA 90037
EDR Inquiry # 4831358.9

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Laura Tanaka

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Flight Date: June 10, 2002	USDA
1994	1"=500'	Acquisition Date: May 31, 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August 22, 1989	USDA
1981	1"=500'	Flight Date: February 21, 1981	EDR Proprietary Brewster Pacific
1979	1"=500'	Flight Date: May 11, 1979	EDR Proprietary Brewster Pacific
1977	1"=500'	Flight Date: May 29, 1977	EDR Proprietary Brewster Pacific
1964	1"=500'	Flight Date: July 28, 1964	USGS
1954	1"=500'	Flight Date: October 27, 1954	USDA
1952	1"=500'	Flight Date: August 01, 1952	USGS
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: May 22, 1938	USDA
1928	1"=500'	Flight Date: January 01, 1928	USGS

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YEAR: 2012

= 500'

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EDR



INQUIRY #: 4831358.9

YEAR: 2010

= 500'

N

EDR



INQUIRY #: 4831358.9

YEAR: 2009

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EDR



INQUIRY #: 4831358.9

YEAR: 2005

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EDR



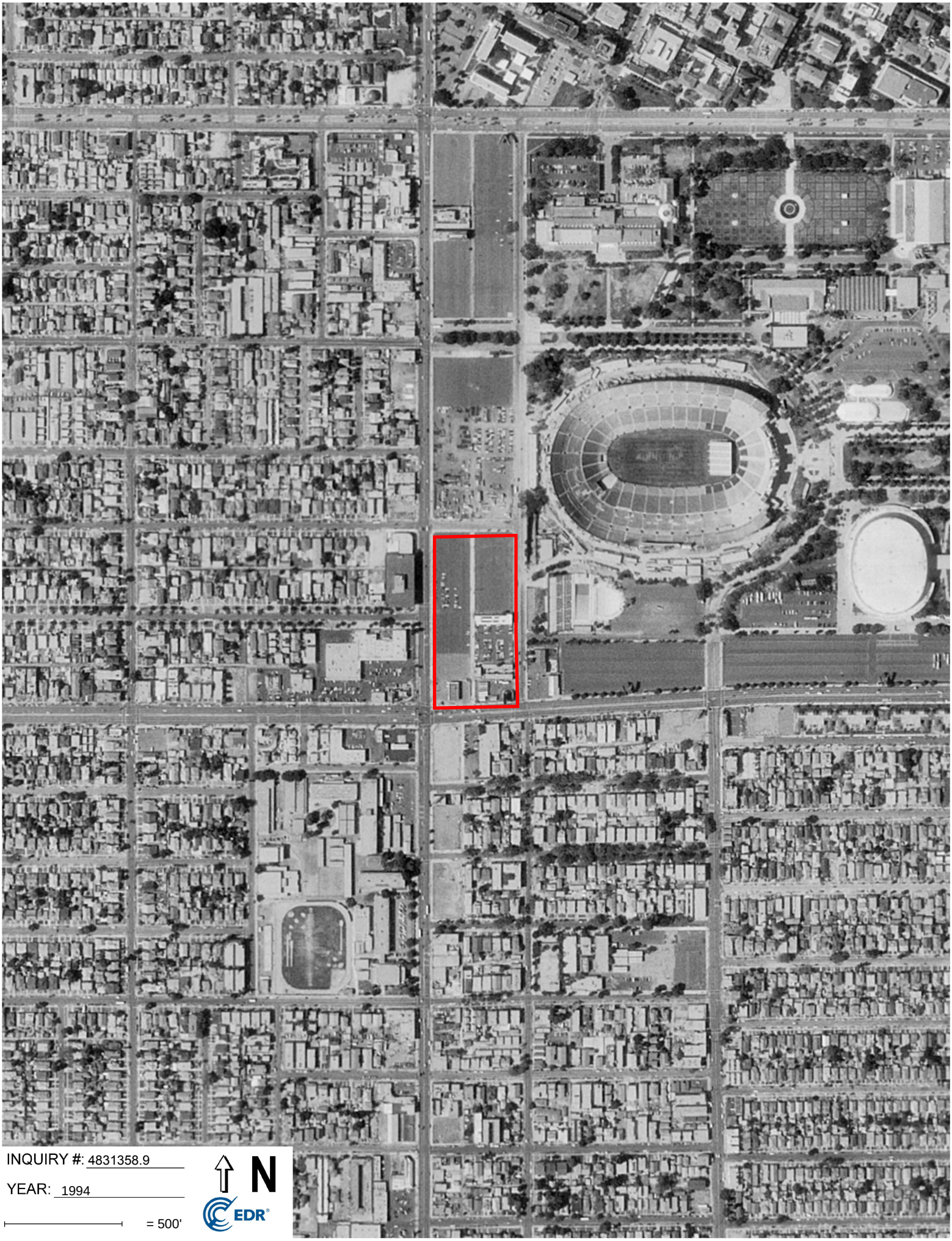
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EDR



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YEAR: 1994

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EDR



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YEAR: 1989

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EDR



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EDR



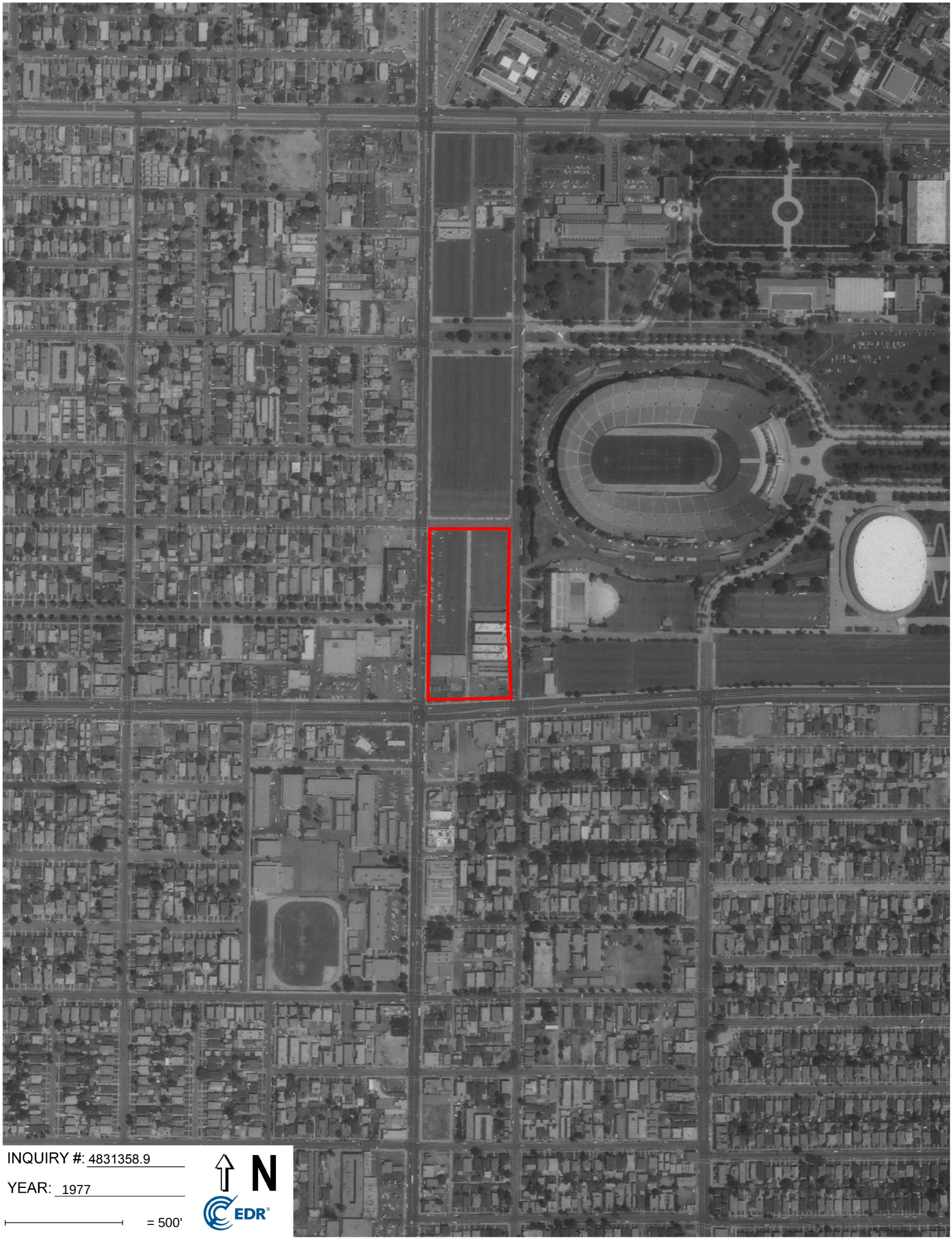
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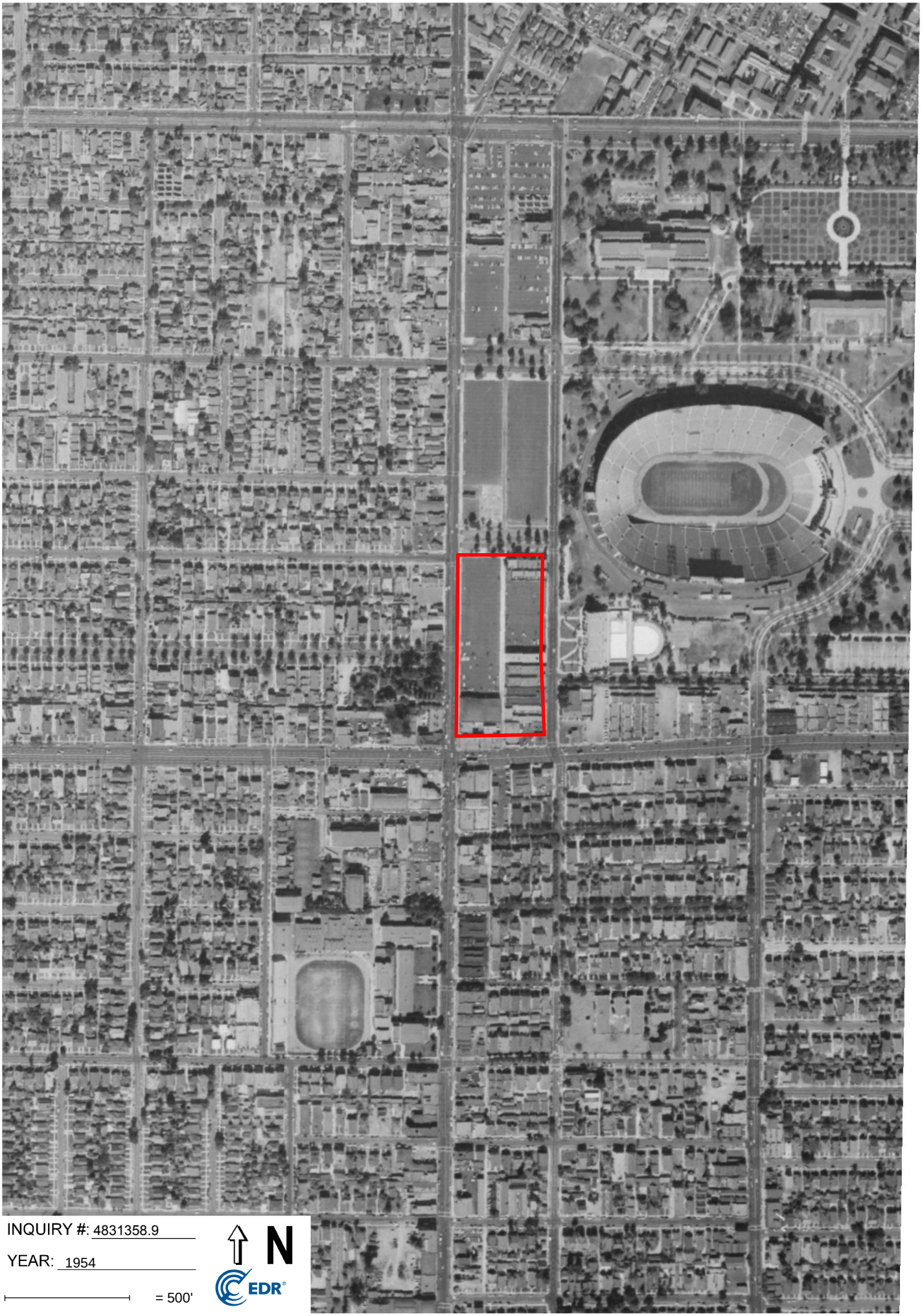
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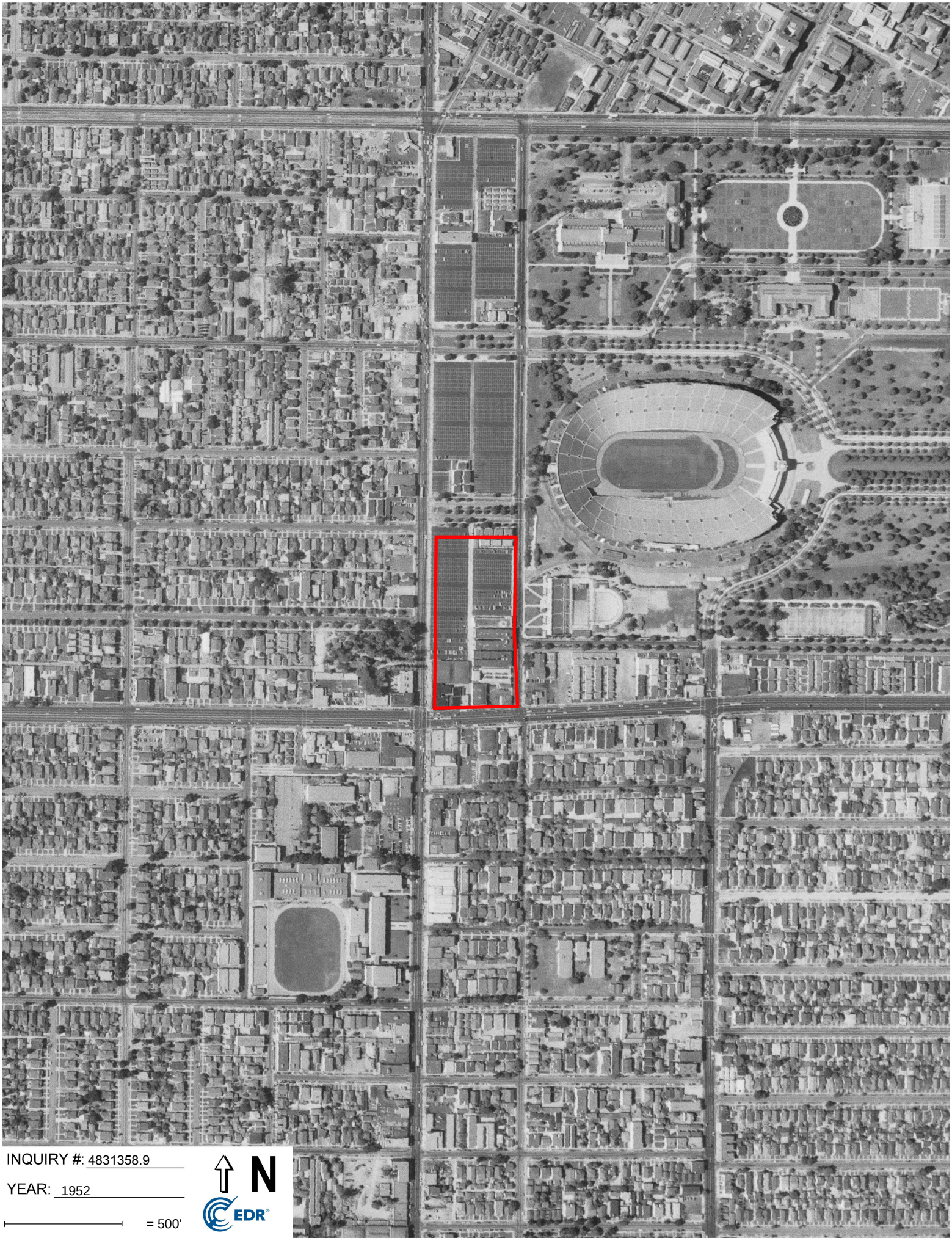
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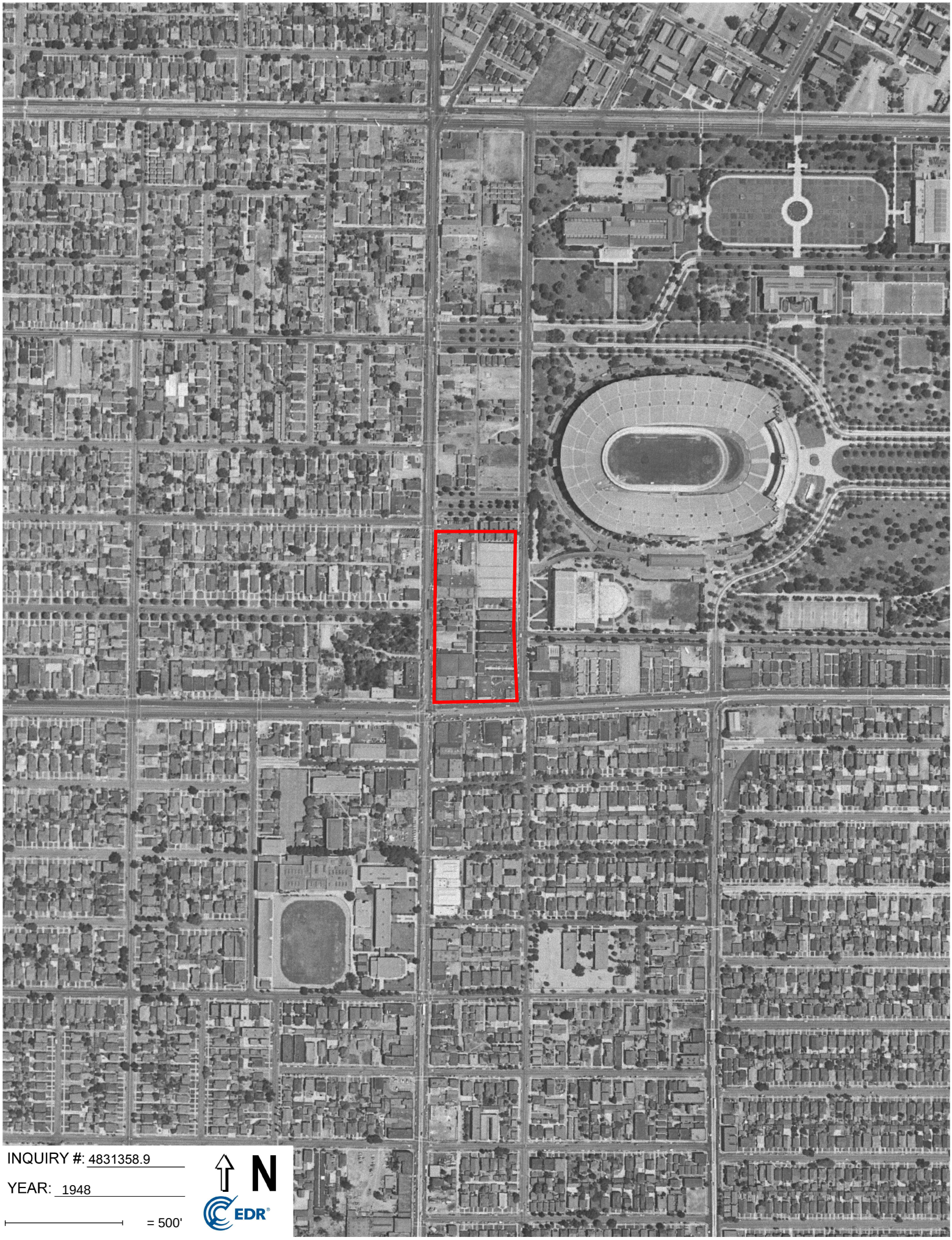
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EDR



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EDR



INQUIRY #: 4831358.9

YEAR: 1938

= 500'

N

EDR



INQUIRY #: 4831358.9

YEAR: 1928

= 500'

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EDR

USC/Parking Lots 1 and 1A

S Vermont Avenue and Martin Luther King Blvd

Los Angeles, CA 90037

Inquiry Number: 4831358.3

January 18, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/18/17

Site Name:

USC/Parking Lots 1 and 1A
S Vermont Avenue and Martin
Los Angeles, CA 90037
EDR Inquiry # 4831358.3

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Laura Tanaka

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Certified Sanborn Results:

Certification # 5E1D-452F-9AC1

PO # 17-42-106-01

Project 17-42-106-01

Maps Provided:

1970	1950
1968	1922
1966	1907
1960	
1959	
1958	
1957	
1954	

Sanborn® Library search results

Certification #: 5E1D-452F-9AC1

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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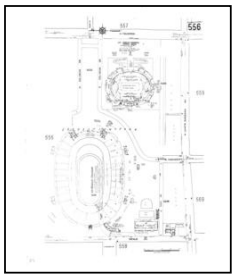
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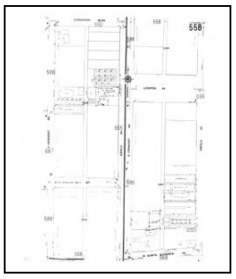
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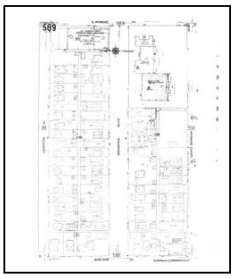
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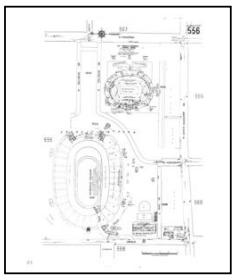
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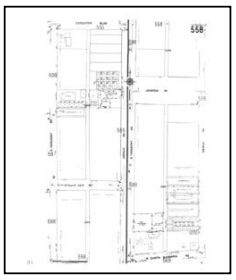

Volume 5, Sheet 556
1970


Volume 5, Sheet 558
1970

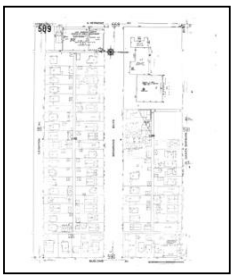

Volume 5, Sheet 589
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1968 Source Sheets

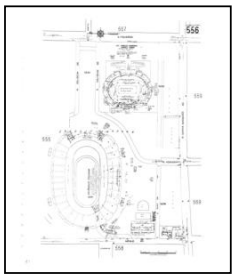

Volume 5, Sheet 556
1968

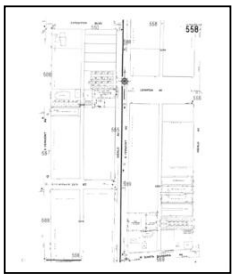

Volume 5, Sheet 558
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Volume 5, Sheet 569
1968


Volume 5, Sheet 589
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1966 Source Sheets

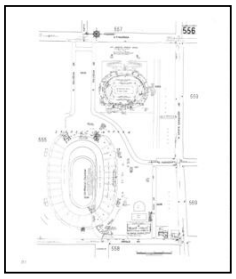

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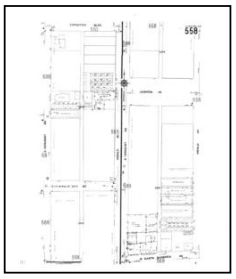

Volume 5, Sheet 558
1966


Volume 5, Sheet 589
1966


Volume 5, Sheet 569
1966

1960 Source Sheets


Volume 5, Sheet 556
1960


Volume 5, Sheet 558
1960

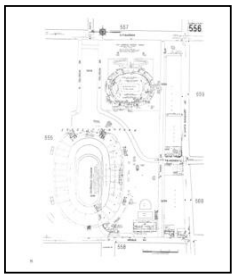

Volume 5, Sheet 569
1960

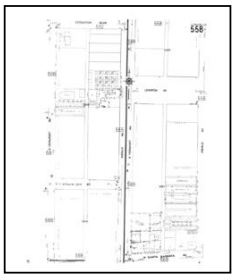

Volume 5, Sheet 589
1960

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1959 Source Sheets

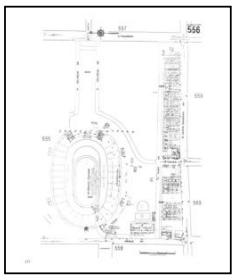

Volume 5, Sheet 556
1959

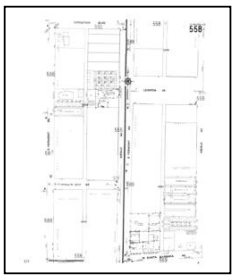

Volume 5, Sheet 558
1959


Volume 5, Sheet 569
1959

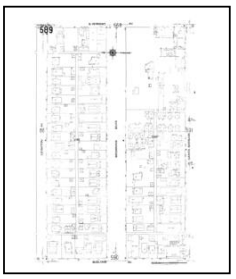

Volume 5, Sheet 589
1959

1958 Source Sheets

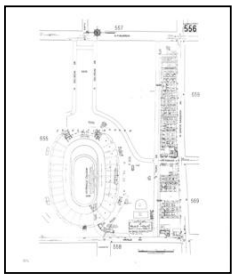

Volume 5, Sheet 556
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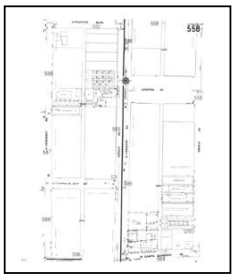

Volume 5, Sheet 558
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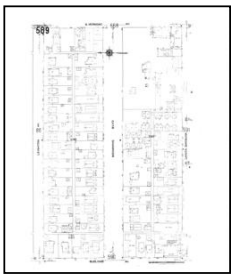

Volume 5, Sheet 569
1958


Volume 5, Sheet 589
1958

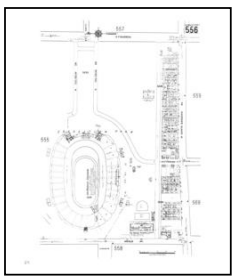
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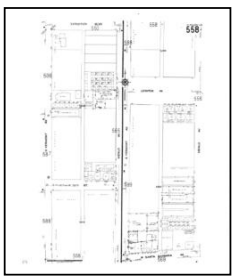

Volume 5, Sheet 556
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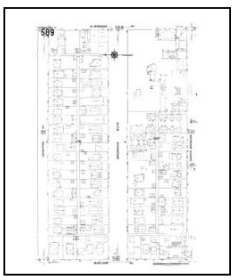

Volume 5, Sheet 558
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Volume 5, Sheet 589
1957

1954 Source Sheets


Volume 5, Sheet 556
1954


Volume 5, Sheet 558
1954

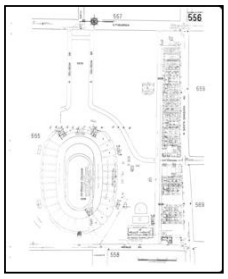

Volume 5, Sheet 589
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Volume 5, Sheet 569
1954

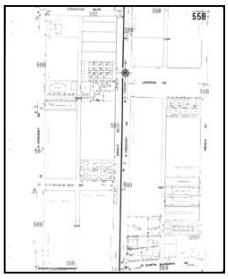
Sanborn Sheet Key

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1954 Source Sheets



Volume 5, Sheet 556
1954



Volume 5, Sheet 558
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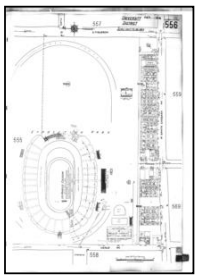


Volume 5, Sheet 569
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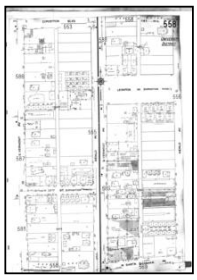


Volume 5, Sheet 589
1954

1950 Source Sheets



Volume 5, Sheet 556
1950

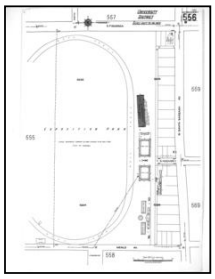


Volume 5, Sheet 558
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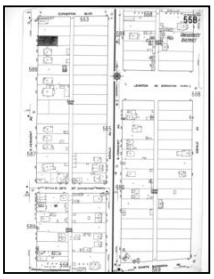


Volume 5, Sheet 589
1950

1922 Source Sheets



Volume 5, Sheet 556
1922



Volume 5, Sheet 558
1922

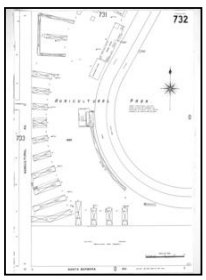


Volume 5, Sheet 569
1922

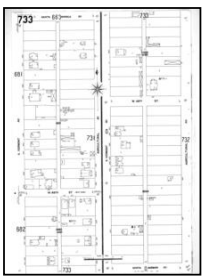


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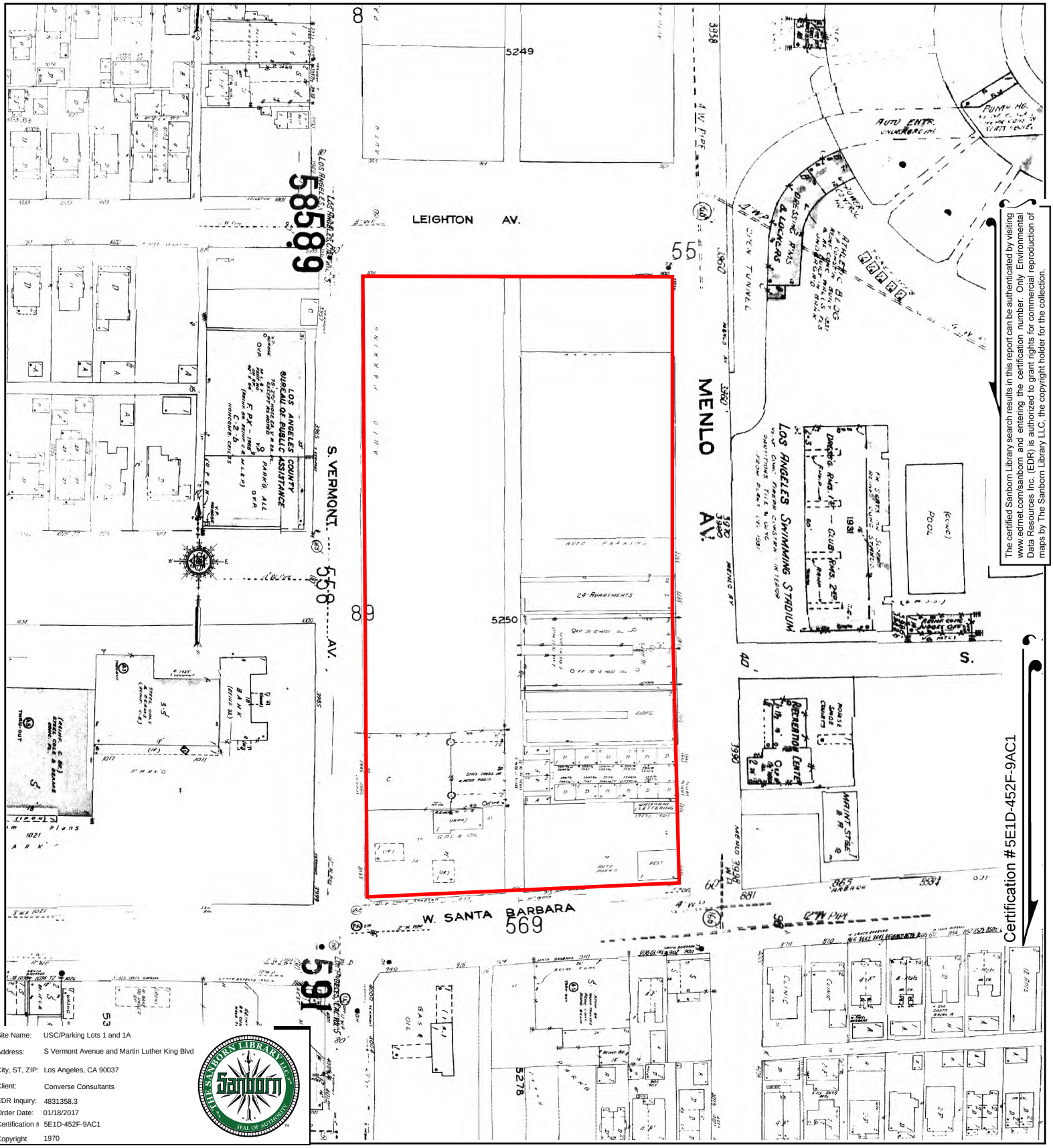
1907 Source Sheets



Volume 6, Sheet 732
1907



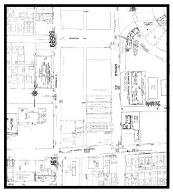
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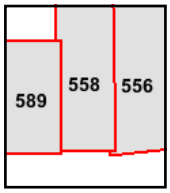


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Address: S Vermont Avenue and Martin Luther King Blvd
City, ST, ZIP: Los Angeles, CA 90037
Client: Converse Consultants
EDR Inquiry: 4831358.3
Order Date: 01/18/2017
Certification #: 5E1D-452F-9AC1
Copyright: 1970

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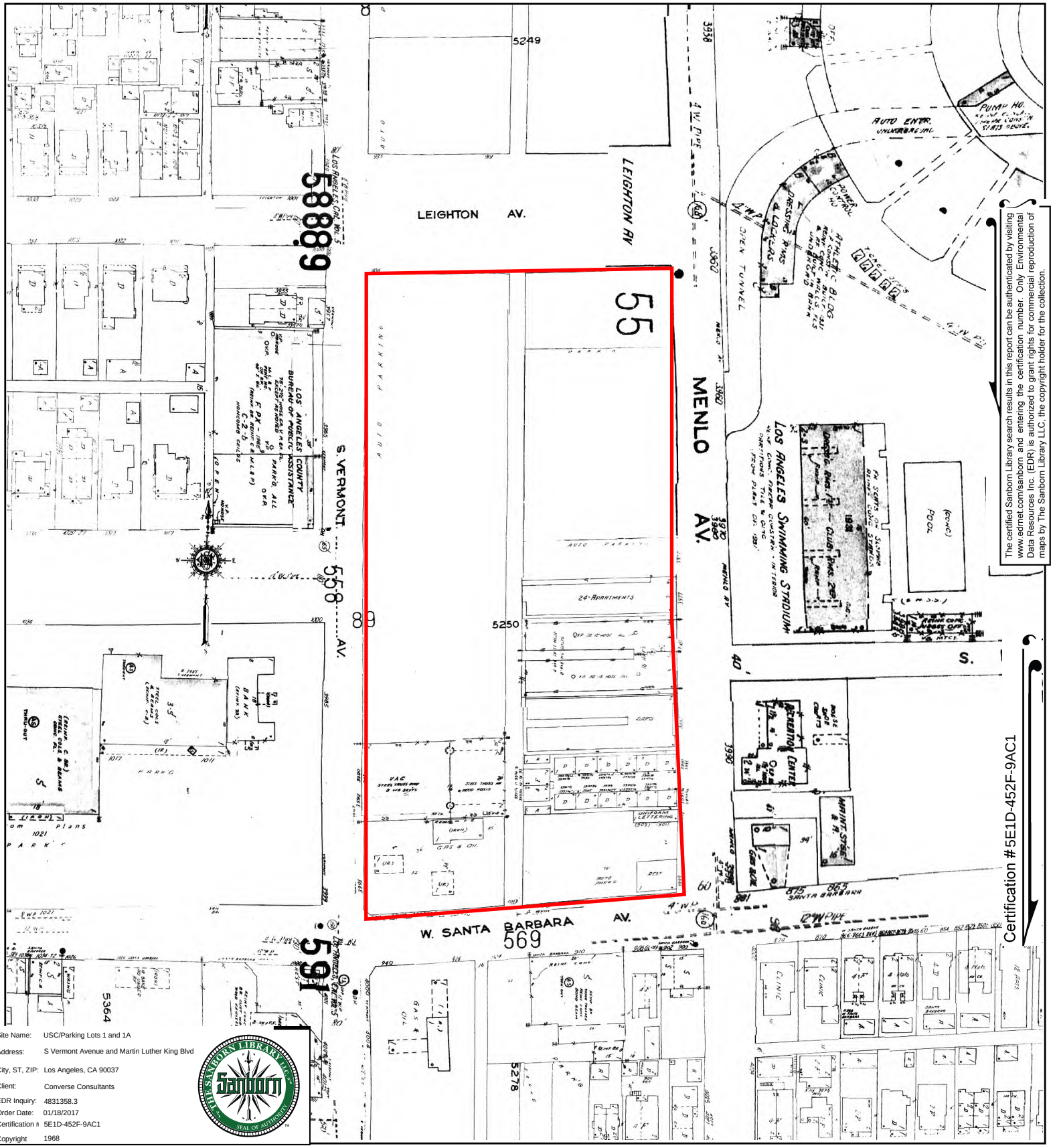
Volume 5, Sheet 589
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Volume 5, Sheet 556

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Certified Sanborn® Map

1968



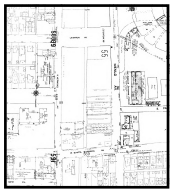
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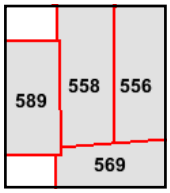
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Copyright	1968

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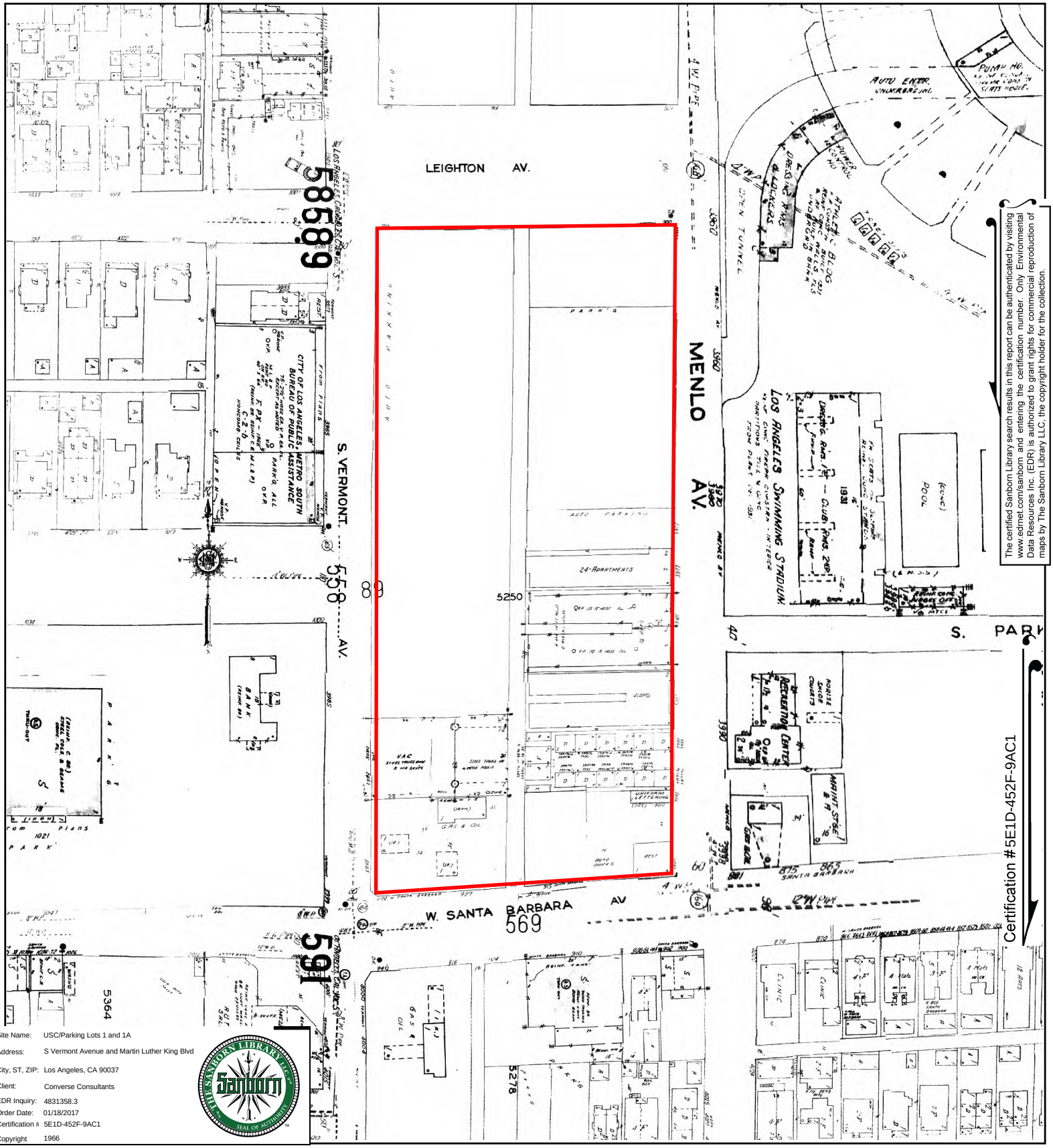
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Volume 5, Sheet 558
Volume 5, Sheet 556

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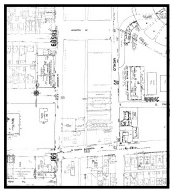


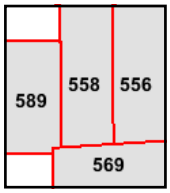
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Copyright	1966

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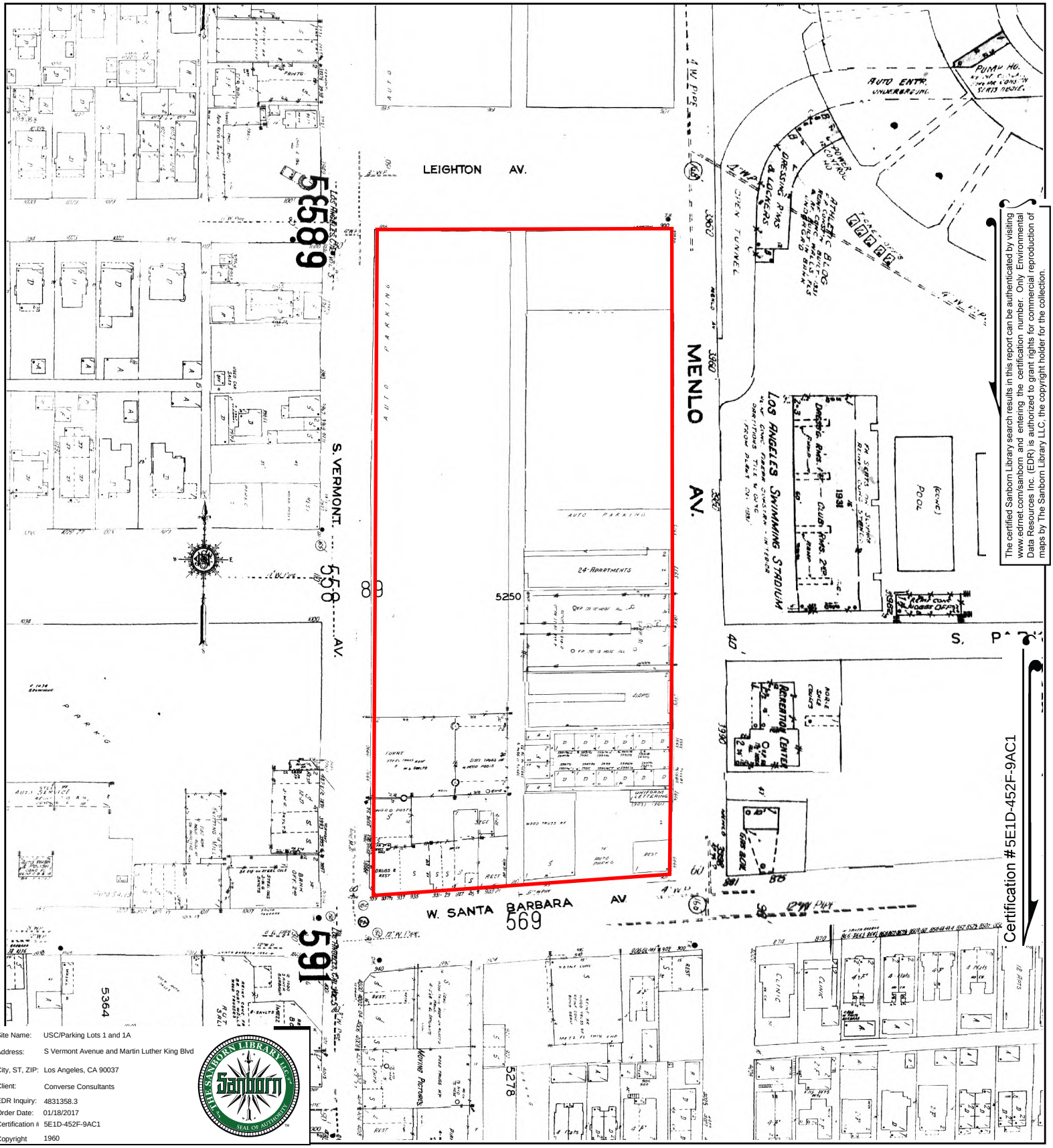




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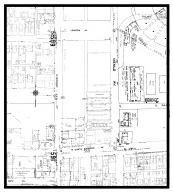


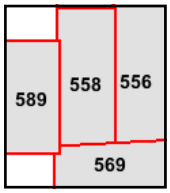
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Certification #:	5E1D-452F-9AC1
Copyright	1960

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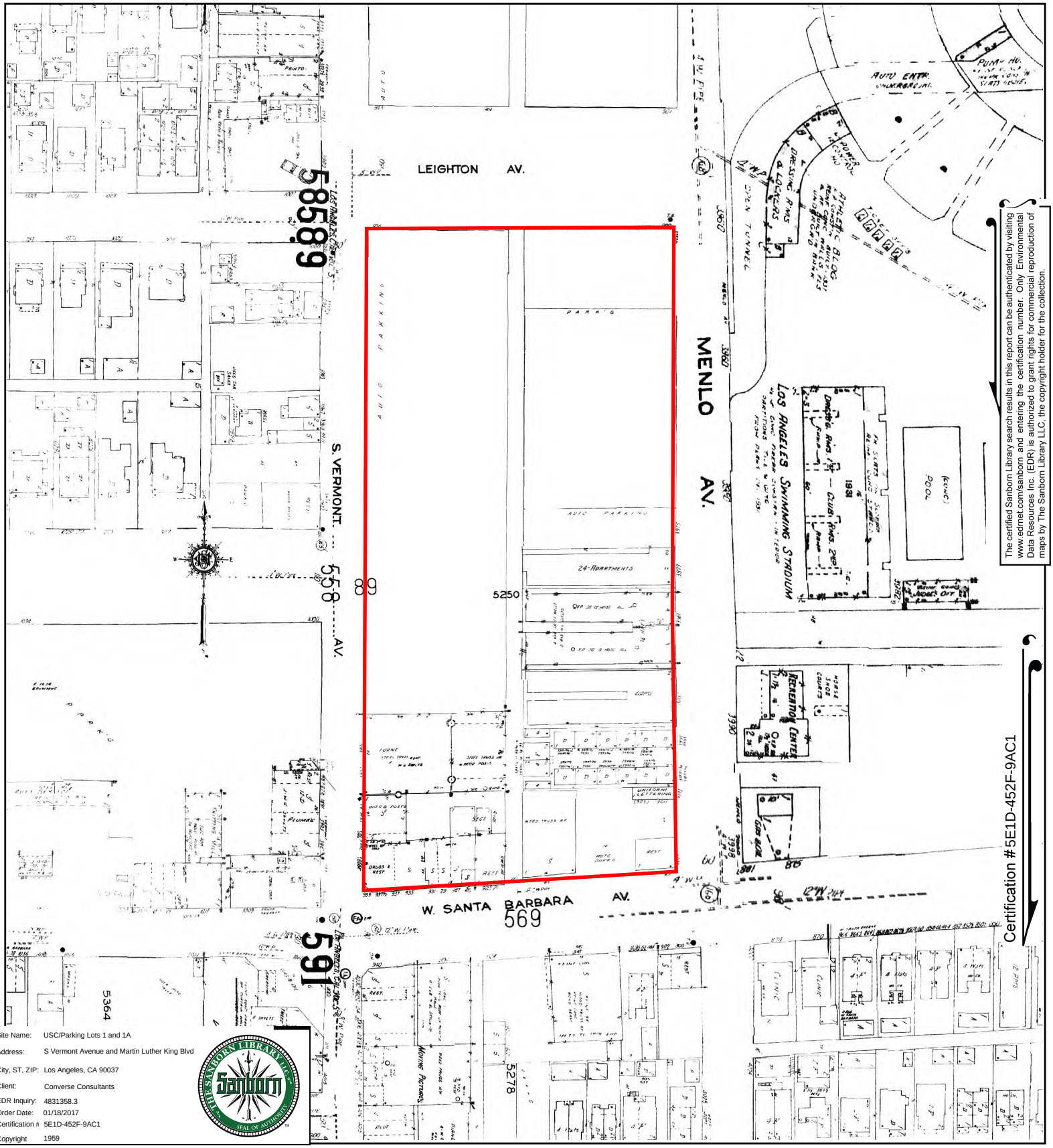




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Volume 5, Sheet 556

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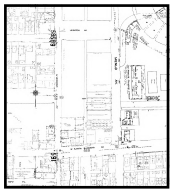


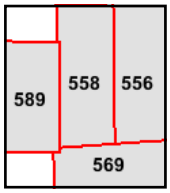
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EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1959

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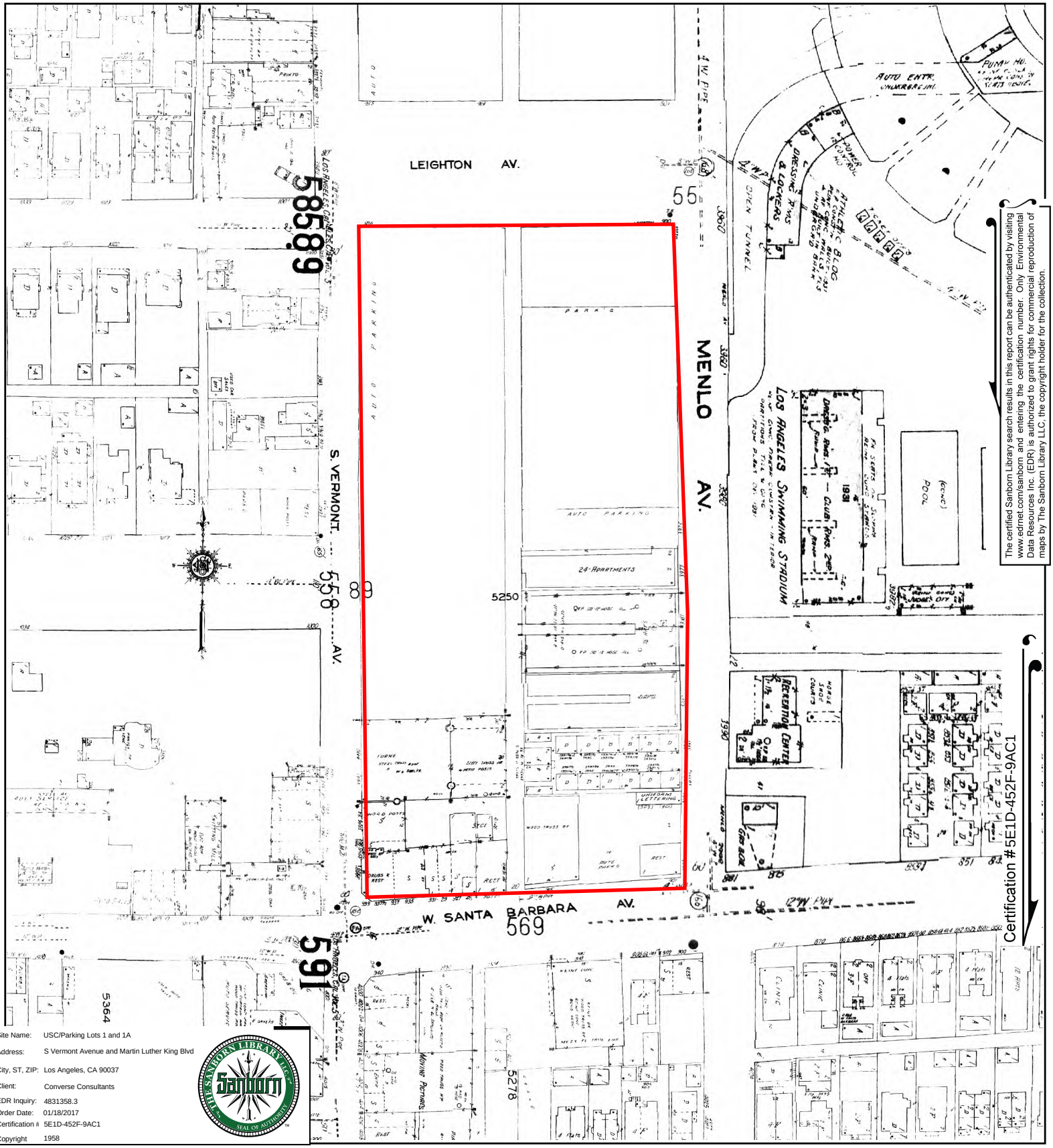




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Volume 5, Sheet 556

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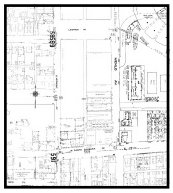


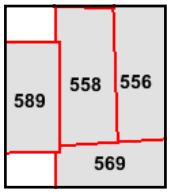
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Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1958

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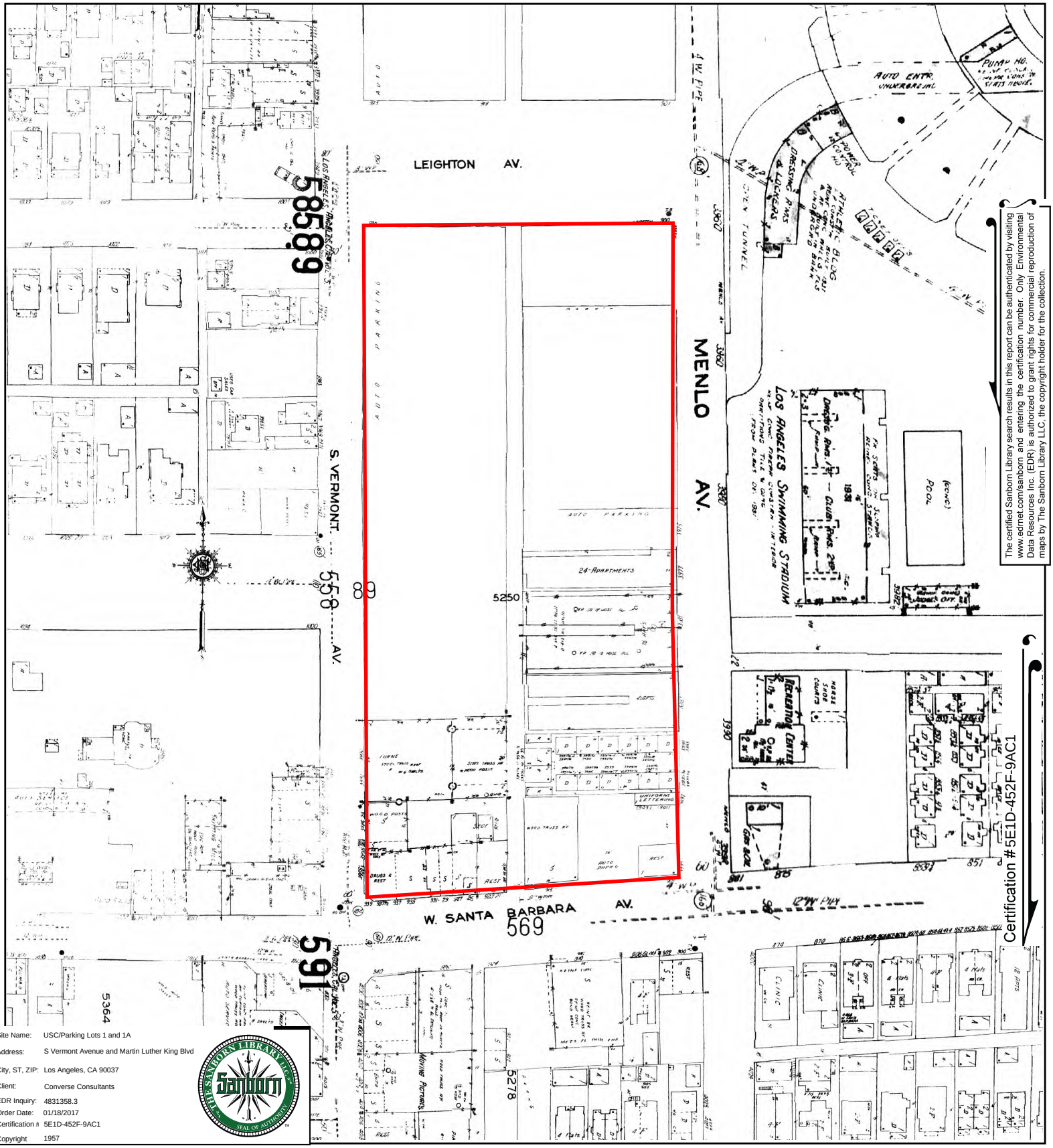




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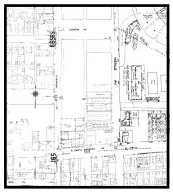
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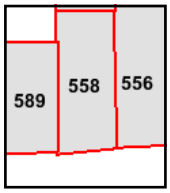


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Client:	Converse Consultants
EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1957

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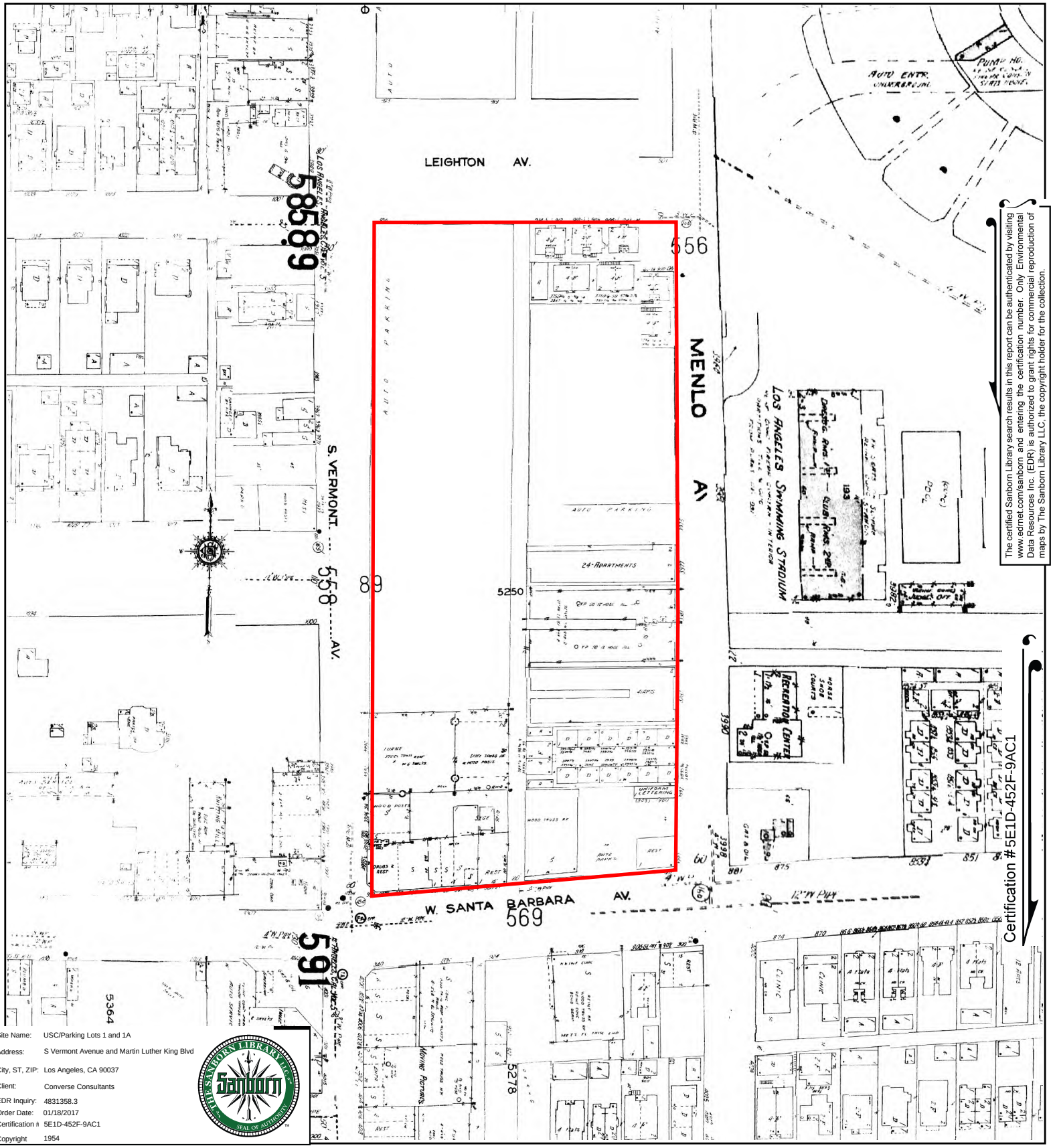




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Volume 5, Sheet 556

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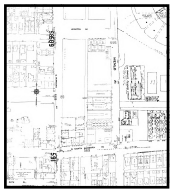


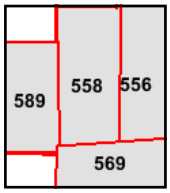
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Certification #5E1D-452F-9AC1

Site Name:	USC/Parking Lots 1 and 1A
Address:	S Vermont Avenue and Martin Luther King Blvd
City, ST, ZIP:	Los Angeles, CA 90037
Client:	Converse Consultants
EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1954

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Outlined areas indicate map sheets within the collection.

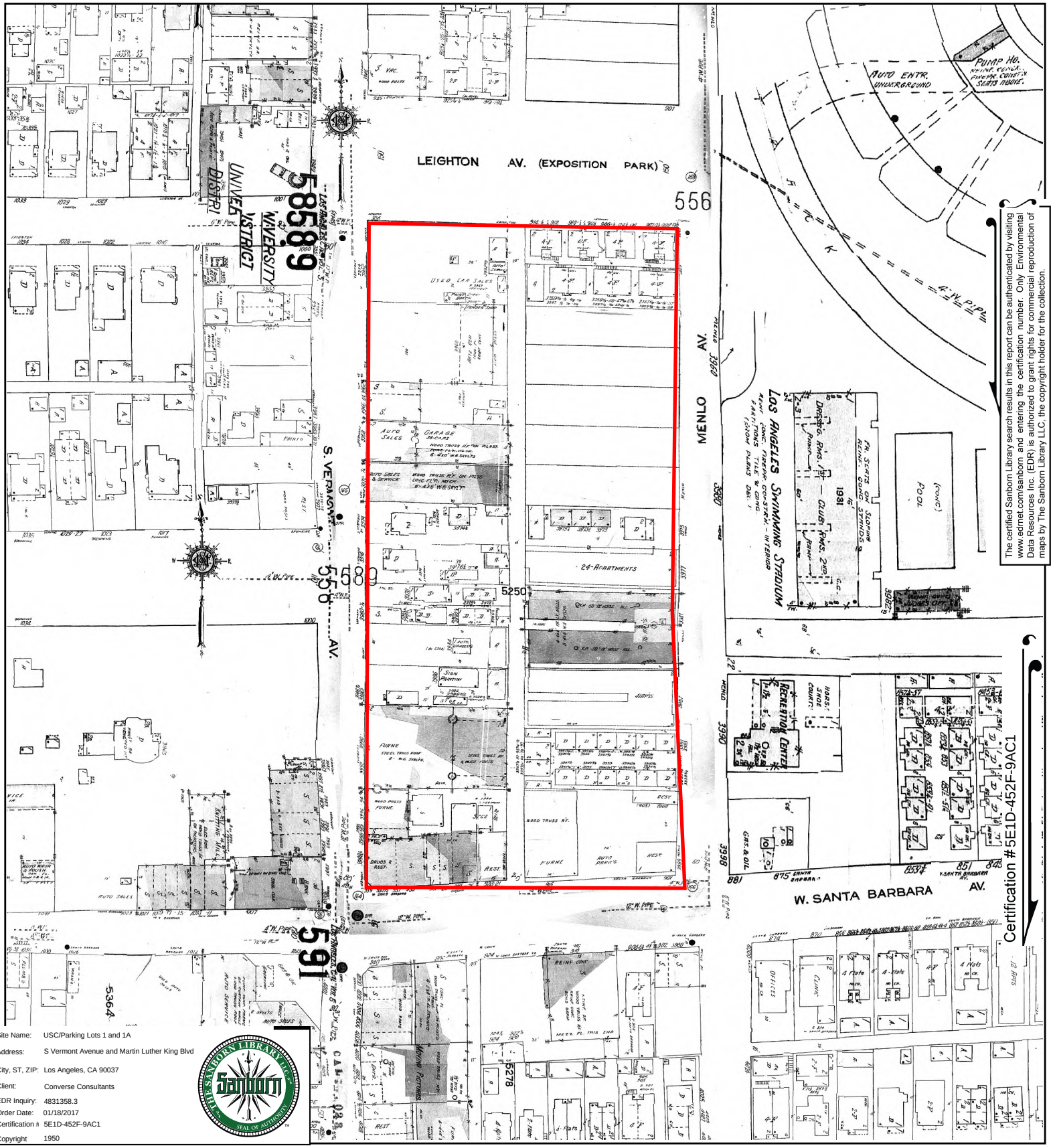




Volume 5, Sheet 589
Volume 5, Sheet 569
Volume 5, Sheet 558
Volume 5, Sheet 556
Volume 5, Sheet 569
Volume 5, Sheet 589
Volume 5, Sheet 558
Volume 5, Sheet 556

0 Feet 150 300 600

N

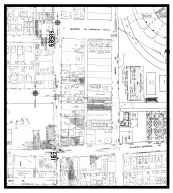


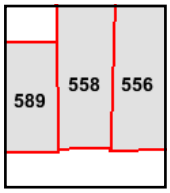
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Certification #5E1D-452F-9AC1

Site Name:	USC/Parking Lots 1 and 1A
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Client:	Converse Consultants
EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1950

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Volume 5, Sheet 589
Volume 5, Sheet 558
Volume 5, Sheet 556

0 Feet 150 300 600

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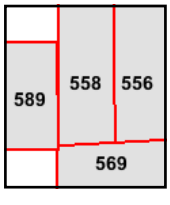


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Site Name:	USC/Parking Lots 1 and 1A
Address:	S Vermont Avenue and Martin Luther King Blvd
City, ST, ZIP:	Los Angeles, CA 90037
Client:	Converse Consultants
EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #:	5E1D-452F-9AC1
Copyright	1922

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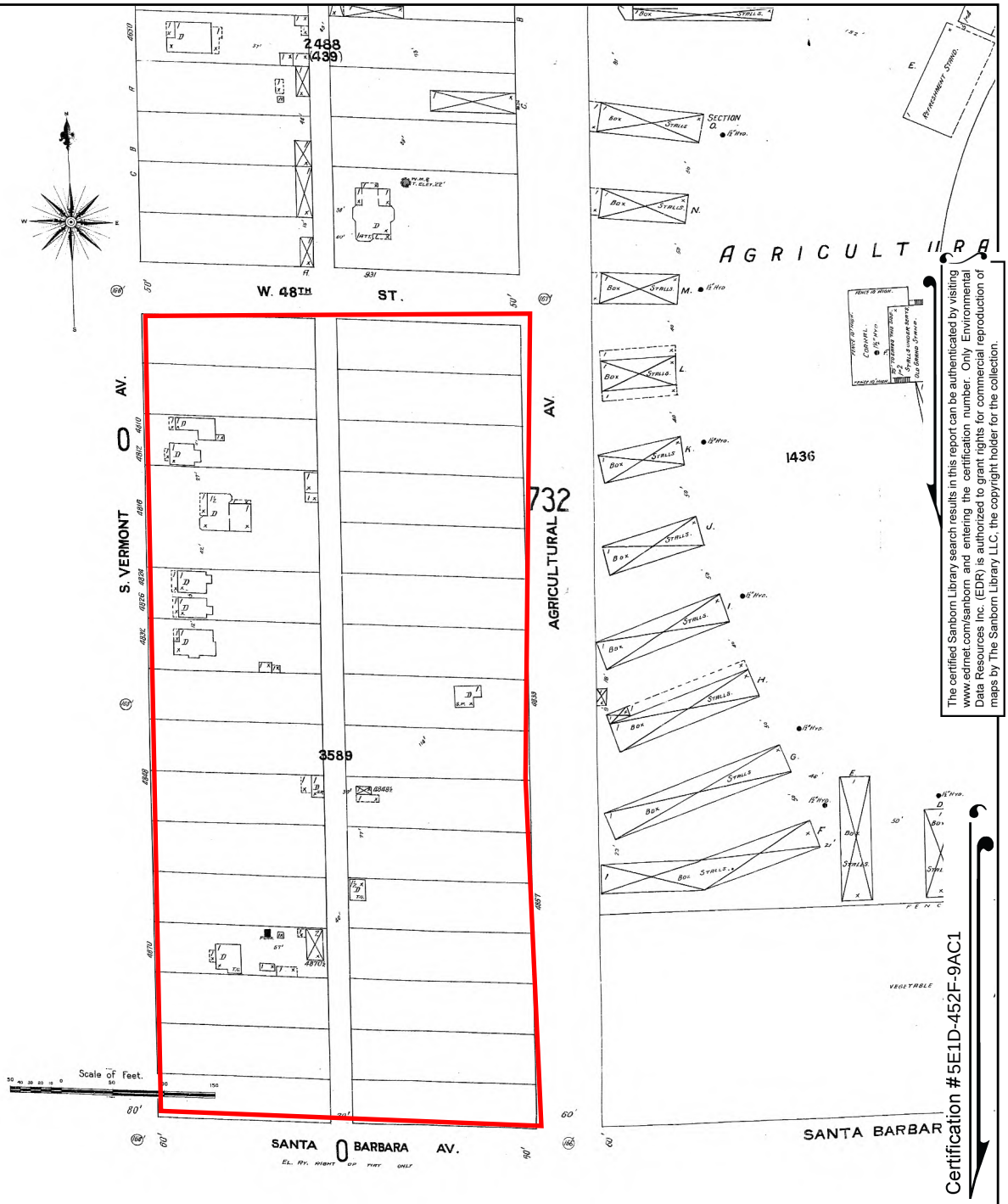




Volume 5, Sheet 589
Volume 5, Sheet 569
Volume 5, Sheet 558
Volume 5, Sheet 556

0 Feet 150 300 600

N



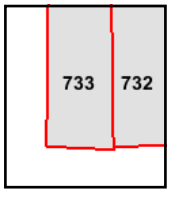
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Certification #5E1D-452F-9AC1

Site Name:	USC/Parking Lots 1 and 1A
Address:	S Vermont Avenue and Martin Luther King Blvd
City, ST, ZIP:	Los Angeles, CA 90037
Client:	Converse Consultants
EDR Inquiry:	4831358.3
Order Date:	01/18/2017
Certification #	5E1D-452F-9AC1
Copyright	1907

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 6, Sheet 733
Volume 6, Sheet 732

0 Feet 150 300 600

N

USC/Parking Lots 1 and 1A

S Vermont Avenue and Martin Luther King Blvd

Los Angeles, CA 90037

Inquiry Number: 4831358.4

January 18, 2017

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

01/18/17

Site Name:

USC/Parking Lots 1 and 1A
S Vermont Avenue and Martin
Los Angeles, CA 90037
EDR Inquiry # 4831358.4

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Laura Tanaka

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Converse Consultants were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 17-42-106-01
Project: 17-42-106-01

Coordinates:

Latitude:	34.012061 34° 0' 43" North
Longitude:	-118.290807 -118° 17' 27" West
UTM Zone:	Zone 11 North
UTM X Meters:	380809.82
UTM Y Meters:	3764244.37
Elevation:	172.00' above sea level

Maps Provided:

2012	1920
1991	1902
1981	1900
1972	1898
1964, 1966	1896
1952, 1953	1894
1926, 1928	
1921	

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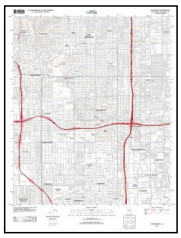
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Hollywood
2012
7.5-minute, 24000



Inglewood
2012
7.5-minute, 24000

1991 Source Sheets



Hollywood
1991
7.5-minute, 24000
Aerial Photo Revised 1978

1981 Source Sheets

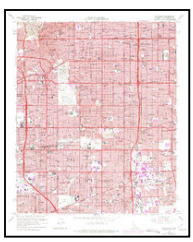


Inglewood
1981
7.5-minute, 24000
Aerial Photo Revised 1978



Hollywood
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1972 Source Sheets



Inglewood
1972
7.5-minute, 24000
Aerial Photo Revised 1972



Hollywood
1972
7.5-minute, 24000
Aerial Photo Revised 1972

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1964, 1966 Source Sheets



Inglewood
1964
7.5-minute, 24000
Aerial Photo Revised 1963



Hollywood
1966
7.5-minute, 24000
Aerial Photo Revised 1964

1952, 1953 Source Sheets



Inglewood
1952
7.5-minute, 24000
Aerial Photo Revised 1947



Hollywood
1953
7.5-minute, 24000
Aerial Photo Revised 1952

1926, 1928 Source Sheets



Hollywood
1926
7.5-minute, 24000



Los Angeles
1928
7.5-minute, 24000

1921 Source Sheets

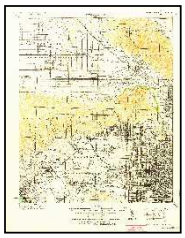


Santa Monica
1921
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1920 Source Sheets



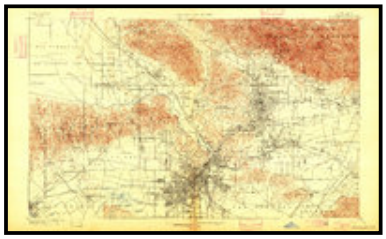
SANTA MONICA
1920
15-minute, 62500

1902 Source Sheets



Santa Monica
1902
15-minute, 62500

1900 Source Sheets



Los Angeles
1900
15-minute, 62500

1898 Source Sheets



Santa Monica
1898
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1896 Source Sheets



Redondo
1896
15-minute, 62500



Santa Monica
1896
15-minute, 62500

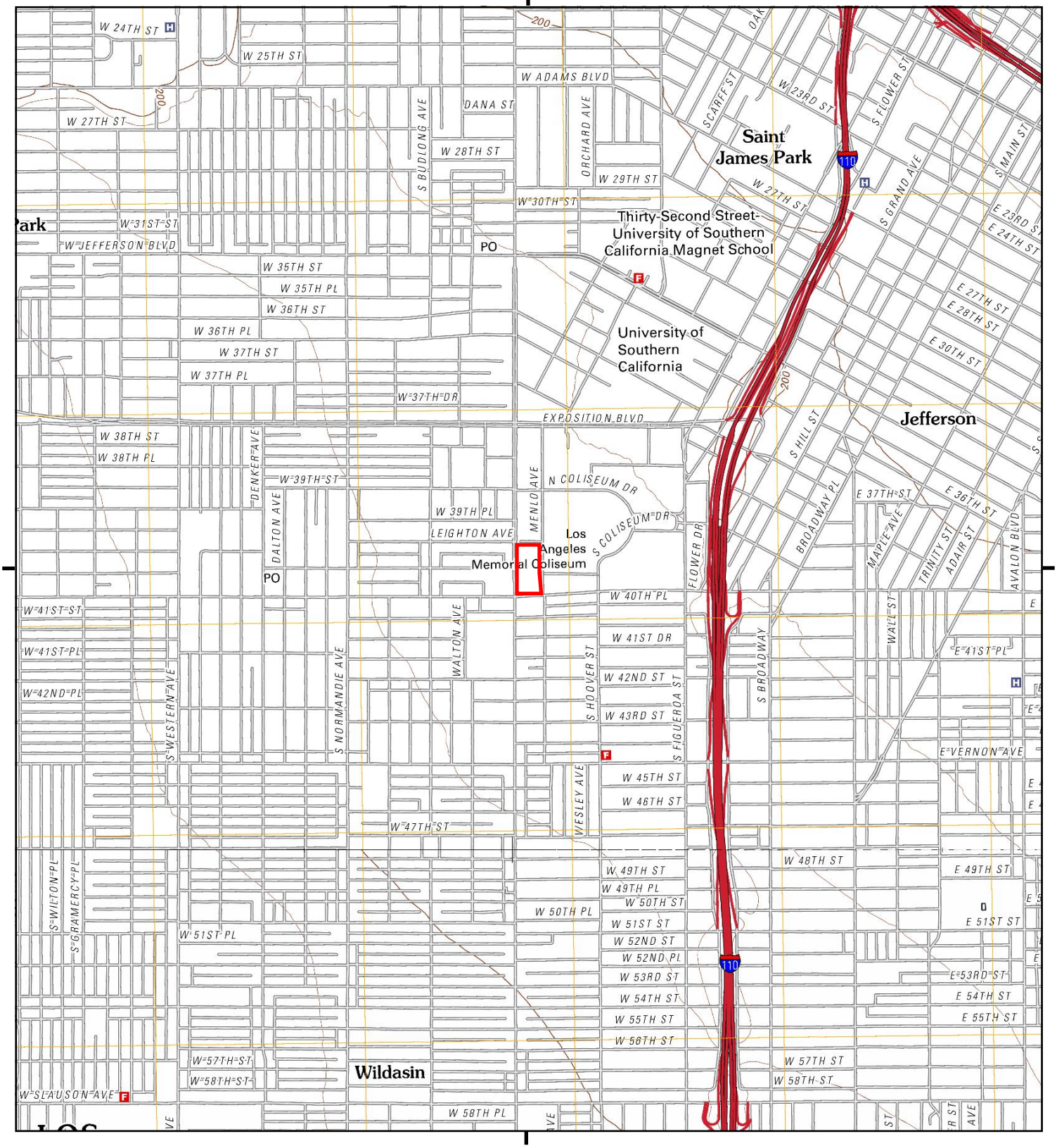
1894 Source Sheets



Los Angeles
1894
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

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W E
SW S SE

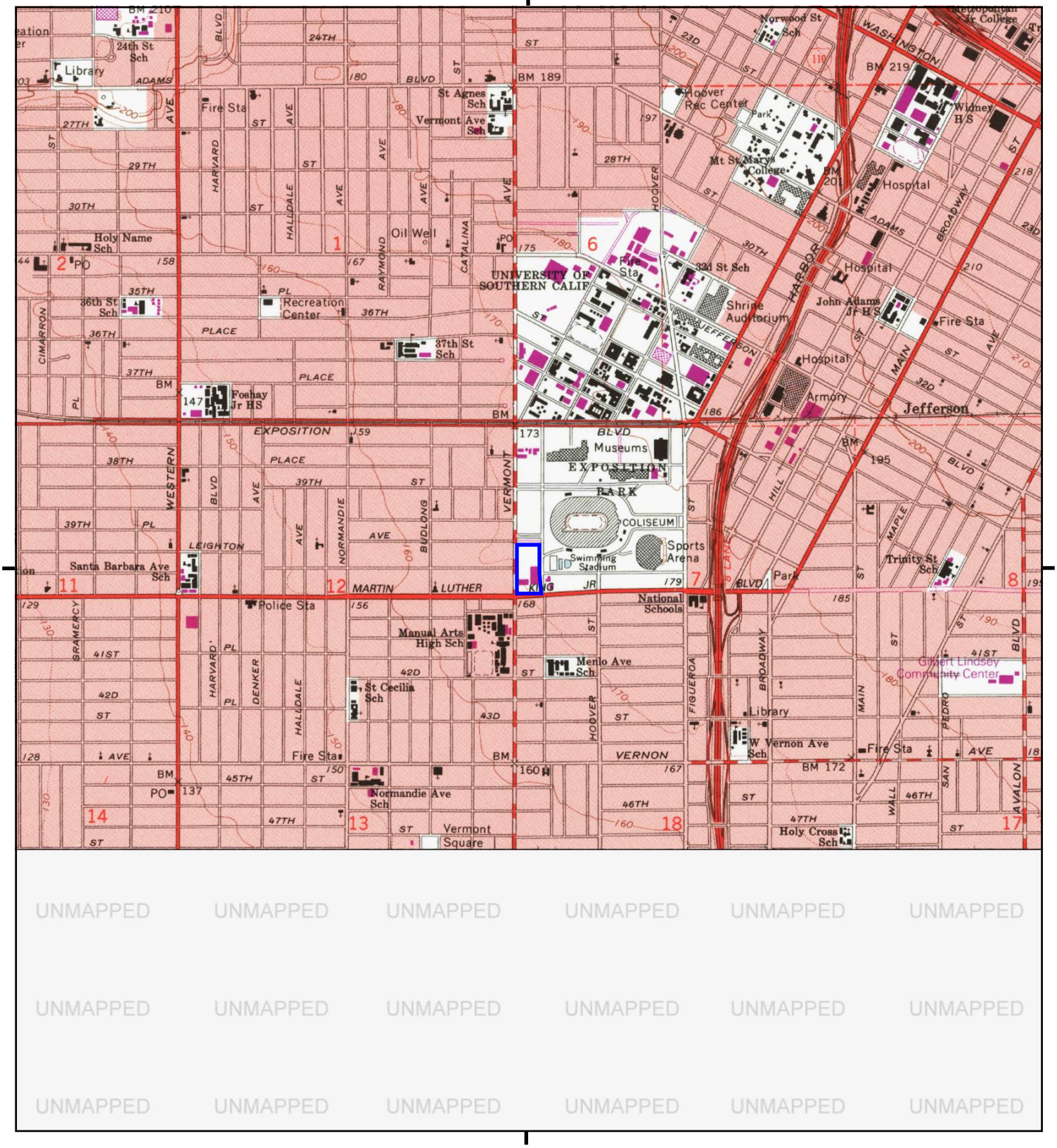
TP, Hollywood, 2012, 7.5-minute
S, Inglewood, 2012, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1991



This report includes information from the following map sheet(s).

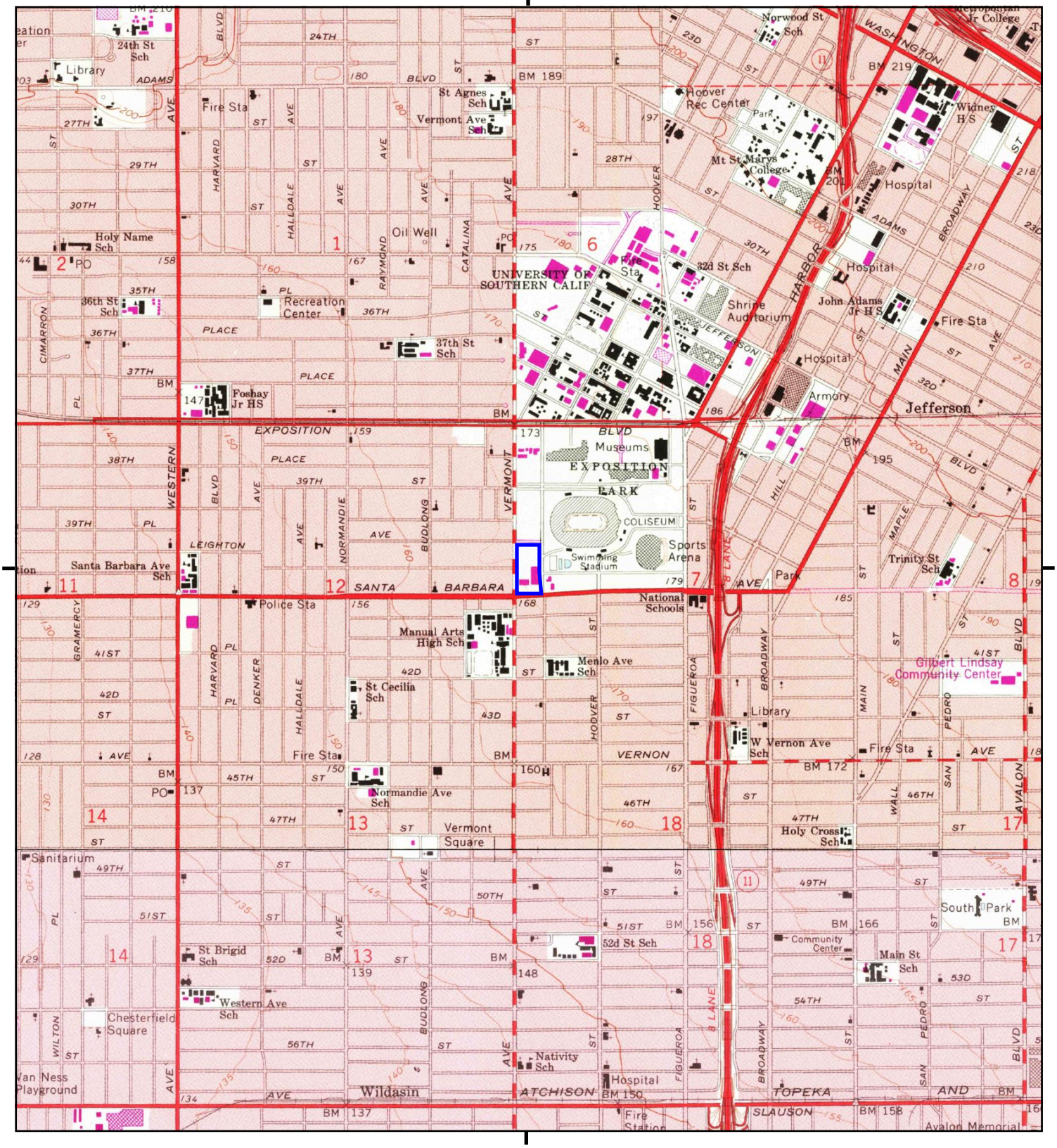
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Hollywood, 1991, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

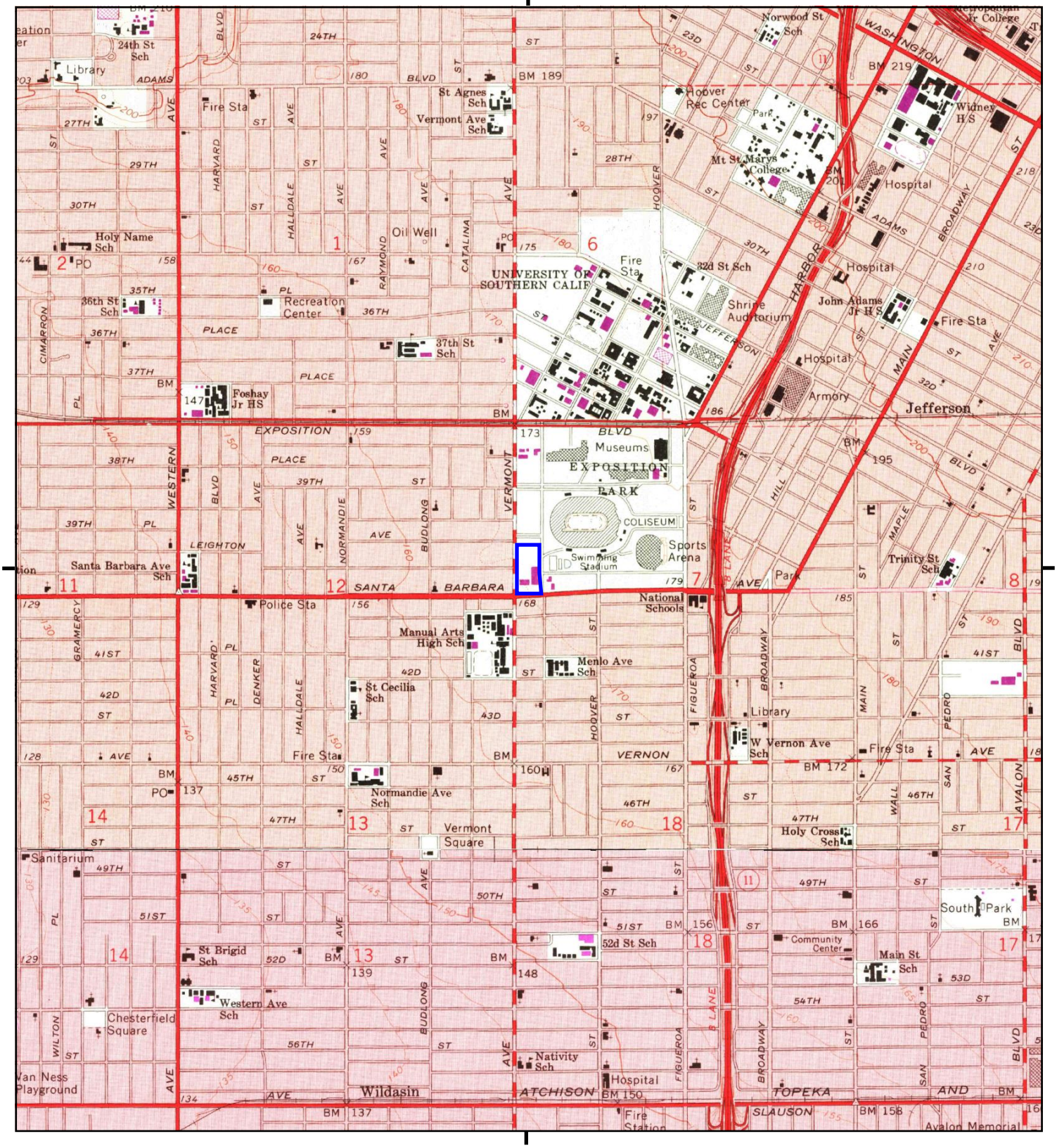
TP, Hollywood, 1981, 7.5-minute
S, Inglewood, 1981, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1972



This report includes information from the following map sheet(s).

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W E
SW S SE

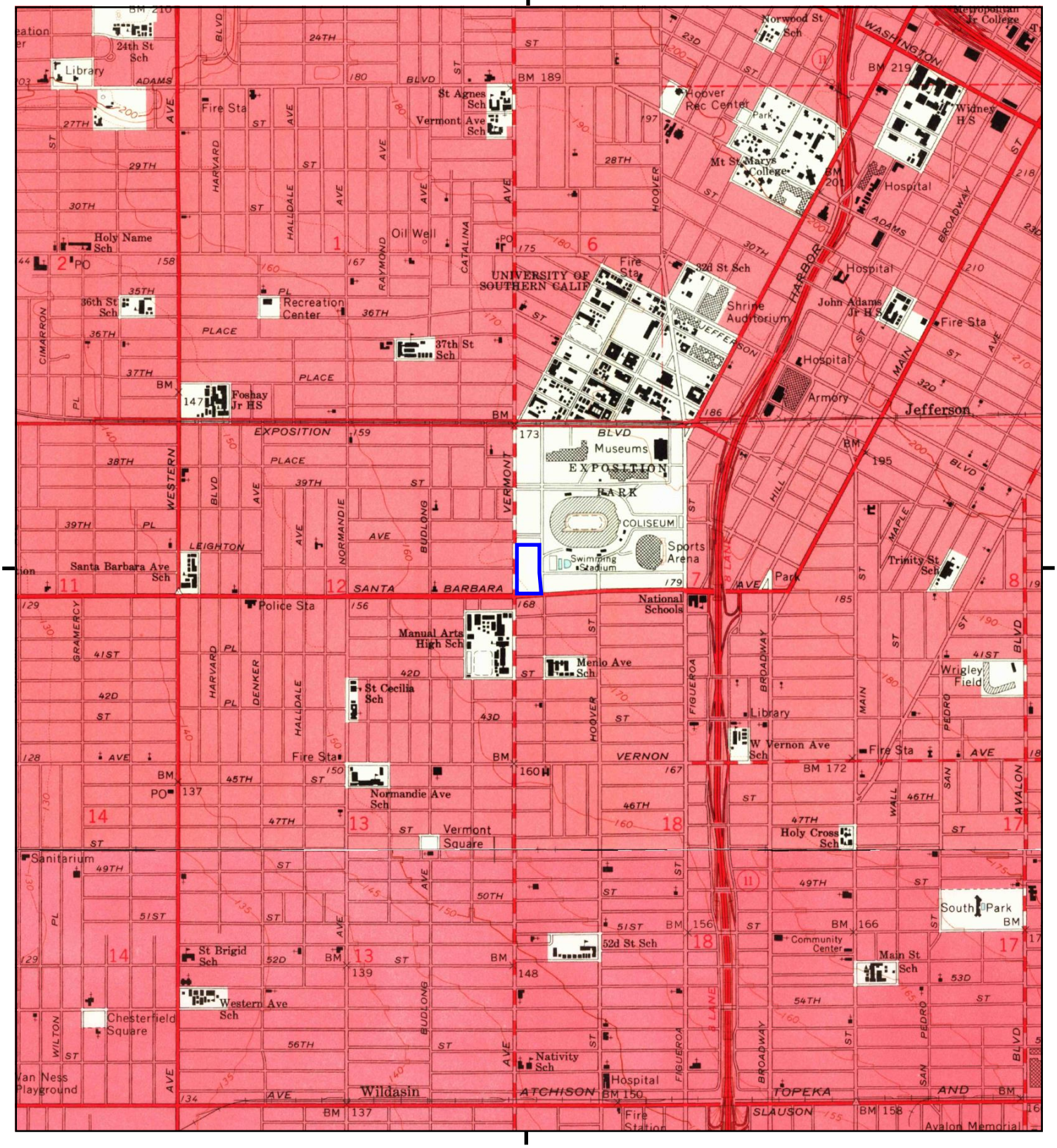
TP, Hollywood, 1972, 7.5-minute
S, Inglewood, 1972, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1964, 1966



This report includes information from the following map sheet(s).

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W E
SW S SE

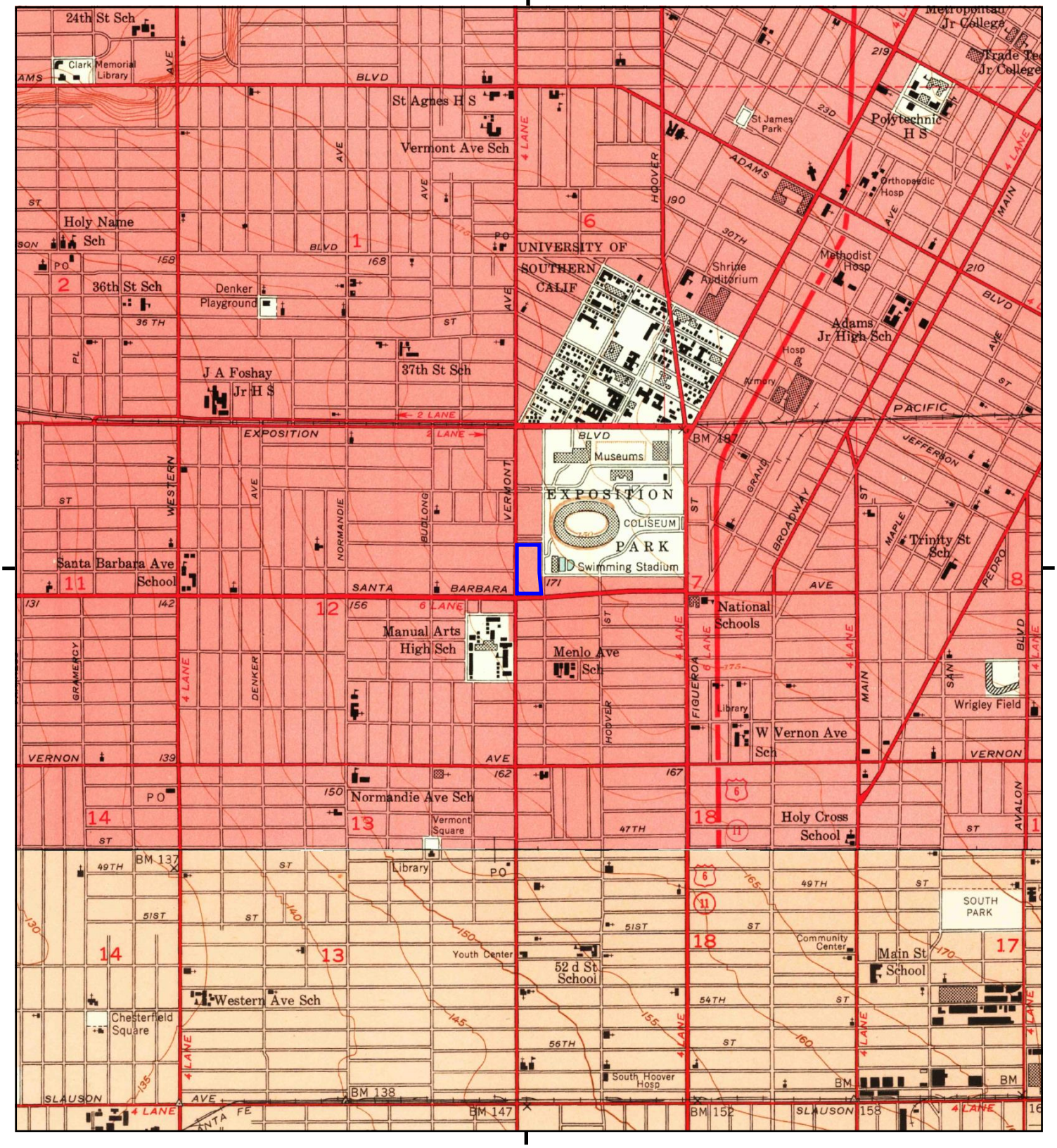
TP, Hollywood, 1966, 7.5-minute
S, Inglewood, 1964, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1952, 1953



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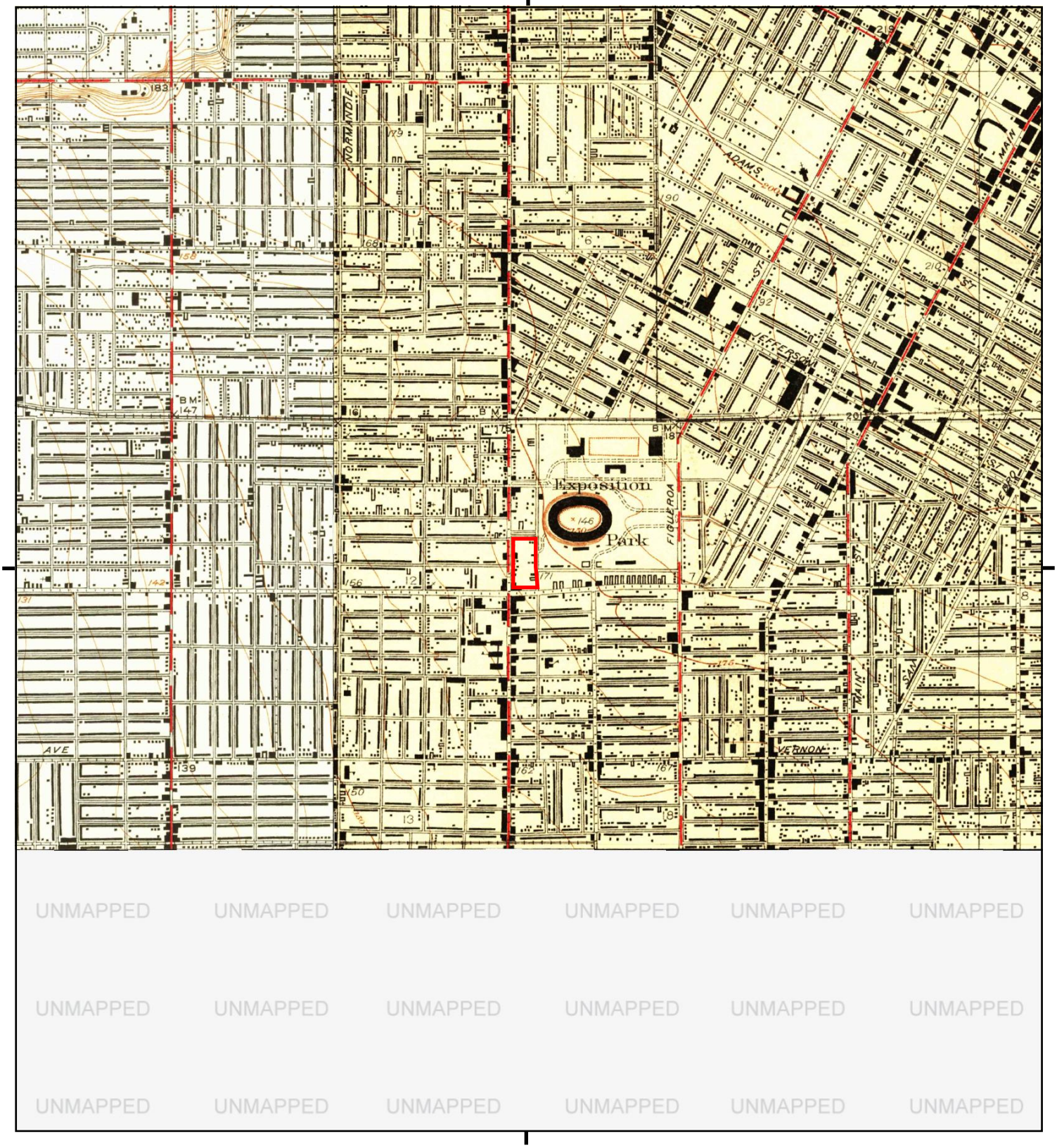
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Hollywood, 1953, 7.5-minute
S, Inglewood, 1952, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N



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NW N NE
W E
SW S SE

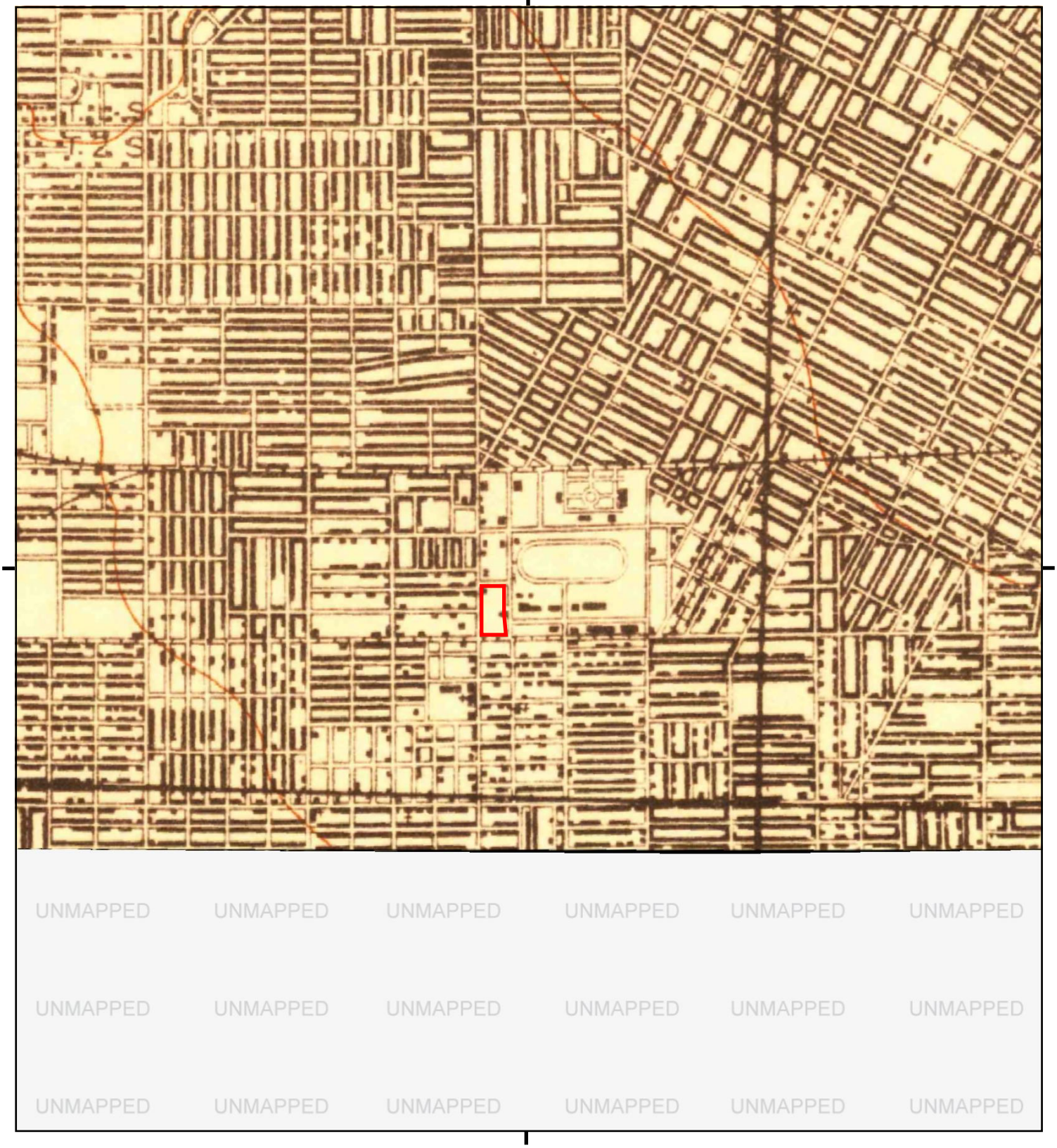
TP, Los Angeles, 1928, 7.5-minute
NW, Hollywood, 1926, 7.5-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1921



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W E
SW S SE

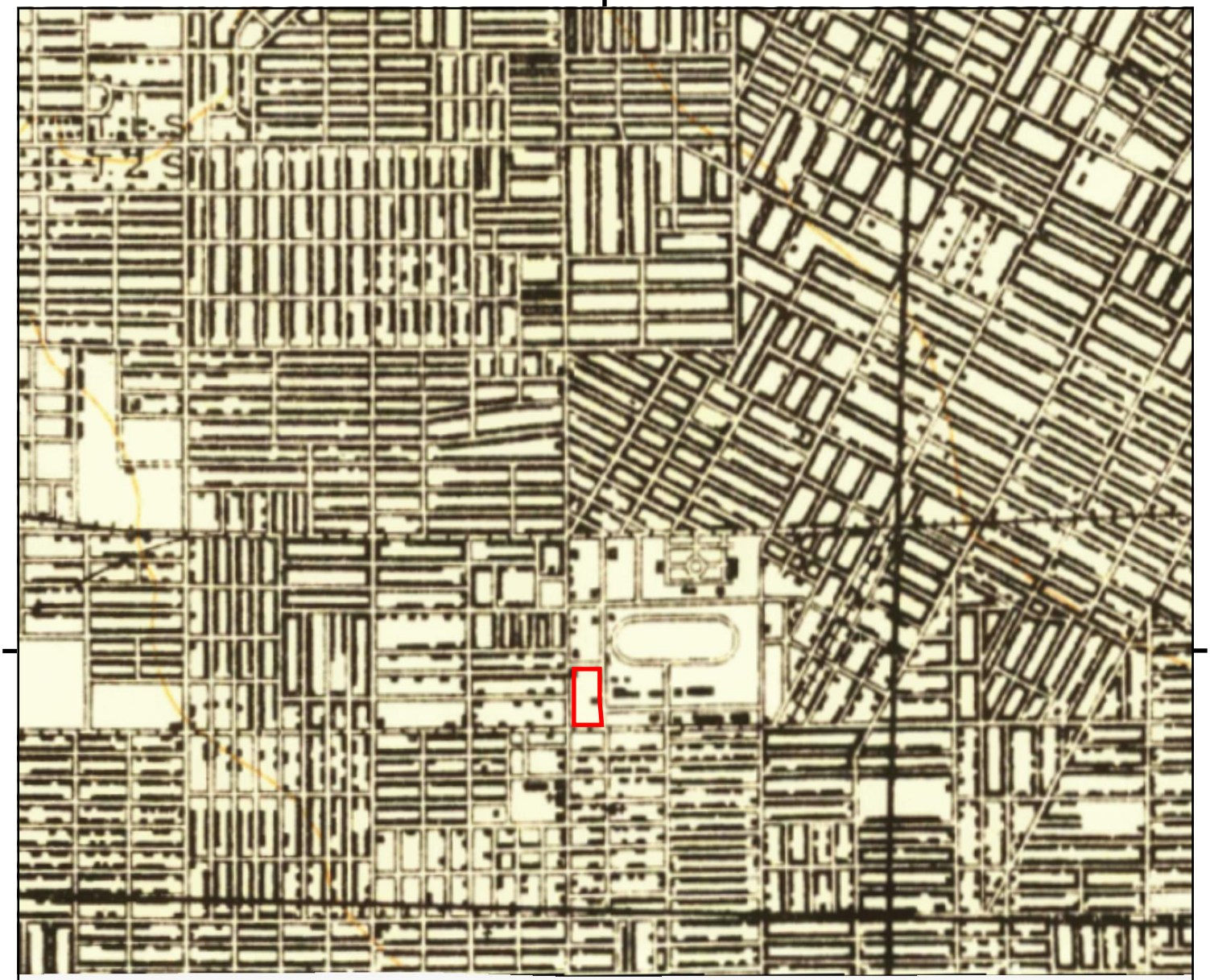
TP, Santa Monica, 1921, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1920



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UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

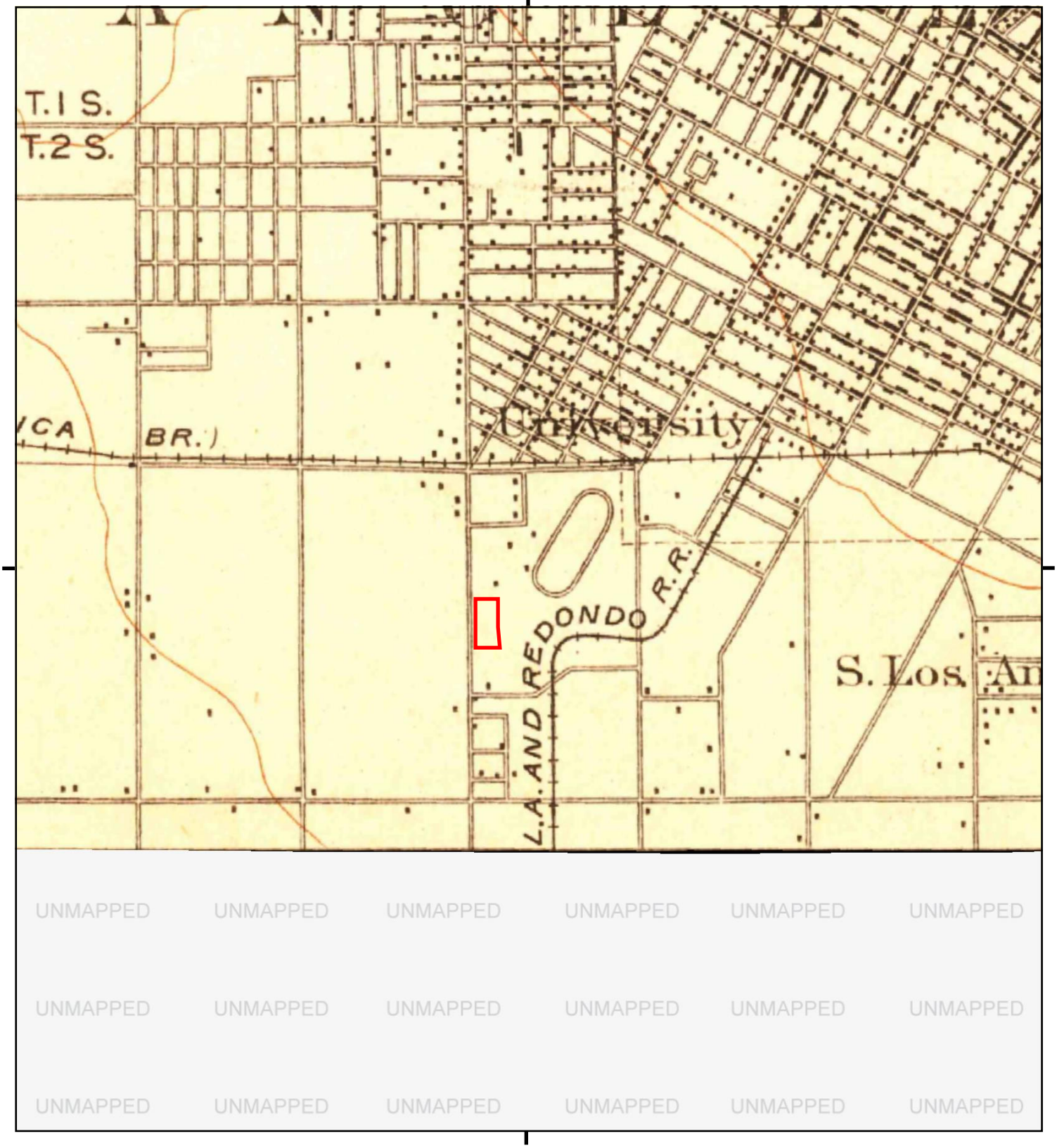
TP, SANTA MONICA, 1920, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1902



UNMAPPED

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W E
SW S SE

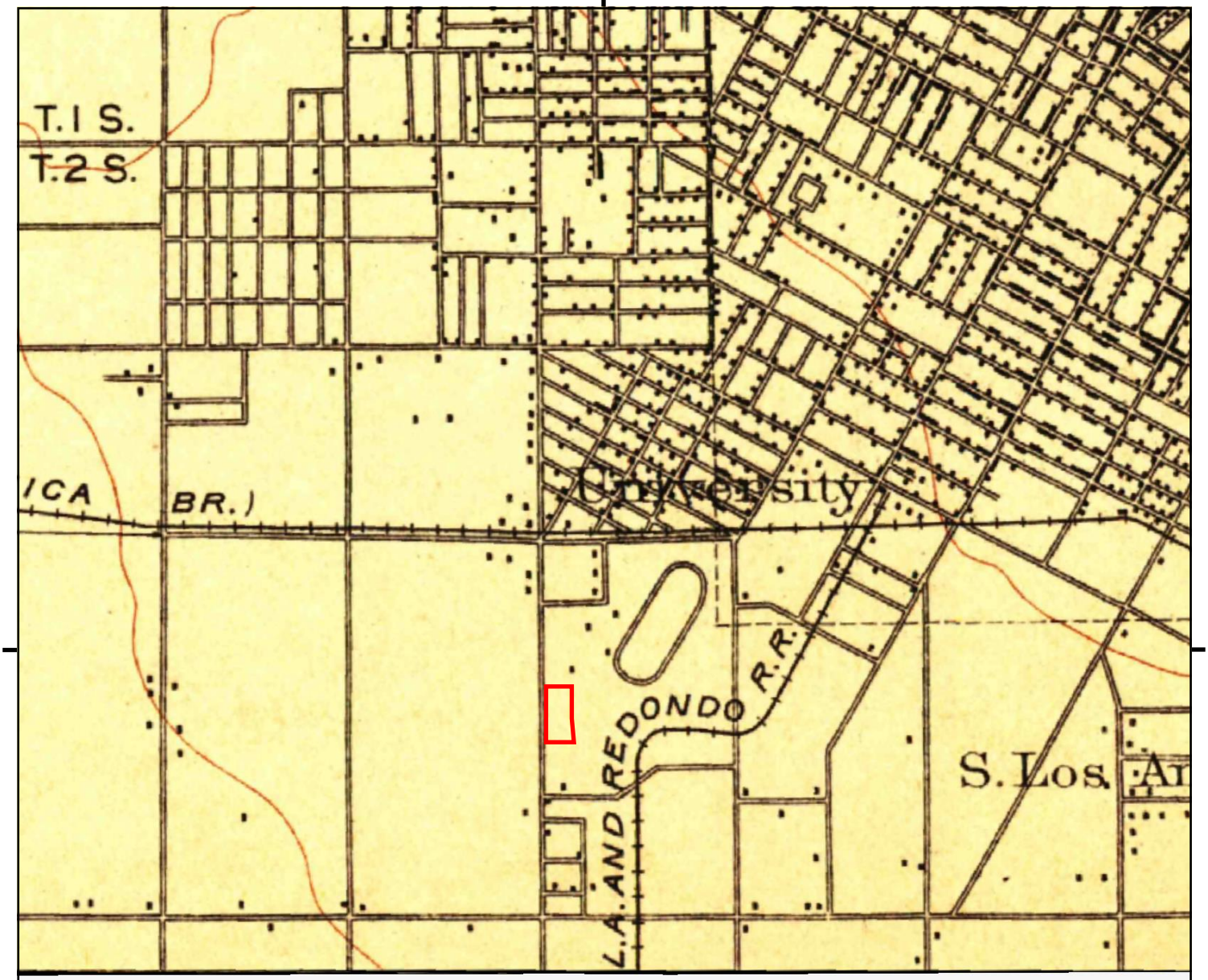
TP, Santa Monica, 1902, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

Historical Topo Map

1900



UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
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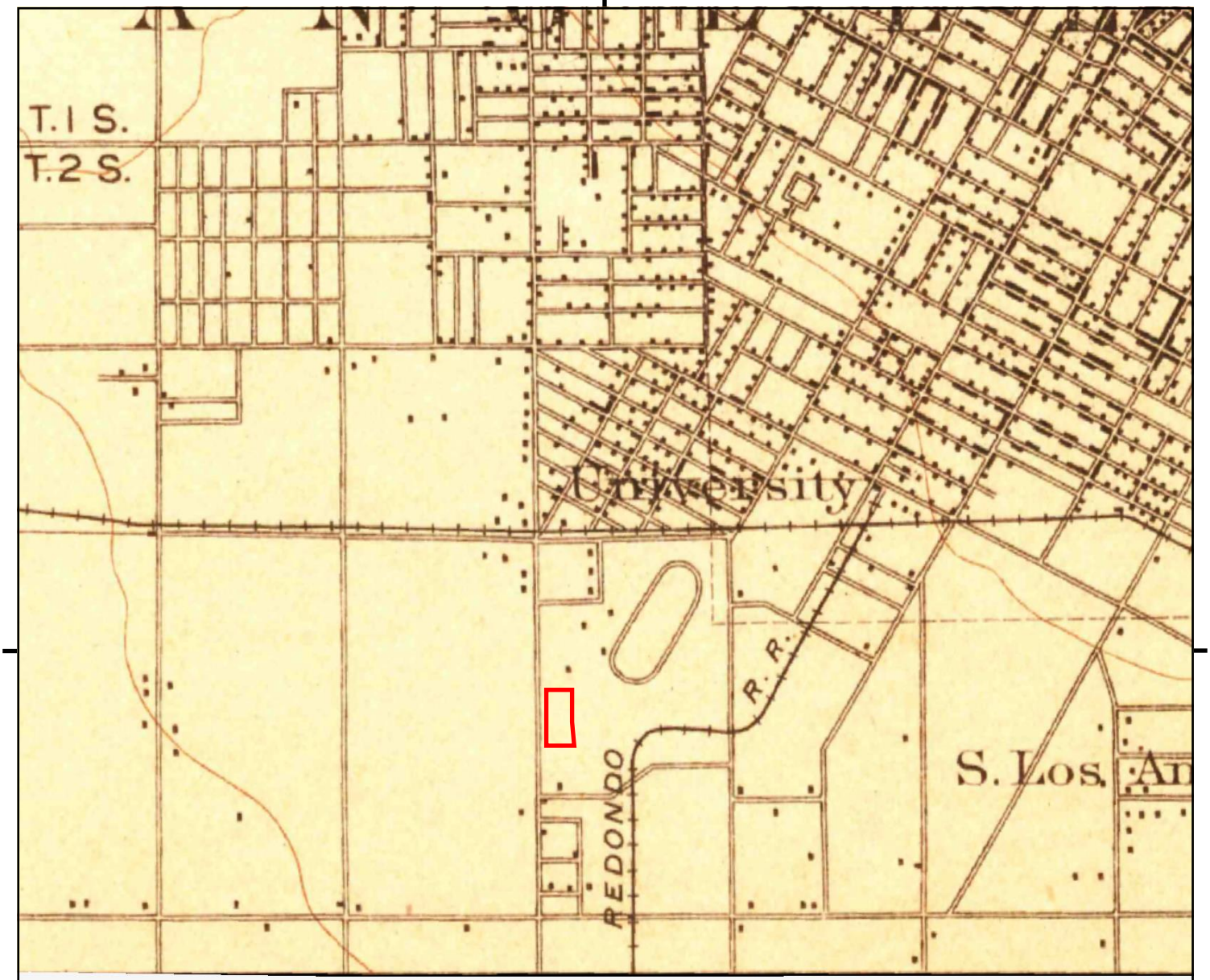
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Los Angeles, 1900, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N



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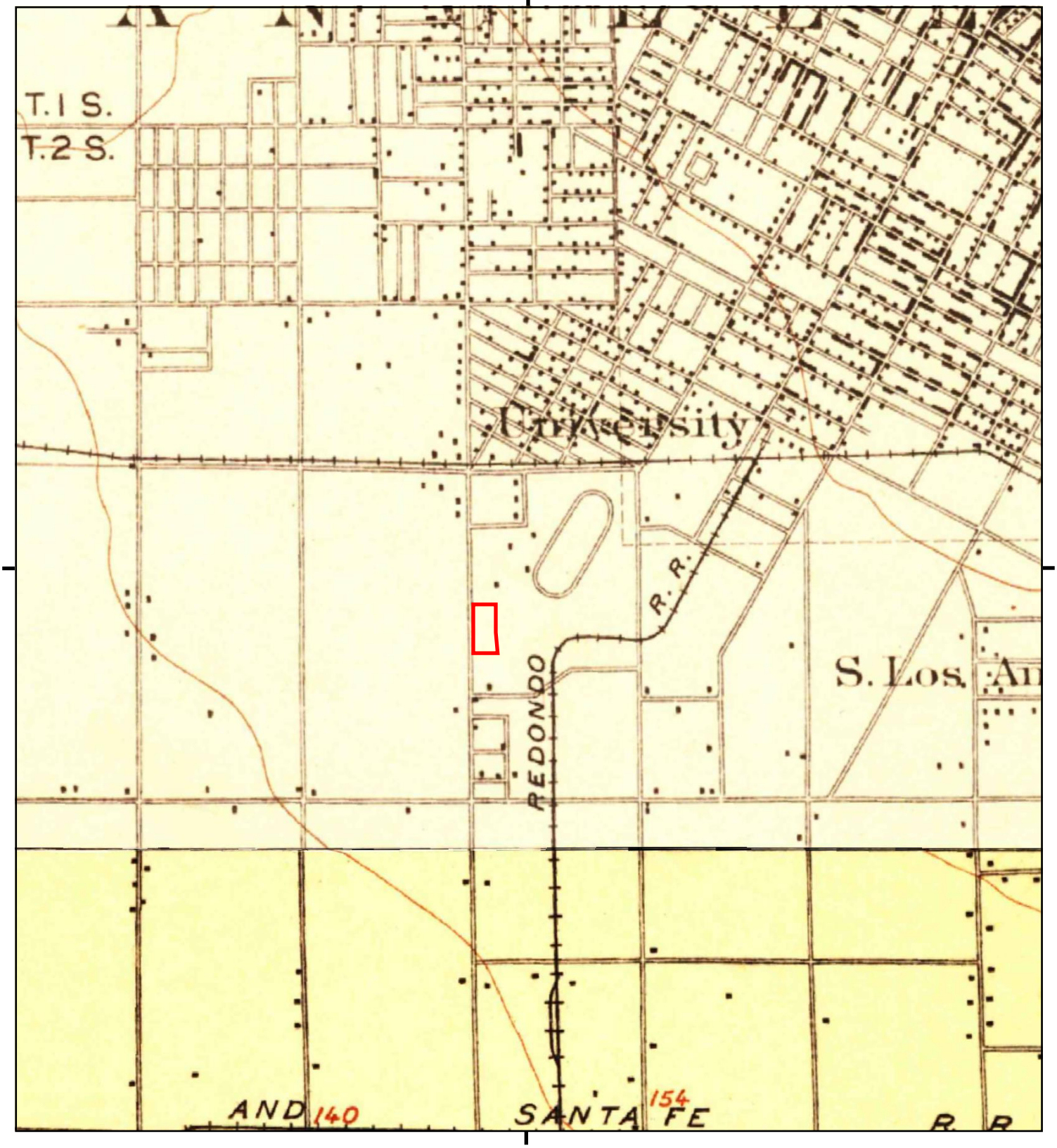
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Santa Monica, 1898, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

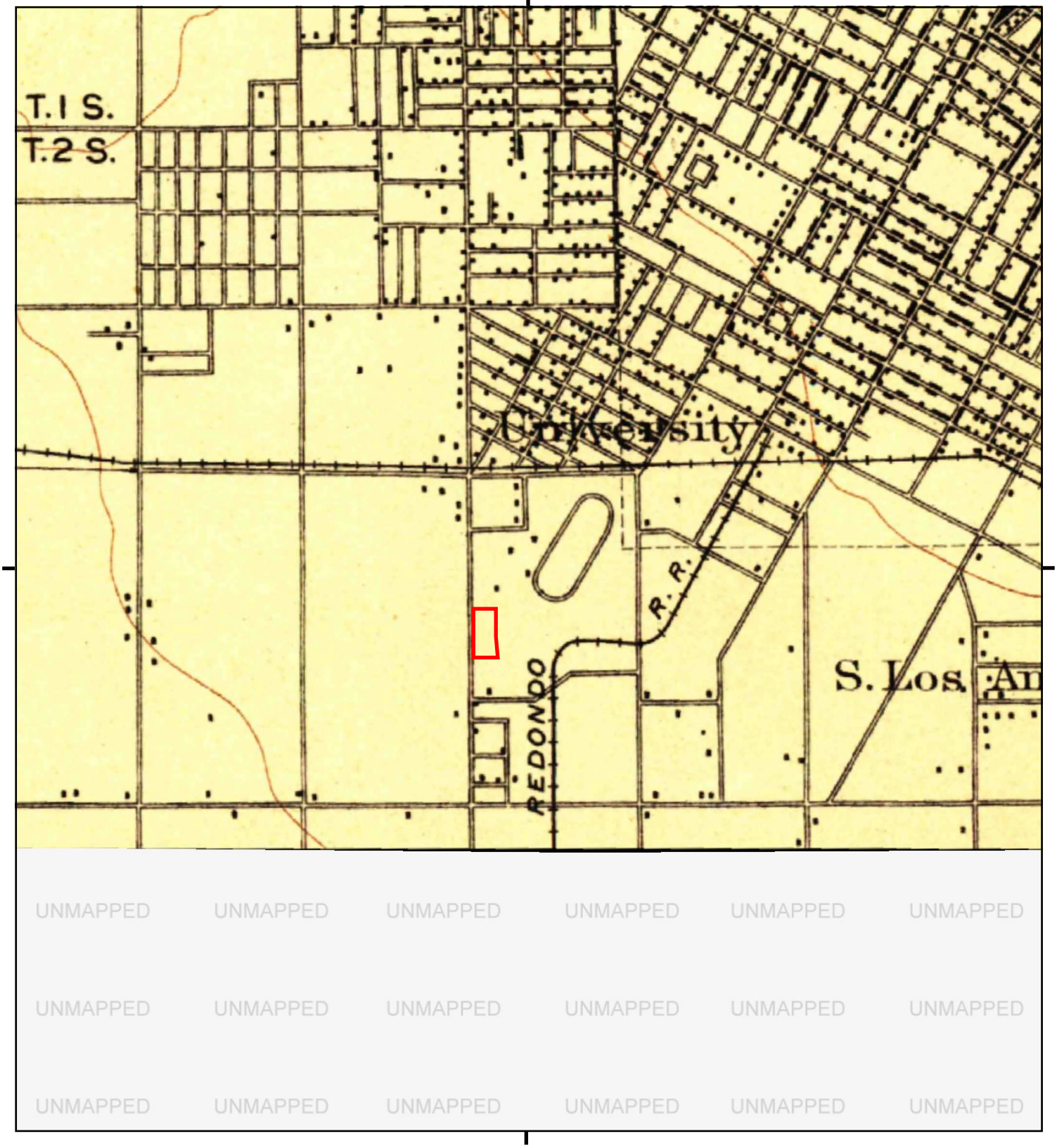
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Santa Monica, 1896, 15-minute
SW, Redondo, 1896, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N



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UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Los Angeles, 1894, 15-minute

SITE NAME: USC/Parking Lots 1 and 1A
ADDRESS: S Vermont Avenue and Martin Luther Kin
Los Angeles, CA 90037
CLIENT: Converse Consultants

N

City Directory

Appendix E

Converse Project No. 17-42-106-01
Copyright 2017 Converse Consultants

USC/Parking Lots 1 and 1A
S Vermont Avenue and Martin Luther King Blvd
Los Angeles, CA 90037

Inquiry Number: 4831358.5
January 19, 2017

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	-	X	X	-
2008	Cole Information Services	-	X	X	-
2006	Haines Company, Inc	-	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines Company, Inc.	-	-	-	-
2000	Haines & Company	-	X	X	-
	Haines & Company	X	X	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	-	-	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1986	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1985	Pacific Bell	-	-	-	-
1981	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1980	Pacific Telephone	-	-	-	-
1976	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1975	Pacific Telephone	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1971	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
1966	Pacific Telephone	-	-	-	-
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Pacific Telephone & Telegraph Co.	-	X	X	-
	Pacific Telephone & Telegraph Co.	X	X	X	-
1950	Pacific Telephone	-	-	-	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1929	Los Angeles Directory Co.	X	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	X	X	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
3977 Menlo Avenue	Client Entered	X
34981 Menlo Avenue	Client Entered	
3981 Menlo Avenue	Client Entered	X
3987 Menlo Avenue	Client Entered	X
3991 Menlo Avenue	Client Entered	X
901 Martin Luther King Boulevard	Client Entered	X
933 Martin Luther King Boulevard	Client Entered	X
3990 S Vermont Avenue	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

S Vermont Avenue and Martin Luther King Blvd
Los Angeles, CA 90037

FINDINGS DETAIL

Target Property research detail.

Martin Luther King Boulevard

901 Martin Luther King Boulevard

Year	Uses	Source
2000	XXXX	Haines & Company
1990	LITTLE PIETROS	Pacific Bell
	PIETRO S LITTLE	Pacific Bell
	PIETRO S PIZZA SPAGETTI HOUSE	Pacific Bell

933 Martin Luther King Boulevard

Year	Uses	Source
2000	XXXX	Haines & Company

MENLO AVE

3977 MENLO AVE

Year	Uses	Source
1990	BEY JOSHUA	Pacific Bell
	BOWMAN WILBERT	Pacific Bell
	MACKEY JOHN	Pacific Bell
	MORGAN MILTON JR	Pacific Bell
	SERRATTI ROSA	Pacific Bell
	TREMEL CRAIG	Pacific Bell
	WHITE DAVID	Pacific Bell
1986	AGUILAR RAFAEL	Pacific Bell
	BEY JOSHUA	Pacific Bell
	BROWN WILLIE	Pacific Bell
	RODRIGUEZ MARIO L	Pacific Bell
	SERRATTI ROSA	Pacific Bell
	WHITE DAVID	Pacific Bell
1981	ALLEN JAS	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	BRANCHE ARTHUR W	Pacific Telephone
	BROWN ROY	Pacific Telephone
	GILES C C	Pacific Telephone
	TAYLOR FRANCES	Pacific Telephone
	TODD BILLY JO	Pacific Telephone
	WALLACE ELMORE	Pacific Telephone
1976	Johnson Michael	Pacific Telephone
	Lattin Alvin	Pacific Telephone
	Mc Daniels Adrian V	Pacific Telephone
	Pettus Rhonda	Pacific Telephone
	Rivers Lillian	Pacific Telephone
	Simpson Denise	Pacific Telephone
1951	La Rue H B	Pacific Telephone & Telegraph Co.
	Martin Jo Ann r	Pacific Telephone & Telegraph Co.
	McIntire Leota	Pacific Telephone & Telegraph Co.
	Menlo Edgepark Apts	Pacific Telephone & Telegraph Co.
	S Menlo Houpt Chas r	Pacific Telephone & Telegraph Co.
	Wilson Fern M	Pacific Telephone & Telegraph Co.
1942	ANDERSON Ethel slswn	Los Angeles Directory Co.
	Edge Park Apartments	Los Angeles Directory Co.
	Eichblatt Freda E compt opr Hoffman Hdw Co	Los Angeles Directory Co.
	Eveleth Jerry clk Armour & Co	Los Angeles Directory Co.
	MUELLER Frances S mgr Edge Park Apts	Los Angeles Directory Co.
	NEFF Mary L clk	Los Angeles Directory Co.
	TAYLOR Lyda B Mrs	Los Angeles Directory Co.
	Vinson John O sec Fey & Krause Inc	Los Angeles Directory Co.
1937	Alston A D	Los Angeles Directory Co.
	BARR Helen	Los Angeles Directory Co.
	BEEMAN Anne sten Loyd Wright	Los Angeles Directory Co.
	BEEMAN David H	Los Angeles Directory Co.
	BENJAMIN Robt	Los Angeles Directory Co.
	BENNETT Lawrence	Los Angeles Directory Co.
	BERNSTEIN Harry	Los Angeles Directory Co.
	BERNSTEIN Saul emp Barker Bros	Los Angeles Directory Co.
	BERRYMAN Marshall slsmn Armacost & Royston	Los Angeles Directory Co.
	CARPENTER Edith A	Los Angeles Directory Co.
	COOK Esther	Los Angeles Directory Co.
	Echevaria Robt	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Edgepark Apartments	Los Angeles Directory Co.
	Gardner J D	Los Angeles Directory Co.
	Gibson John	Los Angeles Directory Co.
	GORDON Wm	Los Angeles Directory Co.
	Hanawalt Irene	Los Angeles Directory Co.
	HARMON Edw	Los Angeles Directory Co.
	Hartigan Margt	Los Angeles Directory Co.
	HOUSTON Eliz	Los Angeles Directory Co.
	HOWE Howard B	Los Angeles Directory Co.
	Hrabetin Frank S	Los Angeles Directory Co.
	Hudelson Clara Mrs	Los Angeles Directory Co.
	Hughey Irene Mrs mgr Edgepark Apartments	Los Angeles Directory Co.
	Hunter Chas	Los Angeles Directory Co.
	Jadrnicek Aldo C clk	Los Angeles Directory Co.
	Janks Vivian bkpr Crystal Clnrs & Dyers	Los Angeles Directory Co.
	JORDAN Elwood Madeline	Los Angeles Directory Co.
	JORDAN Jas E clk	Los Angeles Directory Co.
	JORDAN Madelon personnel Western State Gro Co	Los Angeles Directory Co.
	Kennerd Edith	Los Angeles Directory Co.
	LUCAS John W	Los Angeles Directory Co.
	LUCAS Rose L clk	Los Angeles Directory Co.
	Maxine Chas millmn	Los Angeles Directory Co.
	Moshier Jas	Los Angeles Directory Co.
	Norelius Edw	Los Angeles Directory Co.
	PARKER Lucille	Los Angeles Directory Co.
	PECK Louise	Los Angeles Directory Co.
	PERRY Louis	Los Angeles Directory Co.
	Pharmon Jos	Los Angeles Directory Co.
	RICHMOND Ralph clk	Los Angeles Directory Co.
	RICHMOND Raymond	Los Angeles Directory Co.
	Sasser Margt waiter	Los Angeles Directory Co.
	Smale Kenneth	Los Angeles Directory Co.
	STEVENS Andw B Patricia slsmn Glenn W Bradshaw	Los Angeles Directory Co.
	STEVENS Miriam S clk	Los Angeles Directory Co.
	WATTERSON Effie	Los Angeles Directory Co.
	WHEELER Wm	Los Angeles Directory Co.
	WYNN Grace	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Youst A P	Los Angeles Directory Co.
1933	BOWMAN Harry P Muriel Bowman George Motors	Los Angeles Directory Co.
	Bremer John W Alice C supvr Juvenile Hall	Los Angeles Directory Co.
	Corkhill May Mrs	Los Angeles Directory Co.
	Edgepark Apartments	Los Angeles Directory Co.
	ELLSWORTH P L slsmn	Los Angeles Directory Co.
	ELLSWORTH Percival L slsmn Morris P Kirk & Son	Los Angeles Directory Co.
	GARDNER Isabel Mrs	Los Angeles Directory Co.
	MATTHEWS Gertrude A sten	Los Angeles Directory Co.
	MCKINNEY W R	Los Angeles Directory Co.
	MOORE Daisy Mrs	Los Angeles Directory Co.
	Riessen Bernice clk	Los Angeles Directory Co.
	Riessen Herbt auto mech	Los Angeles Directory Co.
	SHIELDS slsmn	Los Angeles Directory Co.
	STANLEY Allen Mabel jan	Los Angeles Directory Co.
	STARR Margt sec girl reserve YWCA	Los Angeles Directory Co.
	STARR Rebecca	Los Angeles Directory Co.
	Zumbrun Elsie A	Los Angeles Directory Co.
1929	Arbo Adele Mrs	Los Angeles Directory Co.
	Backer Patricia	Los Angeles Directory Co.
	BARNES Bert E Edith adv	Los Angeles Directory Co.
	BURNS Rollo D apts	Los Angeles Directory Co.
	DAY Arth R slsmn Shell Co	Los Angeles Directory Co.
	Drongeson Ruth with Cal Lutheran Hosp	Los Angeles Directory Co.
	Edgepark Apartments	Los Angeles Directory Co.
	Knab Thelma M underwriter	Los Angeles Directory Co.
	Mac KAY Kath	Los Angeles Directory Co.
	Maguire Betty	Los Angeles Directory Co.
	Mc COLLUM Jas M police	Los Angeles Directory Co.
	Mc Keehan Earl P mgr C L Duncan Co	Los Angeles Directory Co.
	Mc KINNEY Robt W Regent Theatre	Los Angeles Directory Co.
	MEAD Vivienne	Los Angeles Directory Co.
	Okey R M Mrs	Los Angeles Directory Co.
	REIDER Harry r	Los Angeles Directory Co.
	REIDER Leonard h	Los Angeles Directory Co.
	SCHROEDER Frank A h	Los Angeles Directory Co.
	SMITH Mabel L h	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	SNYDER D R clk h	Los Angeles Directory Co.
	SNYDER Gladys exec sec Harbor Dept r	Los Angeles Directory Co.
	SNYDER Grace B sten r	Los Angeles Directory Co.
	SNYDER Wm r	Los Angeles Directory Co.
	Velter Victor engine mech r	Los Angeles Directory Co.
	Vetter Clara M bkpr Hallenscheid & Mc Donald r	Los Angeles Directory Co.
	VETTER Victor V h	Los Angeles Directory Co.
	WALKER Barney L Ruby slsmn Wilson Co r	Los Angeles Directory Co.
	WARDELL Amelia E sten h	Los Angeles Directory Co.
	WILEY Forrest M Peggy h	Los Angeles Directory Co.
	WOODS C B Celeste r	Los Angeles Directory Co.

3981 MENLO AVE

Year	Uses	Source
1986	ALBA SALVADOR	Pacific Bell
	ARMENDAREZ CONSUELO	Pacific Bell
	BECERRA MARIA	Pacific Bell
	BOLIVAR MARIA T	Pacific Bell
	GOMEZ SYLVIA	Pacific Bell
	JARAMILLO MERCEDES	Pacific Bell
	PEREZ JUAN	Pacific Bell
	RAMOS AIDA	Pacific Bell
	SANCHEZ ANNE	Pacific Bell
1981	ARAIZA JOSE	Pacific Telephone
	BONAC JOSE F	Pacific Telephone
	CANTU LUIS	Pacific Telephone
	CANTU UBILLIBALDO G	Pacific Telephone
	CHAGOLLAN ODULIA	Pacific Telephone
	DELGADO BERTHA G	Pacific Telephone
	ESTRADA CONCEPCION	Pacific Telephone
	GOMEZ JOSE P	Pacific Telephone
	GONZALES ATILIO PEREL	Pacific Telephone
	GONZALEZ ATTLIO P	Pacific Telephone
	GONZALEZ PEDRO P	Pacific Telephone
	GRAHAM ELMER	Pacific Telephone
	HERNANDEZ EVARISTO	Pacific Telephone
	LARIS FELIPE NUNEZ	Pacific Telephone
	LOPEZ FRANCISCO J	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	MENJIVAR RUBEN	Pacific Telephone
	MIJARES JOSE SANTOS	Pacific Telephone
	MIRANDA CONRADINO	Pacific Telephone
	OCHOA MIGUEL	Pacific Telephone
	PEREL LETICIA	Pacific Telephone
	PRADO MANUEL ZAMORA	Pacific Telephone
	RAMIREZ JESUS	Pacific Telephone
	ROMAN JESUS	Pacific Telephone
	ROSA	Pacific Telephone
	SOLIZ ELVIRA	Pacific Telephone
	SOTO GAUDENCIA C	Pacific Telephone
	VELAZQUEZ MANUEL	Pacific Telephone
	ZAMORA ARTURO	Pacific Telephone
1976	Baker Ricardo	Pacific Telephone
	Castillo Vilma	Pacific Telephone
	Clark Margaret	Pacific Telephone
	Lovet Mildred	Pacific Telephone
	Mimms Melvin	Pacific Telephone
	Parker Sie	Pacific Telephone
	Porter Charmian	Pacific Telephone
	Walters Bettye	Pacific Telephone
1951	A Yearsley Ethel	Pacific Telephone & Telegraph Co.
	Anderson A Clark r	Pacific Telephone & Telegraph Co.
	Aronson Louis r	Pacific Telephone & Telegraph Co.
	Corty Alice G Mrs	Pacific Telephone & Telegraph Co.
	Doan Claudia E	Pacific Telephone & Telegraph Co.
	Doktorich J F r	Pacific Telephone & Telegraph Co.
	Duane Chas F r	Pacific Telephone & Telegraph Co.
	Evans Robt K	Pacific Telephone & Telegraph Co.
	Frank Colista r	Pacific Telephone & Telegraph Co.
	Gabriel Howard S r	Pacific Telephone & Telegraph Co.
	Hardie Alice	Pacific Telephone & Telegraph Co.
	Menlo Av El Portal Apt Hotel	Pacific Telephone & Telegraph Co.
	Moore Thos H r	Pacific Telephone & Telegraph Co.
	Myhre Henry r	Pacific Telephone & Telegraph Co.
	Nelson Geo R	Pacific Telephone & Telegraph Co.
	OCampos S J r	Pacific Telephone & Telegraph Co.
	S Menlo Higginbotham Robt S Jr r	Pacific Telephone & Telegraph Co.

FINDINGS

Year	Uses	Source
1951	Schlatter Geneva r	Pacific Telephone & Telegraph Co.
	Seymour E H r	Pacific Telephone & Telegraph Co.
	Snyder Leonard S r	Pacific Telephone & Telegraph Co.
	Sotelo Salvador A	Pacific Telephone & Telegraph Co.
	Tischhauser Katherine r	Pacific Telephone & Telegraph Co.
	Working C F r	Pacific Telephone & Telegraph Co.
1942	Blackman Mary L clk Golding Bros Inc	Los Angeles Directory Co.
	CAMP Ortho O ptrnmkr	Los Angeles Directory Co.
	Corbin Clara Mrs mgr El Portal Apts	Los Angeles Directory Co.
	Corson Gwendolyn L tchr Pub Sch	Los Angeles Directory Co.
	FRY Geo W autos	Los Angeles Directory Co.
	GILMORE John O crmrywkr	Los Angeles Directory Co.
	JACKSON Eleanor M tel opr	Los Angeles Directory Co.
	JOHNSON Erma E sten UOCo	Los Angeles Directory Co.
	Kent Arth R clk	Los Angeles Directory Co.
	LANE Albt L clk	Los Angeles Directory Co.
	LONG Kay sten Parker & Stanbury	Los Angeles Directory Co.
	Mc Elroy Ferne R sten R H Alber	Los Angeles Directory Co.
	Mills Alice T tchr Pub Sch	Los Angeles Directory Co.
	NOBLE Prather L Pearl mgr Eureka Freight Lines	Los Angeles Directory Co.
	OLSEN Hanford T slsmn SCTCo	Los Angeles Directory Co.
	PEDERSEN Ellen bkpr Inglewood Park Cemetery Assn	Los Angeles Directory Co.
	PEDERSEN Peder R clk	Los Angeles Directory Co.
	PEDERSEN Theo clk	Los Angeles Directory Co.
	Pinnick Jos A asst supvr atdt Pub Sch	Los Angeles Directory Co.
	Poe Alice sten Wm L Barrell Co	Los Angeles Directory Co.
	RABE Susan J sten Santa Fe Land Improvement Co	Los Angeles Directory Co.
	Ray Erma L ofc sec L L Schaumer	Los Angeles Directory Co.
	RHOADES Florence nurse CHD	Los Angeles Directory Co.
	Towers Marjorie E bkpr Lawrence Phillips Lbr Co	Los Angeles Directory Co.
	WESCOTT May priv sec Westinghouse Elec Elev Co	Los Angeles Directory Co.
1937	Andrada Charlotte sten CNT & S Bank	Los Angeles Directory Co.
	BARRETT Vera sten J E Babcock	Los Angeles Directory Co.
	BECKER Mary A clk County Charities	Los Angeles Directory Co.
	BENNETT S E Mrs	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Bonner Herbt D dist dir County Charities	Los Angeles Directory Co.
	Byrne Clara J Mrs beauty shop	Los Angeles Directory Co.
	Corbin Clara wid W A mgr El Portal Apts	Los Angeles Directory Co.
	Corbin Kath sten	Los Angeles Directory Co.
	CORSON Gwendolyn L tchr City Sch	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	EMERSON Virginia	Los Angeles Directory Co.
	Hedden Minor L slsmn Reiman Whol Elec Co	Los Angeles Directory Co.
	HILL John A clk	Los Angeles Directory Co.
	HIRSCH Hilda sten Angelus Paper Box Co	Los Angeles Directory Co.
	HOLDER Marvin D producer Pac Finance Corp	Los Angeles Directory Co.
	Holtfrerich Geo F Rachel tchr City Sch	Los Angeles Directory Co.
	Littler Loren D Pearl pres Fire Appliances Inc	Los Angeles Directory Co.
	Maxwell Evelyn bkpr Safeway Stores	Los Angeles Directory Co.
	Mills Alice T Mrs tchr City Sch	Los Angeles Directory Co.
	MORGAN John C electn	Los Angeles Directory Co.
	Muzze Mary A compt opr	Los Angeles Directory Co.
	Panczak Maret sten Western Enterprise Engine Co	Los Angeles Directory Co.
	RUSSELL Mary E slswn	Los Angeles Directory Co.
	SANDERS R H	Los Angeles Directory Co.
	SLOAN Garnet E slswn	Los Angeles Directory Co.
	Towers Marjorie E sec Lawrence Phillips Lbr Co	Los Angeles Directory Co.
	Working C F	Los Angeles Directory Co.
	Wright Hay Adelaide tchr City Sch	Los Angeles Directory Co.
1933	ADAMS Clarence R	Los Angeles Directory Co.
	ALLEN Charline waiter	Los Angeles Directory Co.
	ALLEN Edw housemn	Los Angeles Directory Co.
	ALLEN Jean nurse	Los Angeles Directory Co.
	ALLEN Winifred sten	Los Angeles Directory Co.
	Asling Edw cook	Los Angeles Directory Co.
	Badgley Virginia H tel opr	Los Angeles Directory Co.
	BARRETT Marie clk	Los Angeles Directory Co.
	BARRETT Vera sten	Los Angeles Directory Co.
	BARROWS Ruth clk Co Sealer of Weights & Measures	Los Angeles Directory Co.
	BECK Lenora sten	Los Angeles Directory Co.
	Becker Amelia	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	BECKER Regina lndywkr	Los Angeles Directory Co.
	BERGE Byron	Los Angeles Directory Co.
	Bithel Fred cik	Los Angeles Directory Co.
	Bithel Warren	Los Angeles Directory Co.
	Blythe Frank slsmn	Los Angeles Directory Co.
	Byrne Clara J Mrs beauty shop	Los Angeles Directory Co.
	Cavell Korine techn asst USC	Los Angeles Directory Co.
	Converse Helen nurse	Los Angeles Directory Co.
	Cousins C J Violet	Los Angeles Directory Co.
	Covell M H Mrs	Los Angeles Directory Co.
	COX Herman slsmn	Los Angeles Directory Co.
	CROCKER Helen sten	Los Angeles Directory Co.
	DAVIS F sten	Los Angeles Directory Co.
	Dies Wayne L Helen clk	Los Angeles Directory Co.
	EAGAN Kath sten	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	Emmett Chas A sergt USA instr State Natl Guard	Los Angeles Directory Co.
	Evans Thelma clk	Los Angeles Directory Co.
	Ficklin E C	Los Angeles Directory Co.
	GILMORE John O crmrywkr	Los Angeles Directory Co.
	HARBERT Gertrude Mrs	Los Angeles Directory Co.
	HARBERT Lloyd C oil well supp	Los Angeles Directory Co.
	HENRY Ruth marcellor	Los Angeles Directory Co.
	HOOD Margt sten	Los Angeles Directory Co.
	JONES Vernon E Ruth	Los Angeles Directory Co.
	Kesterson Thelma sten	Los Angeles Directory Co.
	KING Edw S	Los Angeles Directory Co.
	KING Fred W	Los Angeles Directory Co.
	Kottnauer Edw slsmn	Los Angeles Directory Co.
	LEWIS S R	Los Angeles Directory Co.
	LIBERMAN E L	Los Angeles Directory Co.
	Martin Edith Mrs	Los Angeles Directory Co.
	Martinetti Ruby E Mrs tchr City Schs	Los Angeles Directory Co.
	MAXWELL Evelyn bkpr Safeway Stores	Los Angeles Directory Co.
	MC COY Ralph G Denise barber	Los Angeles Directory Co.
	Mc ROBERTS Eliz tchr	Los Angeles Directory Co.
	MCBRIDE Helen sten	Los Angeles Directory Co.
	Miller Alice clk	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	Moberg Ralph Ethel	Los Angeles Directory Co.
	MOSHIER Peggy E sten	Los Angeles Directory Co.
	Nashke Wm E meat ctr	Los Angeles Directory Co.
	NELSON Edw Matilda slsmn	Los Angeles Directory Co.
	OBRIEN Harriet	Los Angeles Directory Co.
	Overboy W J tel opr	Los Angeles Directory Co.
	PENDERGAST W F	Los Angeles Directory Co.
	PHILLIPS Pauline T tel opr	Los Angeles Directory Co.
	PRENDERGAST Wm F Pearl emp Moreland Sales Corp	Los Angeles Directory Co.
	RANKIN Mildred beauty opr	Los Angeles Directory Co.
	RAYMOND Richd E pharm	Los Angeles Directory Co.
	RUSSELL Florence sten	Los Angeles Directory Co.
	Russill Florence H asst sec Thompson Mfg Co	Los Angeles Directory Co.
	Sacharsky Cecile waiter	Los Angeles Directory Co.
	SMITH Amelia sten	Los Angeles Directory Co.
	SMITH Sidney J	Los Angeles Directory Co.
	Spleen Jerry Ida	Los Angeles Directory Co.
	Storace Helen Mrs	Los Angeles Directory Co.
	Storace Lenore clk	Los Angeles Directory Co.
	TATE Virginia L clk	Los Angeles Directory Co.
	TAYLOR Wendell H	Los Angeles Directory Co.
	Terrill Louise Mrs	Los Angeles Directory Co.
	THOMSON Scott S pntr	Los Angeles Directory Co.
	Trappe Fred P Marie slsmn Hammond Lbr Co	Los Angeles Directory Co.
	VINCENT Ruth beauty opr	Los Angeles Directory Co.
	WADDELL James	Los Angeles Directory Co.
	WARREN Max	Los Angeles Directory Co.
	WEBB Hazel I sten	Los Angeles Directory Co.
	Whitten Laura Mrs sten	Los Angeles Directory Co.
	WILSON Edgar C	Los Angeles Directory Co.
1929	Anderson H E	Los Angeles Directory Co.
	Bomar D C	Los Angeles Directory Co.
	BOWMAN W H	Los Angeles Directory Co.
	Brinton R G	Los Angeles Directory Co.
	CONNOR Ned	Los Angeles Directory Co.
	Cox Calvin	Los Angeles Directory Co.
	Deil N H	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	Deimer Geo	Los Angeles Directory Co.
	Deitrich J F	Los Angeles Directory Co.
	Duden L	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	Fetz Victoria	Los Angeles Directory Co.
	Genett Bernice bkpr Grosvenor Inglis Corp	Los Angeles Directory Co.
	HALL Violet clk	Los Angeles Directory Co.
	Harwood A D	Los Angeles Directory Co.
	Harwood C M	Los Angeles Directory Co.
	HENDERSON E V	Los Angeles Directory Co.
	HERRON E W	Los Angeles Directory Co.
	HOPKINS Ruth	Los Angeles Directory Co.
	HOPKINS W J	Los Angeles Directory Co.
	Jeannette Bernice	Los Angeles Directory Co.
	JOHNSON F B	Los Angeles Directory Co.
	JOHNSON Florence	Los Angeles Directory Co.
	Judge Thos	Los Angeles Directory Co.
	KEELER Mildred	Los Angeles Directory Co.
	LAMBERT W E autowkr	Los Angeles Directory Co.
	LAW Sarah	Los Angeles Directory Co.
	Le Blane Ethel sten	Los Angeles Directory Co.
	LEWIS Mae Mrs drsmkr	Los Angeles Directory Co.
	LOMBARD Kate	Los Angeles Directory Co.
	Margolin Saml J	Los Angeles Directory Co.
	Mauser O B	Los Angeles Directory Co.
	Maxwell Evelyn clk	Los Angeles Directory Co.
	Mc BEAN Carroll W bkpr L H Manning & Co	Los Angeles Directory Co.
	Mc BEAN Ruth P supvr SCTCo	Los Angeles Directory Co.
	MENDEL Harry Sophie barber	Los Angeles Directory Co.
	MURPHY Fred A police	Los Angeles Directory Co.
	Naggart Kath	Los Angeles Directory Co.
	Neilson E M	Los Angeles Directory Co.
	OConnor C A	Los Angeles Directory Co.
	OWENS Myrtle	Los Angeles Directory Co.
	Pyfer Milton J barber r	Los Angeles Directory Co.
	Quinhvian Jas h	Los Angeles Directory Co.
	r	Los Angeles Directory Co.
	Rathman Ruth M slsldy r	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	REYNOLDS M S h	Los Angeles Directory Co.
	RICE M A r	Los Angeles Directory Co.
	ROBEY D Louise sec J Calvin Brown r	Los Angeles Directory Co.
	ROSE T A h	Los Angeles Directory Co.
	Rosenberger Ida M depy Co Recorder r	Los Angeles Directory Co.
	Rothman R M r	Los Angeles Directory Co.
	Sauers Jos F r	Los Angeles Directory Co.
	Sauers Vina apts	Los Angeles Directory Co.
	Showalter Glenna h	Los Angeles Directory Co.
	SMITH Cora h	Los Angeles Directory Co.
	SNYDER S C h	Los Angeles Directory Co.
	Soike Fredk h	Los Angeles Directory Co.
	Soyka Theo V meats	Los Angeles Directory Co.
	Spence Eric r	Los Angeles Directory Co.
	Stillman W h	Los Angeles Directory Co.
	SWANSON W r	Los Angeles Directory Co.
	Trudeau Peter A r	Los Angeles Directory Co.
	WALTERS Doris beauty opr r	Los Angeles Directory Co.
	WALTERS Mills E millmn r	Los Angeles Directory Co.
	WELLING R A r	Los Angeles Directory Co.
	Widner Chas pilot Aero Corp of Cal r	Los Angeles Directory Co.
	WILLIAMS Edith h	Los Angeles Directory Co.
	WILLIAMS H h	Los Angeles Directory Co.
	WILLIAMSON Carlo h	Los Angeles Directory Co.

3987 MENLO AVE

Year	Uses	Source
1990	ALBA TERESA L	Pacific Bell
	ALVAREZ S	Pacific Bell
	CABALLERO MARIA E	Pacific Bell
	CANTEROS ESTEBON PEREZ	Pacific Bell
	CONTRERAS EXIQUIO	Pacific Bell
	GARCIA ALMA	Pacific Bell
	HERNANDEZ-CARDONA JOSE LUIS	Pacific Bell
	MARTINEZ HUGO	Pacific Bell
	MARTINEZ J	Pacific Bell
	MIGUEL HECTOR	Pacific Bell
	MIRANDA VICENTE A	Pacific Bell
	NAVAREZ JOSE	Pacific Bell

FINDINGS

Year	Uses	Source
1990	SALOME M V	Pacific Bell
1986	ALBA TERESA L	Pacific Bell
	CABALLERO MARIA E	Pacific Bell
	MARQUEZ NICOLAS S	Pacific Bell
	NAVARRETE MARTIN	Pacific Bell
1981	ALBA TEREA L	Pacific Telephone
	AYALA ADELAIDO M	Pacific Telephone
	DIAZ JOSE L	Pacific Telephone
	ECHEVERRIA VIDAL	Pacific Telephone
	ELVIRA OFELIA	Pacific Telephone
	HERNANDEZ JUAN	Pacific Telephone
	LOPEZ MARIA ELENA	Pacific Telephone
	MONTENEGRO MARTIN G	Pacific Telephone
	PEREZ-ANA MARGARITA	Pacific Telephone
	RAMIREZ MARIA A	Pacific Telephone
	RODRIGUEZ JOSE ROBERTO	Pacific Telephone
	SOLIS ISIDRO	Pacific Telephone
	TOBAR ANA	Pacific Telephone
	TRANQUILINO ABEL	Pacific Telephone
1951	Bryant Henry C r	Pacific Telephone & Telegraph Co.
	Dunn Richard E r	Pacific Telephone & Telegraph Co.
	Hendrix M P Mrs r	Pacific Telephone & Telegraph Co.
	Johnson Mary R r	Pacific Telephone & Telegraph Co.
	Menlo	Pacific Telephone & Telegraph Co.
1942	Adams Dorothy L clk	Los Angeles Directory Co.
	Adams Edgar C Clara R carp	Los Angeles Directory Co.
	Adams Virgil C clk	Los Angeles Directory Co.
	BLOCK Jack driver	Los Angeles Directory Co.
	Boomer Edw A clk	Los Angeles Directory Co.
	Caudill Geo bartndr	Los Angeles Directory Co.
	COON Robt C driver	Los Angeles Directory Co.
	EDWARDS Irving bldg contr	Los Angeles Directory Co.
	FOWLER Helen waiter	Los Angeles Directory Co.
	GIBBONS Clifford E clk	Los Angeles Directory Co.
	GIBBONS Edw R May M mgr Parkway Apts	Los Angeles Directory Co.
	GILLMAN Chas E mech	Los Angeles Directory Co.
	GILMAN Ted Evelyn mech	Los Angeles Directory Co.
	HOGAN Roy T driver	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	METZGER Frank W Bertha gas sta	Los Angeles Directory Co.
	Munguia Nellie uphol	Los Angeles Directory Co.
	Parker Lavilla N	Los Angeles Directory Co.
	PARKER Nora B Mrs	Los Angeles Directory Co.
	PARKER Virginia L tmkpr	Los Angeles Directory Co.
	Parkway Apartments	Los Angeles Directory Co.
	PURDY Wm E slsmn	Los Angeles Directory Co.
	RYAN Marcia Mrs clk	Los Angeles Directory Co.
	RYAN Marsha E clk	Los Angeles Directory Co.
	SEARLE Alex E Beatrice clk	Los Angeles Directory Co.
	Serle Alex E clk	Los Angeles Directory Co.
	Stepleton Mabel E Mrs clk	Los Angeles Directory Co.
	Tift Roy H Laura E mech	Los Angeles Directory Co.
	Unholz Carl R Anna M formn Eagle Rock Advertiser	Los Angeles Directory Co.
	WALKER Laurence M tchr Pub Sch	Los Angeles Directory Co.
1937	ADAMS Clive L waiter	Los Angeles Directory Co.
	AHRENS Kath	Los Angeles Directory Co.
	AHRENS Ruth	Los Angeles Directory Co.
	Bicknell Doris	Los Angeles Directory Co.
	Bitali Louis	Los Angeles Directory Co.
	Bulah Chas H utilitymn Barker Bros	Los Angeles Directory Co.
	COLE Isabel K Mrs tchr City Sch	Los Angeles Directory Co.
	DAWSON Florence E	Los Angeles Directory Co.
	De Serano Ethel D	Los Angeles Directory Co.
	Dick J R	Los Angeles Directory Co.
	Elliott Wm Ina carrier PO	Los Angeles Directory Co.
	GORDON Madeline L Mrs tchr City Sch	Los Angeles Directory Co.
	Gruby Robt J Inez E	Los Angeles Directory Co.
	Hyde Mary E	Los Angeles Directory Co.
	Kirby Fama clk	Los Angeles Directory Co.
	Koskey Emma factywkr	Los Angeles Directory Co.
	Lank Michl	Los Angeles Directory Co.
	LEE Martin	Los Angeles Directory Co.
	Markey Ella	Los Angeles Directory Co.
	Markey Jean	Los Angeles Directory Co.
	Morgan Clarence	Los Angeles Directory Co.
	MORGAN Wm E dist mgr Evening Herald & Exp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Odson Grace slswn	Los Angeles Directory Co.
	PARK Manor Apartments	Los Angeles Directory Co.
	PEARSON Florence	Los Angeles Directory Co.
	Pecks Dorothy	Los Angeles Directory Co.
	Pemberton Viola	Los Angeles Directory Co.
	Perrodil Nelson D	Los Angeles Directory Co.
	Poykka Katie mach opr	Los Angeles Directory Co.
	Pyko Kath	Los Angeles Directory Co.
	RAYMUND Ruby Mrs mgr Park Manor Apts	Los Angeles Directory Co.
	Rye Lois M sten C W Ritter Co	Los Angeles Directory Co.
	Standerfer Wm E crmrywkr	Los Angeles Directory Co.
	SWANSON Mary Mrs	Los Angeles Directory Co.
	Tombs S B Miss	Los Angeles Directory Co.
	Wasgate A B	Los Angeles Directory Co.
	Wengenroth Fredk W Alice	Los Angeles Directory Co.
	WILDE Irene Mrs	Los Angeles Directory Co.
	WISE Jas chainmn Met Water Dist	Los Angeles Directory Co.
	WOOD Dorothy	Los Angeles Directory Co.
	WOOD Ruth sten	Los Angeles Directory Co.
	Yont Mary Mrs	Los Angeles Directory Co.
1933	BAUMAN Philip	Los Angeles Directory Co.
	BROWN Clem bkpr	Los Angeles Directory Co.
	BURG Edw	Los Angeles Directory Co.
	BURNEY Charlotte E clk	Los Angeles Directory Co.
	CAIN Jas	Los Angeles Directory Co.
	Coles Ellery pntr	Los Angeles Directory Co.
	Coles Jerry beauty opr	Los Angeles Directory Co.
	Ely Leland S	Los Angeles Directory Co.
	Erie Apartments	Los Angeles Directory Co.
	FALCONER Edw Myrtle	Los Angeles Directory Co.
	Garrett Bert P Mrs mgr Erie Apts	Los Angeles Directory Co.
	GARRETT Shirle I	Los Angeles Directory Co.
	GIBBONS Violet Mrs bkpr	Los Angeles Directory Co.
	Helms Wm P Emma M gdnr Park Dept	Los Angeles Directory Co.
	Hilden Louise X ray techn Cal Hosp	Los Angeles Directory Co.
	Krodell Geo slsmn	Los Angeles Directory Co.
	LEE Harry W	Los Angeles Directory Co.
	MAHER Geo A	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	MAY Newton	Los Angeles Directory Co.
	Parks Merle D tchr City Schs	Los Angeles Directory Co.
	PAYNE Dewey slsmn W F Blackburn	Los Angeles Directory Co.
	Reger Quentin slsmn	Los Angeles Directory Co.
	ROBERTSON Fred slsmn	Los Angeles Directory Co.
	Sealey Harry Rose slsmn	Los Angeles Directory Co.
	Sealey Rose Mrs asst mgr Erie Apts	Los Angeles Directory Co.
	Shappel Saml	Los Angeles Directory Co.
	TRADE Irene weaver	Los Angeles Directory Co.
	TRADE Ruth weaver	Los Angeles Directory Co.
1929	BEARD Sanford L Jessie I electn	Los Angeles Directory Co.
	Bellamy Eli	Los Angeles Directory Co.
	BOLINGER Russell	Los Angeles Directory Co.
	CARTER Coolidge	Los Angeles Directory Co.
	CHAMBERS Le Roy jan	Los Angeles Directory Co.
	COOPER Laduska A wid John	Los Angeles Directory Co.
	Erie Apartments	Los Angeles Directory Co.
	Evenson Ernest H prsfdr	Los Angeles Directory Co.
	FISHER Albt slsmn	Los Angeles Directory Co.
	Fosburgh Gale R prsfdr	Los Angeles Directory Co.
	FREDRICKS Chas	Los Angeles Directory Co.
	GARRETT Bert P apts	Los Angeles Directory Co.
	GARRETT Shirle	Los Angeles Directory Co.
	GROSSMAN Henry	Los Angeles Directory Co.
	Hackler John	Los Angeles Directory Co.
	HILL Mary C slsdy	Los Angeles Directory Co.
	HOUSE Edgar L slsmn Union Oil Co	Los Angeles Directory Co.
	Iden Wm A Anna mgr Kerr Rug Mfg Co	Los Angeles Directory Co.
	Kargus Stanley Lydia	Los Angeles Directory Co.
	Kumlar John	Los Angeles Directory Co.
	Lawless John C Isabelle	Los Angeles Directory Co.
	Levi Robt	Los Angeles Directory Co.
	Mac DONELL Alena sten	Los Angeles Directory Co.
	Maggerelle Mae	Los Angeles Directory Co.
	Mc DONELL Alena sten	Los Angeles Directory Co.
	Mc LEAN Hugh D bkpr Sears Roebuck & Co	Los Angeles Directory Co.
	MORSE M B	Los Angeles Directory Co.
	NELSON Norman E and Sears Roebuck & Co	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	OSBURN M D	Los Angeles Directory Co.
	PETERSON Geo	Los Angeles Directory Co.
	Petty Donald	Los Angeles Directory Co.
	Schwanzara Chas decorator h	Los Angeles Directory Co.
	SHEARER Ruth h	Los Angeles Directory Co.
	SIMPSON Lee r	Los Angeles Directory Co.
	SMITH Bruce r	Los Angeles Directory Co.
	TEMPLE Clyde auto mech h	Los Angeles Directory Co.
	Truesdale Richd h	Los Angeles Directory Co.
	Truesdell Richd S Gathin & Truesdell h	Los Angeles Directory Co.
	Weadock Alice phone opr h	Los Angeles Directory Co.
	Youngberg Fannie wid Andw h	Los Angeles Directory Co.

3991 MENLO AVE

Year	Uses	Source
1951	Menlo Carr Opal r	Pacific Telephone & Telegraph Co.
	Menlo Vicars Betty r	Pacific Telephone & Telegraph Co.
	Menlo Watson Ellen Mrs r	Pacific Telephone & Telegraph Co.
	S Menlo Av Rhodes Anna M r	Pacific Telephone & Telegraph Co.
1942	Bradshaw Madeline clk	Los Angeles Directory Co.
	Hansler Albt G Grita	Los Angeles Directory Co.
	Huston Marion J Alice	Los Angeles Directory Co.
	Morain Lorey Marie fctywkr	Los Angeles Directory Co.
	SIMS Morris L Joann electn	Los Angeles Directory Co.
	WATSON Allen J tchr Pub Sch	Los Angeles Directory Co.
	WATSON Elene Mrs	Los Angeles Directory Co.
1929	JOHNSON Orris Mrs	Los Angeles Directory Co.

Menlo Avenue

3977 Menlo Avenue

Year	Uses	Source
1990	BEY JOSHUA	Pacific Bell
	BOWMAN WILBERT	Pacific Bell
	MACKEY JOHN	Pacific Bell
	MORGAN MILTON JR	Pacific Bell
	SERRATTI ROSA	Pacific Bell
	TREMEL CRAIG	Pacific Bell
	WHITE DAVID	Pacific Bell

FINDINGS

Year	Uses	Source
1986	AGUILAR RAFAEL	Pacific Bell
	BEY JOSHUA	Pacific Bell
	BROWN WILLIE	Pacific Bell
	RODRIGUEZ MARIO L	Pacific Bell
	SERRATTI ROSA	Pacific Bell
	WHITE DAVID	Pacific Bell
1981	ALLEN JAS	Pacific Telephone
	BRANCHE ARTHUR W	Pacific Telephone
	BROWN ROY	Pacific Telephone
	GILES C C	Pacific Telephone
	TAYLOR FRANCES	Pacific Telephone
	TODD BILLY JO	Pacific Telephone
	WALLACE ELMORE	Pacific Telephone
1976	Johnson Michael	Pacific Telephone
	Lattin Alvin	Pacific Telephone
	Mc Daniels Adrian V	Pacific Telephone
	Pettus Rhonda	Pacific Telephone
	Rivers Lillian	Pacific Telephone
	Simpson Denise	Pacific Telephone
1951	La Rue H B	Pacific Telephone & Telegraph Co.
	Martin Jo Ann r	Pacific Telephone & Telegraph Co.
	McIntire Leota	Pacific Telephone & Telegraph Co.
	Menlo Edgepark Apts	Pacific Telephone & Telegraph Co.
	S Menlo Houpt Chas r	Pacific Telephone & Telegraph Co.
	Wilson Fern M	Pacific Telephone & Telegraph Co.
1942	ANDERSON Ethel slswn	Los Angeles Directory Co.
	Edge Park Apartments	Los Angeles Directory Co.
	Eichblatt Freda E compt opr Hoffman Hdw Co	Los Angeles Directory Co.
	Eveleth Jerry clk Armour & Co	Los Angeles Directory Co.
	MUELLER Frances S mgr Edge Park Apts	Los Angeles Directory Co.
	NEFF Mary L clk	Los Angeles Directory Co.
	TAYLOR Lyda B Mrs	Los Angeles Directory Co.
	Vinson John O sec Fey & Krause Inc	Los Angeles Directory Co.
1937	Alston A D	Los Angeles Directory Co.
	BARR Helen	Los Angeles Directory Co.
	BEEMAN Anne sten Loyd Wright	Los Angeles Directory Co.
	BEEMAN David H	Los Angeles Directory Co.
	BENJAMIN Robt	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	BENNETT Lawrence	Los Angeles Directory Co.
	BERNSTEIN Harry	Los Angeles Directory Co.
	BERNSTEIN Saul emp Barker Bros	Los Angeles Directory Co.
	BERRYMAN Marshall slsmn Armacost & Royston	Los Angeles Directory Co.
	CARPENTER Edith A	Los Angeles Directory Co.
	COOK Esther	Los Angeles Directory Co.
	Echevaria Robt	Los Angeles Directory Co.
	Edgepark Apartments	Los Angeles Directory Co.
	Gardner J D	Los Angeles Directory Co.
	Gibson John	Los Angeles Directory Co.
	GORDON Wm	Los Angeles Directory Co.
	Hanawalt Irene	Los Angeles Directory Co.
	HARMON Edw	Los Angeles Directory Co.
	Hartigan Margt	Los Angeles Directory Co.
	HOUSTON Eliz	Los Angeles Directory Co.
	HOWE Howard B	Los Angeles Directory Co.
	Hrabetin Frank S	Los Angeles Directory Co.
	Hudelson Clara Mrs	Los Angeles Directory Co.
	Hughey Irene Mrs mgr Edgepark Apartments	Los Angeles Directory Co.
	Hunter Chas	Los Angeles Directory Co.
	Jadrnicek Aldo C clk	Los Angeles Directory Co.
	Janks Vivian bkpr Crystal Clnrs & Dyers	Los Angeles Directory Co.
	JORDAN Elwood Madeline	Los Angeles Directory Co.
	JORDAN Jas E clk	Los Angeles Directory Co.
	JORDAN Madelon personnel Western State Gro Co	Los Angeles Directory Co.
	Kennerd Edith	Los Angeles Directory Co.
	LUCAS John W	Los Angeles Directory Co.
	LUCAS Rose L clk	Los Angeles Directory Co.
	Maxine Chas millmn	Los Angeles Directory Co.
	Moshier Jas	Los Angeles Directory Co.
	Norelius Edw	Los Angeles Directory Co.
	PARKER Lucille	Los Angeles Directory Co.
	PECK Louise	Los Angeles Directory Co.
	PERRY Louis	Los Angeles Directory Co.
	Pharmon Jos	Los Angeles Directory Co.
	RICHMOND Ralph clk	Los Angeles Directory Co.
	RICHMOND Raymond	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Sasser Margt waiter	Los Angeles Directory Co.
	Smale Kenneth	Los Angeles Directory Co.
	STEVENS Andw B Patricia slsmn Glenn W Bradshaw	Los Angeles Directory Co.
	STEVENS Miriam S clk	Los Angeles Directory Co.
	WATTERSON Effie	Los Angeles Directory Co.
	WHEELER Wm	Los Angeles Directory Co.
	WYNN Grace	Los Angeles Directory Co.
	Youst A P	Los Angeles Directory Co.
1933	BOWMAN Harry P Muriel Bowman George Motors	Los Angeles Directory Co.
	Bremer John W Alice C supvr Juvenile Hall	Los Angeles Directory Co.
	Corkhill May Mrs	Los Angeles Directory Co.
	Edgepark Apartments	Los Angeles Directory Co.
	ELLSWORTH P L slsmn	Los Angeles Directory Co.
	ELLSWORTH Percival L slsmn Morris P Kirk & Son	Los Angeles Directory Co.
	GARDNER Isabel Mrs	Los Angeles Directory Co.
	MATTHEWS Gertrude A sten	Los Angeles Directory Co.
	MCKINNEY W R	Los Angeles Directory Co.
	MOORE Daisy Mrs	Los Angeles Directory Co.
	Riessen Bernice clk	Los Angeles Directory Co.
	Riessen Herbt auto mech	Los Angeles Directory Co.
	SHIELDS slsmn	Los Angeles Directory Co.
	STANLEY Allen Mabel jan	Los Angeles Directory Co.
	STARR Margt sec girl reserve YWCA	Los Angeles Directory Co.
	STARR Rebecca	Los Angeles Directory Co.
	Zumbrun Elsie A	Los Angeles Directory Co.
1929	Arbo Adele Mrs	Los Angeles Directory Co.
	Backer Patricia	Los Angeles Directory Co.
	BARNES Bert E Edith adv	Los Angeles Directory Co.
	BURNS Rollo D apts	Los Angeles Directory Co.
	DAY Arth R slsmn Shell Co	Los Angeles Directory Co.
	Drongeson Ruth with Cal Lutheran Hosp	Los Angeles Directory Co.
	Edgepark Apartments	Los Angeles Directory Co.
	Knab Thelma M underwriter	Los Angeles Directory Co.
	Mac KAY Kath	Los Angeles Directory Co.
	Maguire Betty	Los Angeles Directory Co.
	Mc COLLUM Jas M police	Los Angeles Directory Co.
	Mc Keehan Earl P mgr C L Duncan Co	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	Mc KINNEY Robt W Regent Theatre	Los Angeles Directory Co.
	MEAD Vivienne	Los Angeles Directory Co.
	Okey R M Mrs	Los Angeles Directory Co.
	REIDER Harry r	Los Angeles Directory Co.
	REIDER Leonard h	Los Angeles Directory Co.
	SCHROEDER Frank A h	Los Angeles Directory Co.
	SMITH Mabel L h	Los Angeles Directory Co.
	SNYDER D R clk h	Los Angeles Directory Co.
	SNYDER Gladys exec sec Harbor Dept r	Los Angeles Directory Co.
	SNYDER Grace B sten r	Los Angeles Directory Co.
	SNYDER Wm r	Los Angeles Directory Co.
	Velter Victor engine mech r	Los Angeles Directory Co.
	Vetter Clara M bkpr Hallenscheid & Mc Donald r	Los Angeles Directory Co.
	VETTER Victor V h	Los Angeles Directory Co.
	WALKER Barney L Ruby slsmn Wilson Co r	Los Angeles Directory Co.
	WARDELL Amelia E sten h	Los Angeles Directory Co.
	WILEY Forrest M Peggy h	Los Angeles Directory Co.
	WOODS C B Celeste r	Los Angeles Directory Co.

3981 Menlo Avenue

Year	Uses	Source
1986	ALBA SALVADOR	Pacific Bell
	ARMENDAREZ CONSUELO	Pacific Bell
	BECERRA MARIA	Pacific Bell
	BOLIVAR MARIA T	Pacific Bell
	GOMEZ SYLVIA	Pacific Bell
	JARAMILLO MERCEDES	Pacific Bell
	PEREZ JUAN	Pacific Bell
	RAMOS AIDA	Pacific Bell
	SANCHEZ ANNE	Pacific Bell
1981	ARAIZA JOSE	Pacific Telephone
	BONAC JOSE F	Pacific Telephone
	CANTU LUIS	Pacific Telephone
	CANTU UBILLIBALDO G	Pacific Telephone
	CHAGOLLAN ODULIA	Pacific Telephone
	DELGADO BERTHA G	Pacific Telephone
	ESTRADA CONCEPCION	Pacific Telephone
	GOMEZ JOSE P	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	GONZALES ATILIO PEREL	Pacific Telephone
	GONZALEZ ATTLIO P	Pacific Telephone
	GONZALEZ PEDRO P	Pacific Telephone
	GRAHAM ELMER	Pacific Telephone
	HERNANDEZ EVARISTO	Pacific Telephone
	LARIS FELIPE NUNEZ	Pacific Telephone
	LOPEZ FRANCISCO J	Pacific Telephone
	MENJIVAR RUBEN	Pacific Telephone
	MIJARES JOSE SANTOS	Pacific Telephone
	MIRANDA CONRADINO	Pacific Telephone
	OCHOA MIGUEL	Pacific Telephone
	PEREL LETICIA	Pacific Telephone
	PRADO MANUEL ZAMORA	Pacific Telephone
	RAMIREZ JESUS	Pacific Telephone
	ROMAN JESUS	Pacific Telephone
	ROSA	Pacific Telephone
	SOLIZ ELVIRA	Pacific Telephone
	SOTO GAUDENCIA C	Pacific Telephone
	VELAZQUEZ MANUEL	Pacific Telephone
	ZAMORA ARTURO	Pacific Telephone
1976	Baker Ricardo	Pacific Telephone
	Castillo Vilma	Pacific Telephone
	Clark Margaret	Pacific Telephone
	Lovet Mildred	Pacific Telephone
	Mimms Melvin	Pacific Telephone
	Parker Sie	Pacific Telephone
	Porter Charmian	Pacific Telephone
	Walters Bettye	Pacific Telephone
1951	A Yearsley Ethel	Pacific Telephone & Telegraph Co.
	Anderson A Clark r	Pacific Telephone & Telegraph Co.
	Aronson Louis r	Pacific Telephone & Telegraph Co.
	Corty Alice G Mrs	Pacific Telephone & Telegraph Co.
	Doan Claudia E	Pacific Telephone & Telegraph Co.
	Doktorich J F r	Pacific Telephone & Telegraph Co.
	Duane Chas F r	Pacific Telephone & Telegraph Co.
	Evans Robt K	Pacific Telephone & Telegraph Co.
	Frank Colista r	Pacific Telephone & Telegraph Co.
	Gabriel Howard S r	Pacific Telephone & Telegraph Co.

FINDINGS

Year	Uses	Source
1951	Hardie Alice	Pacific Telephone & Telegraph Co.
	Menlo Av El Portal Apt Hotel	Pacific Telephone & Telegraph Co.
	Moore Thos H r	Pacific Telephone & Telegraph Co.
	Myhre Henry r	Pacific Telephone & Telegraph Co.
	Nelson Geo R	Pacific Telephone & Telegraph Co.
	OCampos S J r	Pacific Telephone & Telegraph Co.
	S Menlo Higginbotham Robt S Jr r	Pacific Telephone & Telegraph Co.
	Schlatter Geneva r	Pacific Telephone & Telegraph Co.
	Seymour E H r	Pacific Telephone & Telegraph Co.
	Snyder Leonard S r	Pacific Telephone & Telegraph Co.
	Sotelo Salvador A	Pacific Telephone & Telegraph Co.
	Tischhauser Katherine r	Pacific Telephone & Telegraph Co.
	Working C F r	Pacific Telephone & Telegraph Co.
1942	Blackman Mary L clk Golding Bros Inc	Los Angeles Directory Co.
	CAMP Ortho O ptrnmkr	Los Angeles Directory Co.
	Corbin Clara Mrs mgr El Portal Apts	Los Angeles Directory Co.
	Corson Gwendolyn L tchr Pub Sch	Los Angeles Directory Co.
	FRY Geo W autos	Los Angeles Directory Co.
	GILMORE John O crmrywkr	Los Angeles Directory Co.
	JACKSON Eleanor M tel opr	Los Angeles Directory Co.
	JOHNSON Erma E sten UOCo	Los Angeles Directory Co.
	Kent Arth R clk	Los Angeles Directory Co.
	LANE Albt L clk	Los Angeles Directory Co.
	LONG Kay sten Parker & Stanbury	Los Angeles Directory Co.
	Mc Elroy Ferne R sten R H Alber	Los Angeles Directory Co.
	Mills Alice T tchr Pub Sch	Los Angeles Directory Co.
	NOBLE Prather L Pearl mgr Eureka Freight Lines	Los Angeles Directory Co.
	OLSEN Hanford T slsmn SCTCo	Los Angeles Directory Co.
	PEDERSEN Ellen bkpr Inglewood Park Cemetery Assn	Los Angeles Directory Co.
	PEDERSEN Peder R clk	Los Angeles Directory Co.
	PEDERSEN Theo clk	Los Angeles Directory Co.
	Pinnick Jos A asst supvr atdt Pub Sch	Los Angeles Directory Co.
	Poe Alice sten Wm L Barrell Co	Los Angeles Directory Co.
	RABE Susan J sten Santa Fe Land Improvement Co	Los Angeles Directory Co.
	Ray Erma L ofc sec L L Schaumer	Los Angeles Directory Co.
	RHOADES Florence nurse CHD	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Towers Marjorie E bkpr Lawrence Phillips Lbr Co	Los Angeles Directory Co.
	WESCOTT May priv sec Westinghouse Elec Elev Co	Los Angeles Directory Co.
1937	Andrada Charlotte sten CNT & S Bank	Los Angeles Directory Co.
	BARRETT Vera sten J E Babcock	Los Angeles Directory Co.
	BECKER Mary A clk County Charities	Los Angeles Directory Co.
	BENNETT S E Mrs	Los Angeles Directory Co.
	Bonner Herbt D dist dir County Charities	Los Angeles Directory Co.
	Byrne Clara J Mrs beauty shop	Los Angeles Directory Co.
	Corbin Clara wid W A mgr El Portal Apts	Los Angeles Directory Co.
	Corbin Kath sten	Los Angeles Directory Co.
	CORSON Gwendolyn L tchr City Sch	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	EMERSON Virginia	Los Angeles Directory Co.
	Hedden Minor L slsmn Reiman Whol Elec Co	Los Angeles Directory Co.
	HILL John A clk	Los Angeles Directory Co.
	HIRSCH Hilda sten Angelus Paper Box Co	Los Angeles Directory Co.
	HOLDER Marvin D producer Pac Finance Corp	Los Angeles Directory Co.
	Holtfrerich Geo F Rachel tchr City Sch	Los Angeles Directory Co.
	Littler Loren D Pearl pres Fire Appliances Inc	Los Angeles Directory Co.
	Maxwell Evelyn bkpr Safeway Stores	Los Angeles Directory Co.
	Mills Alice T Mrs tchr City Sch	Los Angeles Directory Co.
	MORGAN John C electn	Los Angeles Directory Co.
	Muzze Mary A compt opr	Los Angeles Directory Co.
	Panczak Maret sten Western Enterprise Engine Co	Los Angeles Directory Co.
	RUSSELL Mary E slswn	Los Angeles Directory Co.
	SANDERS R H	Los Angeles Directory Co.
	SLOAN Garnet E slswn	Los Angeles Directory Co.
	Towers Marjorie E sec Lawrence Phillips Lbr Co	Los Angeles Directory Co.
	Working C F	Los Angeles Directory Co.
	Wright Hay Adelaide tchr City Sch	Los Angeles Directory Co.
1933	ADAMS Clarence R	Los Angeles Directory Co.
	ALLEN Charline waiter	Los Angeles Directory Co.
	ALLEN Edw housemn	Los Angeles Directory Co.
	ALLEN Jean nurse	Los Angeles Directory Co.
	ALLEN Winifred sten	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	Asling Edw cook	Los Angeles Directory Co.
	Badgley Virginia H tel opr	Los Angeles Directory Co.
	BARRETT Marie clk	Los Angeles Directory Co.
	BARRETT Vera sten	Los Angeles Directory Co.
	BARROWS Ruth clk Co Sealer of Weights & Measures	Los Angeles Directory Co.
	BECK Lenora sten	Los Angeles Directory Co.
	Becker Amelia	Los Angeles Directory Co.
	BECKER Regina lndywkr	Los Angeles Directory Co.
	BERGE Byron	Los Angeles Directory Co.
	Bithel Fred cik	Los Angeles Directory Co.
	Bithel Warren	Los Angeles Directory Co.
	Blythe Frank slsmn	Los Angeles Directory Co.
	Byrne Clara J Mrs beauty shop	Los Angeles Directory Co.
	Cavell Korine techn asst USC	Los Angeles Directory Co.
	Converse Helen nurse	Los Angeles Directory Co.
	Cousins C J Violet	Los Angeles Directory Co.
	Covell M H Mrs	Los Angeles Directory Co.
	COX Herman slsmn	Los Angeles Directory Co.
	CROCKER Helen sten	Los Angeles Directory Co.
	DAVIS F sten	Los Angeles Directory Co.
	Dies Wayne L Helen clk	Los Angeles Directory Co.
	EAGAN Kath sten	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	Emmett Chas A sergt USA instr State Natl Guard	Los Angeles Directory Co.
	Evans Thelma clk	Los Angeles Directory Co.
	Ficklin E C	Los Angeles Directory Co.
	GILMORE John O crmrywkr	Los Angeles Directory Co.
	HARBERT Gertrude Mrs	Los Angeles Directory Co.
	HARBERT Lloyd C oil well supp	Los Angeles Directory Co.
	HENRY Ruth marcellor	Los Angeles Directory Co.
	HOOD Margt sten	Los Angeles Directory Co.
	JONES Vernon E Ruth	Los Angeles Directory Co.
	Kesterson Thelma sten	Los Angeles Directory Co.
	KING Edw S	Los Angeles Directory Co.
	KING Fred W	Los Angeles Directory Co.
	Kottnauer Edw slsmn	Los Angeles Directory Co.
	LEWIS S R	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	LIBERMAN E L	Los Angeles Directory Co.
	Martin Edith Mrs	Los Angeles Directory Co.
	Martinetti Ruby E Mrs tchr City Schs	Los Angeles Directory Co.
	MAXWELL Evelyn bkpr Safeway Stores	Los Angeles Directory Co.
	MC COY Ralph G Denise barber	Los Angeles Directory Co.
	Mc ROBERTS Eliz tchr	Los Angeles Directory Co.
	MCBRIDE Helen sten	Los Angeles Directory Co.
	Miller Alice clk	Los Angeles Directory Co.
	Moberg Ralph Ethel	Los Angeles Directory Co.
	MOSHIER Peggy E sten	Los Angeles Directory Co.
	Nashke Wm E meat ctr	Los Angeles Directory Co.
	NELSON Edw Matilda slsmn	Los Angeles Directory Co.
	OBRIEN Harriet	Los Angeles Directory Co.
	Overboy W J tel opr	Los Angeles Directory Co.
	PENDERGAST W F	Los Angeles Directory Co.
	PHILLIPS Pauline T tel opr	Los Angeles Directory Co.
	PRENDERGAST Wm F Pearl emp Moreland Sales Corp	Los Angeles Directory Co.
	RANKIN Mildred beauty opr	Los Angeles Directory Co.
	RAYMOND Richd E pharm	Los Angeles Directory Co.
	RUSSELL Florence sten	Los Angeles Directory Co.
	Russill Florence H asst sec Thompson Mfg Co	Los Angeles Directory Co.
	Sacharsky Cecile waiter	Los Angeles Directory Co.
	SMITH Amelia sten	Los Angeles Directory Co.
	SMITH Sidney J	Los Angeles Directory Co.
	Spleen Jerry Ida	Los Angeles Directory Co.
	Storace Helen Mrs	Los Angeles Directory Co.
	Storace Lenore clk	Los Angeles Directory Co.
	TATE Virginia L clk	Los Angeles Directory Co.
	TAYLOR Wendell H	Los Angeles Directory Co.
	Terrill Louise Mrs	Los Angeles Directory Co.
	THOMSON Scott S pntr	Los Angeles Directory Co.
	Trappe Fred P Marie slsmn Hammond Lbr Co	Los Angeles Directory Co.
	VINCENT Ruth beauty opr	Los Angeles Directory Co.
	WADDELL James	Los Angeles Directory Co.
	WARREN Max	Los Angeles Directory Co.
	WEBB Hazel I sten	Los Angeles Directory Co.
	Whitten Laura Mrs sten	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	WILSON Edgar C	Los Angeles Directory Co.
1929	Anderson H E	Los Angeles Directory Co.
	Bomar D C	Los Angeles Directory Co.
	BOWMAN W H	Los Angeles Directory Co.
	Brinton R G	Los Angeles Directory Co.
	CONNOR Ned	Los Angeles Directory Co.
	Cox Calvin	Los Angeles Directory Co.
	Deil N H	Los Angeles Directory Co.
	Deimer Geo	Los Angeles Directory Co.
	Deitrich J F	Los Angeles Directory Co.
	Duden L	Los Angeles Directory Co.
	El Portal Apartments	Los Angeles Directory Co.
	Fetz Victoria	Los Angeles Directory Co.
	Genett Bernice bkpr Grosvenor Inglis Corp	Los Angeles Directory Co.
	HALL Violet clk	Los Angeles Directory Co.
	Harwood A D	Los Angeles Directory Co.
	Harwood C M	Los Angeles Directory Co.
	HENDERSON E V	Los Angeles Directory Co.
	HERRON E W	Los Angeles Directory Co.
	HOPKINS Ruth	Los Angeles Directory Co.
	HOPKINS W J	Los Angeles Directory Co.
	Jeannette Bernice	Los Angeles Directory Co.
	JOHNSON F B	Los Angeles Directory Co.
	JOHNSON Florence	Los Angeles Directory Co.
	Judge Thos	Los Angeles Directory Co.
	KEELER Mildred	Los Angeles Directory Co.
	LAMBERT W E autowkr	Los Angeles Directory Co.
	LAW Sarah	Los Angeles Directory Co.
	Le Blane Ethel sten	Los Angeles Directory Co.
	LEWIS Mae Mrs drsmkr	Los Angeles Directory Co.
	LOMBARD Kate	Los Angeles Directory Co.
	Margolin Saml J	Los Angeles Directory Co.
	Mauser O B	Los Angeles Directory Co.
	Maxwell Evelyn clk	Los Angeles Directory Co.
	Mc BEAN Carroll W bkpr L H Manning & Co	Los Angeles Directory Co.
	Mc BEAN Ruth P supvr SCTCo	Los Angeles Directory Co.
	MENDEL Harry Sophie barber	Los Angeles Directory Co.
	MURPHY Fred A police	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	Naggart Kath	Los Angeles Directory Co.
	Neilson E M	Los Angeles Directory Co.
	OConnor C A	Los Angeles Directory Co.
	OWENS Myrtle	Los Angeles Directory Co.
	Pyfer Milton J barber r	Los Angeles Directory Co.
	Quinhvian Jas h	Los Angeles Directory Co.
	r	Los Angeles Directory Co.
	Rathman Ruth M slsldy r	Los Angeles Directory Co.
	REYNOLDS M S h	Los Angeles Directory Co.
	RICE M A r	Los Angeles Directory Co.
	ROBEY D Louise sec J Calvin Brown r	Los Angeles Directory Co.
	ROSE T A h	Los Angeles Directory Co.
	Rosenberger Ida M depy Co Recorder r	Los Angeles Directory Co.
	Rothman R M r	Los Angeles Directory Co.
	Sauers Jos F r	Los Angeles Directory Co.
	Sauers Vina apts	Los Angeles Directory Co.
	Showalter Glenna h	Los Angeles Directory Co.
	SMITH Cora h	Los Angeles Directory Co.
	SNYDER S C h	Los Angeles Directory Co.
	Soike Fredk h	Los Angeles Directory Co.
	Soyka Theo V meats	Los Angeles Directory Co.
	Spence Eric r	Los Angeles Directory Co.
	Stillman W h	Los Angeles Directory Co.
	SWANSON W r	Los Angeles Directory Co.
	Trudeau Peter A r	Los Angeles Directory Co.
	WALTERS Doris beauty opr r	Los Angeles Directory Co.
	WALTERS Mills E millmn r	Los Angeles Directory Co.
	WELLING R A r	Los Angeles Directory Co.
	Widner Chas pilot Aero Corp of Cal r	Los Angeles Directory Co.
	WILLIAMS Edith h	Los Angeles Directory Co.
	WILLIAMS H h	Los Angeles Directory Co.
	WILLIAMSON Carlo h	Los Angeles Directory Co.

3987 Menlo Avenue

Year	Uses	Source
1990	ALBA TERESA L	Pacific Bell
	ALVAREZ S	Pacific Bell
	CABALLERO MARIA E	Pacific Bell
	CANTEROS ESTEBON PEREZ	Pacific Bell

FINDINGS

Year	Uses	Source
1990	CONTRERAS EXIQUIO	Pacific Bell
	GARCIA ALMA	Pacific Bell
	HERNANDEZ-CARDONA JOSE LUIS	Pacific Bell
	MARTINEZ HUGO	Pacific Bell
	MARTINEZ J	Pacific Bell
	MIGUEL HECTOR	Pacific Bell
	MIRANDA VICENTE A	Pacific Bell
	NAVAREZ JOSE	Pacific Bell
	SALOME M V	Pacific Bell
1986	ALBA TERESA L	Pacific Bell
	CABALLERO MARIA E	Pacific Bell
	MARQUEZ NICOLAS S	Pacific Bell
	NAVARRETE MARTIN	Pacific Bell
1981	ALBA TEREA L	Pacific Telephone
	AYALA ADELAIDO M	Pacific Telephone
	DIAZ JOSE L	Pacific Telephone
	ECHEVERRIA VIDAL	Pacific Telephone
	ELVIRA OFELIA	Pacific Telephone
	HERNANDEZ JUAN	Pacific Telephone
	LOPEZ MARIA ELENA	Pacific Telephone
	MONTENEGRO MARTIN G	Pacific Telephone
	PEREZ-ANA MARGARITA	Pacific Telephone
	RAMIREZ MARIA A	Pacific Telephone
	RODRIGUEZ JOSE ROBERTO	Pacific Telephone
	SOLIS ISIDRO	Pacific Telephone
	TOBAR ANA	Pacific Telephone
	TRANQUILINO ABEL	Pacific Telephone
1951	Bryant Henry C r	Pacific Telephone & Telegraph Co.
	Dunn Richard E r	Pacific Telephone & Telegraph Co.
	Hendrix M P Mrs r	Pacific Telephone & Telegraph Co.
	Johnson Mary R r	Pacific Telephone & Telegraph Co.
	Menlo	Pacific Telephone & Telegraph Co.
1942	Adams Dorothy L clk	Los Angeles Directory Co.
	Adams Edgar C Clara R carp	Los Angeles Directory Co.
	Adams Virgil C clk	Los Angeles Directory Co.
	BLOCK Jack driver	Los Angeles Directory Co.
	Boomer Edw A clk	Los Angeles Directory Co.
	Caudill Geo bartndr	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	COON Robt C driver	Los Angeles Directory Co.
	EDWARDS Irving bldg contr	Los Angeles Directory Co.
	FOWLER Helen waiter	Los Angeles Directory Co.
	GIBBONS Clifford E clk	Los Angeles Directory Co.
	GIBBONS Edw R May M mgr Parkway Apts	Los Angeles Directory Co.
	GILLMAN Chas E mech	Los Angeles Directory Co.
	GILMAN Ted Evelyn mech	Los Angeles Directory Co.
	HOGAN Roy T driver	Los Angeles Directory Co.
	METZGER Frank W Bertha gas sta	Los Angeles Directory Co.
	Munguia Nellie uphol	Los Angeles Directory Co.
	Parker Lavilla N	Los Angeles Directory Co.
	PARKER Nora B Mrs	Los Angeles Directory Co.
	PARKER Virginia L tmkpr	Los Angeles Directory Co.
	Parkway Apartments	Los Angeles Directory Co.
	PURDY Wm E slsmn	Los Angeles Directory Co.
	RYAN Marcia Mrs clk	Los Angeles Directory Co.
	RYAN Marsha E clk	Los Angeles Directory Co.
	SEARLE Alex E Beatrice clk	Los Angeles Directory Co.
	Serle Alex E clk	Los Angeles Directory Co.
	Stepleton Mabel E Mrs clk	Los Angeles Directory Co.
	Tift Roy H Laura E mech	Los Angeles Directory Co.
	Unholz Carl R Anna M formn Eagle Rock Advertiser	Los Angeles Directory Co.
	WALKER Laurence M tchr Pub Sch	Los Angeles Directory Co.
1937	ADAMS Clive L waiter	Los Angeles Directory Co.
	AHRENS Kath	Los Angeles Directory Co.
	AHRENS Ruth	Los Angeles Directory Co.
	Bicknell Doris	Los Angeles Directory Co.
	Bitali Louis	Los Angeles Directory Co.
	Bulah Chas H utilitymn Barker Bros	Los Angeles Directory Co.
	COLE Isabel K Mrs tchr City Sch	Los Angeles Directory Co.
	DAWSON Florence E	Los Angeles Directory Co.
	De Serano Ethel D	Los Angeles Directory Co.
	Dick J R	Los Angeles Directory Co.
	Elliott Wm Ina carrier PO	Los Angeles Directory Co.
	GORDON Madeline L Mrs tchr City Sch	Los Angeles Directory Co.
	Gruby Robt J Inez E	Los Angeles Directory Co.
	Hyde Mary E	Los Angeles Directory Co.
	Kirby Fama clk	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Koskey Emma factywkr	Los Angeles Directory Co.
	Lank Michl	Los Angeles Directory Co.
	LEE Martin	Los Angeles Directory Co.
	Markey Ella	Los Angeles Directory Co.
	Markey Jean	Los Angeles Directory Co.
	Morgan Clarence	Los Angeles Directory Co.
	MORGAN Wm E dist mgr Evening Herald & Exp	Los Angeles Directory Co.
	Odson Grace slswn	Los Angeles Directory Co.
	PARK Manor Apartments	Los Angeles Directory Co.
	PEARSON Florence	Los Angeles Directory Co.
	Pecks Dorothy	Los Angeles Directory Co.
	Pemberton Viola	Los Angeles Directory Co.
	Perrodil Nelson D	Los Angeles Directory Co.
	Poykka Katie mach opr	Los Angeles Directory Co.
	Pyko Kath	Los Angeles Directory Co.
	RAYMUND Ruby Mrs mgr Park Manor Apts	Los Angeles Directory Co.
	Rye Lois M sten C W Ritter Co	Los Angeles Directory Co.
	Standerfer Wm E crmrywkr	Los Angeles Directory Co.
	SWANSON Mary Mrs	Los Angeles Directory Co.
	Tombs S B Miss	Los Angeles Directory Co.
	Wasgate A B	Los Angeles Directory Co.
	Wengenroth Fredk W Alice	Los Angeles Directory Co.
	WILDE Irene Mrs	Los Angeles Directory Co.
	WISE Jas chainmn Met Water Dist	Los Angeles Directory Co.
	WOOD Dorothy	Los Angeles Directory Co.
	WOOD Ruth sten	Los Angeles Directory Co.
	Yont Mary Mrs	Los Angeles Directory Co.
1933	BAUMAN Philip	Los Angeles Directory Co.
	BROWN Clem bkpr	Los Angeles Directory Co.
	BURG Edw	Los Angeles Directory Co.
	BURNEY Charlotte E clk	Los Angeles Directory Co.
	CAIN Jas	Los Angeles Directory Co.
	Coles Ellery pntr	Los Angeles Directory Co.
	Coles Jerry beauty opr	Los Angeles Directory Co.
	Ely Leland S	Los Angeles Directory Co.
	Erie Apartments	Los Angeles Directory Co.
	FALCONER Edw Myrtle	Los Angeles Directory Co.
	Garrett Bert P Mrs mgr Erie Apts	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	GARRETT Shirle I	Los Angeles Directory Co.
	GIBBONS Violet Mrs bkpr	Los Angeles Directory Co.
	Helms Wm P Emma M gdnr Park Dept	Los Angeles Directory Co.
	Hilden Louise X ray techn Cal Hosp	Los Angeles Directory Co.
	Krodell Geo slsmn	Los Angeles Directory Co.
	LEE Harry W	Los Angeles Directory Co.
	MAHER Geo A	Los Angeles Directory Co.
	MAY Newton	Los Angeles Directory Co.
	Parks Merle D tchr City Schs	Los Angeles Directory Co.
	PAYNE Dewey slsmn W F Blackburn	Los Angeles Directory Co.
	Reger Quentin slsmn	Los Angeles Directory Co.
	ROBERTSON Fred slsmn	Los Angeles Directory Co.
	Sealey Harry Rose slsmn	Los Angeles Directory Co.
	Sealey Rose Mrs asst mgr Erie Apts	Los Angeles Directory Co.
	Shappel Saml	Los Angeles Directory Co.
	TRADE Irene weaver	Los Angeles Directory Co.
	TRADE Ruth weaver	Los Angeles Directory Co.
1929	BEARD Sanford L Jessie I electn	Los Angeles Directory Co.
	Bellamy Eli	Los Angeles Directory Co.
	BOLINGER Russell	Los Angeles Directory Co.
	CARTER Coolidge	Los Angeles Directory Co.
	CHAMBERS Le Roy jan	Los Angeles Directory Co.
	COOPER Laduska A wid John	Los Angeles Directory Co.
	Erie Apartments	Los Angeles Directory Co.
	Evenson Ernest H prsfdr	Los Angeles Directory Co.
	FISHER Albt slsmn	Los Angeles Directory Co.
	Fosburgh Gale R prsfdr	Los Angeles Directory Co.
	FREDRICKS Chas	Los Angeles Directory Co.
	GARRETT Bert P apts	Los Angeles Directory Co.
	GARRETT Shirle	Los Angeles Directory Co.
	GROSSMAN Henry	Los Angeles Directory Co.
	Hackler John	Los Angeles Directory Co.
	HILL Mary C slsdy	Los Angeles Directory Co.
	HOUSE Edgar L slsmn Union Oil Co	Los Angeles Directory Co.
	Iden Wm A Anna mgr Kerr Rug Mfg Co	Los Angeles Directory Co.
	Kargus Stanley Lydia	Los Angeles Directory Co.
	Kumlar John	Los Angeles Directory Co.
	Lawless John C Isabelle	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	Levi Robt	Los Angeles Directory Co.
	Mac DONELL Alena sten	Los Angeles Directory Co.
	Maggerelle Mae	Los Angeles Directory Co.
	Mc DONELL Alena sten	Los Angeles Directory Co.
	Mc LEAN Hugh D bkpr Sears Roebuck & Co	Los Angeles Directory Co.
	MORSE M B	Los Angeles Directory Co.
	NELSON Norman E and Sears Roebuck & Co	Los Angeles Directory Co.
	OSBURN M D	Los Angeles Directory Co.
	PETERSON Geo	Los Angeles Directory Co.
	Petty Donald	Los Angeles Directory Co.
	Schwanzara Chas decorator h	Los Angeles Directory Co.
	SHEARER Ruth h	Los Angeles Directory Co.
	SIMPSON Lee r	Los Angeles Directory Co.
	SMITH Bruce r	Los Angeles Directory Co.
	TEMPLE Clyde auto mech h	Los Angeles Directory Co.
	Truesdale Richd h	Los Angeles Directory Co.
	Truesdell Richd S Gathin & Truesdell h	Los Angeles Directory Co.
	Weadock Alice phone opr h	Los Angeles Directory Co.
	Youngberg Fannie wid Andw h	Los Angeles Directory Co.

3991 Menlo Avenue

Year	Uses	Source
1951	Menlo Carr Opal r	Pacific Telephone & Telegraph Co.
	Menlo Vicars Betty r	Pacific Telephone & Telegraph Co.
	Menlo Watson Ellen Mrs r	Pacific Telephone & Telegraph Co.
	S Menlo Av Rhodes Anna M r	Pacific Telephone & Telegraph Co.
1942	Bradshaw Madeline clk	Los Angeles Directory Co.
	Hansler Albt G Grita	Los Angeles Directory Co.
	Huston Marion J Alice	Los Angeles Directory Co.
	Morain Lorey Marie fctywkr	Los Angeles Directory Co.
	SIMS Morris L Joann electn	Los Angeles Directory Co.
	WATSON Allen J tchr Pub Sch	Los Angeles Directory Co.
	WATSON Elene Mrs	Los Angeles Directory Co.
1929	JOHNSON Orris Mrs	Los Angeles Directory Co.

34981 Menlo Avenue

Year	Uses	Source

S VERMONT AVE

3990 S VERMONT AVE

Year	Uses	Source
1990	MR ED S PHARMACY	Pacific Bell
1986	MR ED S PHARMACY	Pacific Bell
1937	PEOPLES OUTFITTING CO Geo B Seeberg Pres Robt T Seeberg Sec Treas Complete Home Furnishers The Peoples Way Mekes It Easy to Pay	Los Angeles Directory Co.
1933	PEOPLES OUTFITTING CO Geo B Seeberg Pres Henry M Seeberg V Pres Robt T Seeberg Sec Treas Complete Home Furnishers The Peoples Way Makes It Easy to Pay	Los Angeles Directory Co.
1929	PEOPLES OUTFITTING CO Suse Seeberg Pres Geo B Seeberg V Pres Robt T Seeberg Sec Henry M Seeberg Treas Complete Home Furnishers Its Easy to Pay the Peoples Way	Los Angeles Directory Co.

S Vermont Avenue

3990 S Vermont Avenue

Year	Uses	Source
1990	MR ED S PHARMACY	Pacific Bell
1986	MR ED S PHARMACY	Pacific Bell
1951	S Vermnt Av People Outfitting Co furn	Pacific Telephone & Telegraph Co.
	S Vermnt Av Peoples Outfitting Co furn	Pacific Telephone & Telegraph Co.
1937	PEOPLES OUTFITTING CO Geo B Seeberg Pres Robt T Seeberg Sec Treas Complete Home Furnishers The Peoples Way Mekes It Easy to Pay	Los Angeles Directory Co.
1933	PEOPLES OUTFITTING CO Geo B Seeberg Pres Henry M Seeberg V Pres Robt T Seeberg Sec Treas Complete Home Furnishers The Peoples Way Makes It Easy to Pay	Los Angeles Directory Co.
1929	PEOPLES OUTFITTING CO Suse Seeberg Pres Geo B Seeberg V Pres Robt T Seeberg Sec Henry M Seeberg Treas Complete Home Furnishers Its Easy to Pay the Peoples Way	Los Angeles Directory Co.

VERMONT AVE S

3990 VERMONT AVE S

Year	Uses	Source
1951	S Vermnt Av People Outfitting Co furn	Pacific Telephone & Telegraph Co.
	S Vermnt Av Peoples Outfitting Co furn	Pacific Telephone & Telegraph Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BROWNING BLVD

1000 BROWNING BLVD

Year	Uses	Source
1933	WINNETT Louis W used autos	Los Angeles Directory Co.
1924	h	Los Angeles Directory Co.

1005 BROWNING BLVD

Year	Uses	Source
1929	CORNELL Cravens G Cath clk MNT & S Bank	Los Angeles Directory Co.

MENLO AVE

3966 MENLO AVE

Year	Uses	Source
2000	XXXX	Haines & Company
1976	Lou Costello Jr Recreation Center	Pacific Telephone
	Swimming Pools Los Angeles Swim Stadium	Pacific Telephone
	RECREATION & PARKS Aquatics Div	Pacific Telephone
	LIBRARY DEPT Wilshire Br	Pacific Telephone

3969 MENLO AVE

Year	Uses	Source
1933	Bowser Rose Mrs confy	Los Angeles Directory Co.
	Bowser Theo J Rose slsmn L A Biscuit Co	Los Angeles Directory Co.
1924	Mulligan Ferd sergt police r	Los Angeles Directory Co.
	Mulligan Gertrude Mrs confr	Los Angeles Directory Co.

3970 MENLO AVE

Year	Uses	Source
2000	LA CTY REC & PKS MUNICIPAL SPRTS	Haines & Company
1976	Lou Costello Jr Recreation Center	Pacific Telephone
	South Dist Ofc	Pacific Telephone
1933	LOS ANGELES Swimming Stadium	Los Angeles Directory Co.

FINDINGS

3973 MENLO AVE

Year	Uses	Source
1942	WALKER Marvin R lab City Eng	Los Angeles Directory Co.
1937	Schmeideman Hannah Mrs	Los Angeles Directory Co.
	Walker Marvin H lab City Eng	Los Angeles Directory Co.
	Walker Mary Mrs	Los Angeles Directory Co.
1933	GILLASPIE Ai Grace M slsmn Manual Arts Sales Corp	Los Angeles Directory Co.
	GILLASPIE Grace N bkpr G W Fry	Los Angeles Directory Co.
1929	BECK Jacob	Los Angeles Directory Co.
	Hoard Bessie	Los Angeles Directory Co.
	MARTIN Angie M mach opr	Los Angeles Directory Co.
1924	Mc KEE Susana h	Los Angeles Directory Co.
	h	Los Angeles Directory Co.

3975 MENLO AVE

Year	Uses	Source
1942	Scheck Leonard C Fern clk	Los Angeles Directory Co.
	Pavey Emma wid I N	Los Angeles Directory Co.
	Pavey Clara wid J N	Los Angeles Directory Co.
1937	PIERCE Eliz	Los Angeles Directory Co.
	ROSE Edna K tchr Mac Kay Business College	Los Angeles Directory Co.
	Copp Ralph	Los Angeles Directory Co.
	FAULKNER Frances Mrs	Los Angeles Directory Co.
1933	COPP Ralph W Pearl auto mech	Los Angeles Directory Co.
1929	Owen Addie	Los Angeles Directory Co.
1924	CARTER Marion R pipeftr h	Los Angeles Directory Co.
	CARTER Ray M mech h	Los Angeles Directory Co.
	SMITH Omar L h	Los Angeles Directory Co.

3976 MENLO AVE

Year	Uses	Source
1929	SMITH Omar L Annie baker h	Los Angeles Directory Co.

3978 MENLO AVE

Year	Uses	Source
1942	Ham Thos D Nora E mech	Los Angeles Directory Co.

FINDINGS

3980 MENLO AVE

Year	Uses	Source
2013	KIDS IN SPORTS	Cole Information Services
2008	KIDS IN SPORTS	Cole Information Services
2006	K 61 S IN SPORTS	Haines Company, Inc
2000	LA CTY REC & PKS POOL SWIM STDM	Haines & Company
1951	Menlo Av Los Angeles City of recreation and parks Aquatics Div	Pacific Telephone & Telegraph Co.
1942	Los Angeles Swiming Stadium	Los Angeles Directory Co.

3985 MENLO AVE

Year	Uses	Source
1929	Kringle Marguerite sten	Los Angeles Directory Co.

3988 MENLO AVE

Year	Uses	Source
1924	ARMSTRONG David G exp	Los Angeles Directory Co.

3990 MENLO AVE

Year	Uses	Source
2008	EXPOSITION CLUB HOUSE	Cole Information Services
2000	KIDS IN SPORTS	Haines & Company
	R B I	Haines & Company
1976	RECREATION & PARKS Exposition Training Center	Pacific Telephone
	LIBRARY DEPT Wilshire Br	Pacific Telephone
1967	Exposition Community House	Pacific Telephone
	Los Angeles City of RECREATION & PARKS	Pacific Telephone
1958	LOS ANGELES CITY OF RECREATION & PARKS	Pacific Telephone
	Exposition Community House	Pacific Telephone
1951	Menlo Av Los Angeles City of recreation & parks Exposition Community House	Pacific Telephone & Telegraph Co.
1942	Exposition	Los Angeles Directory Co.
	Exposition Club House	Los Angeles Directory Co.
1937	Santa Rosa Court	Los Angeles Directory Co.
	Exposition Handicraft	Los Angeles Directory Co.
	Exposition Club House	Los Angeles Directory Co.
	Los Angeaes Swimming Stadium	Los Angeles Directory Co.
1933	Exposition Community Building	Los Angeles Directory Co.
	Olympic	Los Angeles Directory Co.

FINDINGS

3993 MENLO AVE

Year	Uses	Source
1986	MENJUVAR OVIDIO	Pacific Bell
1981	MENKIVAR OVIDIO	Pacific Telephone
1976	Silva Romana	Pacific Telephone
1951	Menlo Andreasen A H Jr r	Pacific Telephone & Telegraph Co.
	Menlo Gibbs Frank M r	Pacific Telephone & Telegraph Co.
1942	Mayfield Josephine H	Los Angeles Directory Co.
	SHEPPARD Chas L Hilda driver	Los Angeles Directory Co.
	Kranz Ellen E waiter	Los Angeles Directory Co.
	Andreason Andw fctywkr	Los Angeles Directory Co.
1937	WATSON Minnie	Los Angeles Directory Co.
	RUSSELL Howard W garmt ctr	Los Angeles Directory Co.
	Patin Therese wid Maurice	Los Angeles Directory Co.
	KAUFMAN Ruth clk	Los Angeles Directory Co.
	Dessimone Leonardo	Los Angeles Directory Co.
1933	THOMAS Ida Mrs beauty opr	Los Angeles Directory Co.
1929	Wingard Glenn A clk LA FNT & S Bank r	Los Angeles Directory Co.
	Wingard Eugene r	Los Angeles Directory Co.
	Mc CORMICK Glen	Los Angeles Directory Co.
	Larsh Wayne	Los Angeles Directory Co.
	Larsh Wayne	Los Angeles Directory Co.
	Larsh Lillian I	Los Angeles Directory Co.
	Larsh Delbert L	Los Angeles Directory Co.
	FLYNN Viola	Los Angeles Directory Co.
	BAILEY Alice	Los Angeles Directory Co.

3994 MENLO AVE

Year	Uses	Source
1937	JONES David V Bridget M Santa Rosa Court	Los Angeles Directory Co.

3995 MENLO AVE

Year	Uses	Source
2000	XXXX	Haines & Company
1976	Martinez Alfredo	Pacific Telephone
1951	Menlo Hale Guy Mrs r	Pacific Telephone & Telegraph Co.
	Menlo Av Bush Robt J r	Pacific Telephone & Telegraph Co.
	Menlo Churchman Carolyn r	Pacific Telephone & Telegraph Co.
1942	Van Horn Charlotte Mrs	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	ROSE Maryann clk Pub Library	Los Angeles Directory Co.
	Maliner Victor Mary V	Los Angeles Directory Co.
	HALE Guy Nell gndr	Los Angeles Directory Co.
	GRAHAM Hazel Mrs fctywkr	Los Angeles Directory Co.
	Canaban Eunice	Los Angeles Directory Co.
1937	Schlosser J Philip	Los Angeles Directory Co.
	Schlosser Claire P Alma F slsmn May Co	Los Angeles Directory Co.
	DIXON Albt	Los Angeles Directory Co.
	BURCH Chas F slsmn D S Bread Co	Los Angeles Directory Co.
	BRANDT Hilda L sten Am Lndy Machy Co	Los Angeles Directory Co.
	BRANDT Wm	Los Angeles Directory Co.
1933	Wingo Edith M	Los Angeles Directory Co.
	Reamer Kenneth B Lois P	Los Angeles Directory Co.
	MONTGOMERY Chas slsmn	Los Angeles Directory Co.
	Hutto Jos A Eliz A	Los Angeles Directory Co.
	Hutto Betty sten	Los Angeles Directory Co.
1929	Zorn Roy h	Los Angeles Directory Co.
	TANNER Wm W r	Los Angeles Directory Co.
	MURRAY Jane nurse	Los Angeles Directory Co.
	Hanback J F	Los Angeles Directory Co.

3991 1/2 MENLO AVE

Year	Uses	Source
1990	IBARRA PAULINA	Pacific Bell

3991 3/4 MENLO AVE

Year	Uses	Source
1990	RIVERA BACILIZA	Pacific Bell

3993 1/4 MENLO AVE

Year	Uses	Source
1990	GARCIA MARIA LUISA	Pacific Bell

3993 3/4 MENLO AVE

Year	Uses	Source
1981	FALCON SALVADOR	Pacific Telephone

3995 1/4 MENLO AVE

Year	Uses	Source
1986	CASTILLO MARCELENO C	Pacific Bell

FINDINGS

S VERMONT AV R TORRANCE

3973 S VERMONT AV R TORRANCE

Year	Uses	Source
1933	OVERTON Jas H sec treas Hollywood Riviera Bldg Assn and real est	Los Angeles Directory Co.

S VERMONT AV USED CARS

3972 S VERMONT AV USED CARS

Year	Uses	Source
1942	FRY Geo W autos	Los Angeles Directory Co.

S VERMONT AVE

3955 S VERMONT AVE

Year	Uses	Source
1967	Varnado Bessie Lee	Pacific Telephone
1958	Furler Arthur Chas	Pacific Telephone
1937	Mershon Fred D clk Santa Fe	Los Angeles Directory Co.
	PATTERSON Wm Ada	Los Angeles Directory Co.
1933	PATTERSON Wm S Ada M wtchmn	Los Angeles Directory Co.
1929	PATTERSON Wm S Ada chiropractor	Los Angeles Directory Co.
1924	Kimble Mary V tchr r	Los Angeles Directory Co.

3957 S VERMONT AVE

Year	Uses	Source
1942	Mc NEIL Henry C Ruth M	Los Angeles Directory Co.
1937	Reeve Howard L Lucille slsmn Union Oil Co	Los Angeles Directory Co.
1929	Mac DONALD Emma J wid Roderick	Los Angeles Directory Co.
1924	Bogard Merean slsmn H E Mismer r	Los Angeles Directory Co.
	Bogard Merean slsmn H E Mismer r	Los Angeles Directory Co.

3960 S VERMONT AVE

Year	Uses	Source
1937	Shawk Wm W used cars	Los Angeles Directory Co.
1924	WOODWARD Ronald painter r	Los Angeles Directory Co.
	WOODWARD Belle Mrs r	Los Angeles Directory Co.
	Wilton Lee R clk r	Los Angeles Directory Co.
	TOWNSEND Sarah Mrs r	Los Angeles Directory Co.
	Brunott Fredk carp h	Los Angeles Directory Co.

FINDINGS

3962 S VERMONT AVE

Year	Uses	Source
1942	TEMPLE of Universal Rellgion Royal Order of Tibet	Los Angeles Directory Co.
	Movel Aram E Lillian radio serv	Los Angeles Directory Co.
1933	DAVIS E Frank restr	Los Angeles Directory Co.

3963 S VERMONT AVE

Year	Uses	Source
1937	STEWART Marion used cars	Los Angeles Directory Co.
1933	ANDERSON Benj M Naomi used autos	Los Angeles Directory Co.
	ANDERSON Benj M Naomi used autos	Los Angeles Directory Co.
1929	Wintrobe Saml D slsmn D V Dickinson r	Los Angeles Directory Co.
	Buer Florence real est	Los Angeles Directory Co.

3964 S VERMONT AVE

Year	Uses	Source
1937	VERMONT Sign Co John Eichen E E Clemens	Los Angeles Directory Co.
1933	VERMONT Sign Co Eno Clemens J A Eichen	Los Angeles Directory Co.
1924	Shepard Harry J stmftr h	Los Angeles Directory Co.
	SHEPHERD H J plumber r	Los Angeles Directory Co.

3965 S VERMONT AVE

Year	Uses	Source
2013	ARCHDIOCESE YOUTH EMPLOYMENT SERVICE	Cole Information Services
	UAW LABOR EMPLOYMENT & TRAINING CORP	Cole Information Services
2008	WARREN & ASSOCIATES	Cole Information Services
2006	ARCHDIOCESE	Haines Company, Inc
	YOUTH EMPLY SERV	Haines Company, Inc
1976	Los Angeles City See Los Angeles City Of	Pacific Telephone
	DISTRICT ATTORNEY Child Support Regional Ofcs Exposition Park	Pacific Telephone
	LEW PEQ	Pacific Telephone
	PUBLIC SOCIAL SERVICES DEPT Assistance Payments Ofcs Los Angeles Exposition Park	Pacific Telephone
1971	Los Angeles Exposition Park	Pacific Telephone
1967	Los Angeles County Of PUBLIC SOCIAL SERVICES DEPT OF	Pacific Telephone
	Exposition Park Dist	Pacific Telephone

FINDINGS

Year	Uses	Source
1967	Ocie Snack Bar	Pacific Telephone
1962	Perkins Emerson	Pacific Telephone
1937	BLUM Harold Minnie photog	Los Angeles Directory Co.
1933	Hackney Lida mach opr	Los Angeles Directory Co.
	Mc EWAN Glenn W clk County Civil Service Comun	Los Angeles Directory Co.
1924	Kimble Carl P blksmth h	Los Angeles Directory Co.

3966 S VERMONT AVE

Year	Uses	Source
1937	Mains Chas L Neva E clo clnr	Los Angeles Directory Co.
1933	Poe Walton Naomi printer	Los Angeles Directory Co.
1929	HUGHES Paint Co F W Hughes mgr	Los Angeles Directory Co.
1924	ANDERSON Edwin P slsmn h	Los Angeles Directory Co.

3967 S VERMONT AVE

Year	Uses	Source
1962	Madam Lelia Sewing Shop	Pacific Telephone
1958	Madam Lelia Sewing Shop	Pacific Telephone
1942	GORDON Harry Frances liquors	Los Angeles Directory Co.
1937	GORDON Harry liquors	Los Angeles Directory Co.
1933	Bivens Robt E Edna eggs	Los Angeles Directory Co.
	Mc WILLIAMS Lester clk	Los Angeles Directory Co.
	Ardern Frank V Alice M electn	Los Angeles Directory Co.
1929	De Lisle Chas J vulc	Los Angeles Directory Co.
1924	WILLIAMS Gerald Toland & Williams h	Los Angeles Directory Co.
	TOLAND & Williams J W Toland Gerald Williams gro	Los Angeles Directory Co.

3968 S VERMONT AVE

Year	Uses	Source
1942	Coliseum Furniture Co Alf Vecchione pres Josephine Vecchione treas	Los Angeles Directory Co.
1937	Coliseum Furniture Co Inc L M Brown mgr	Los Angeles Directory Co.
1933	Naccarato John P Florence furn	Los Angeles Directory Co.
1929	Schreiner Fred H Rena autos	Los Angeles Directory Co.
1924	Blacklock Oliver K auto apr r	Los Angeles Directory Co.
	Blacklock Anna G Mrs nurse r	Los Angeles Directory Co.
	Blacklock Jonathan O h	Los Angeles Directory Co.

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3969 S VERMONT AVE

Year	Uses	Source
1929	BAUMGARTNER Chas H Mayme barber	Los Angeles Directory Co.
1924	THOMAS & Wenger H S Thomas Mrs Rachel Wenger real est	Los Angeles Directory Co.

3971 S VERMONT AVE

Year	Uses	Source
1962	Fuentes Eduardo	Pacific Telephone
	Fuentes Julia P	Pacific Telephone
1937	Secoll Jos clo clnr	Los Angeles Directory Co.
1933	Seco I Jos Leber tailor	Los Angeles Directory Co.
	Seco Morris slsmn	Los Angeles Directory Co.
	Seco Saml plmbr	Los Angeles Directory Co.
1929	Secoll Jos Libby tailor	Los Angeles Directory Co.
1924	Rapaport Anna blndry wkr r	Los Angeles Directory Co.
	Secoll Jos tailor	Los Angeles Directory Co.

3972 S VERMONT AVE

Year	Uses	Source
1929	BELL Pearl restr	Los Angeles Directory Co.
1924	Shelley Chester A real est	Los Angeles Directory Co.

3973 S VERMONT AVE

Year	Uses	Source
1937	Guccione Pasquale T Marietta restr	Los Angeles Directory Co.
	ASSOCIATED Clinical Laboratories Jack Taylor Mrs F M Shover	Los Angeles Directory Co.
1933	LIGHT Nailable Brick Co J H Overton mgr	Los Angeles Directory Co.
	HOLLYWOOD Riviera Building Assn J D Kime pres L I Williams v pres J H Overton sec treas bldg contrs	Los Angeles Directory Co.

3974 S VERMONT AVE

Year	Uses	Source
1942	DANIELS Edwin F lab	Los Angeles Directory Co.
	DANIELS Anna Mrs	Los Angeles Directory Co.
	CLARK Ernest Eliz	Los Angeles Directory Co.
1937	NEWMAN Theresa smstrs	Los Angeles Directory Co.
	CLARK Ernest Eliz lndywkr	Los Angeles Directory Co.
	DAVIS Anna wid E F	Los Angeles Directory Co.
	DAVIS Frank	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	Charboneau Chas E Florence F elev opr	Los Angeles Directory Co.
	Shol ar Marian D Mrs	Los Angeles Directory Co.
	STEVENS Reese Margt carp	Los Angeles Directory Co.
1929	Chapin Alice wid J M	Los Angeles Directory Co.
1924	CAREY Peter D sec r	Los Angeles Directory Co.
	CAREY Cath r	Los Angeles Directory Co.
	CHAPIN Jas M h	Los Angeles Directory Co.
	Edwards Anna Mrs seam r	Los Angeles Directory Co.
	Edwards Archie D plastr h	Los Angeles Directory Co.
	Kebbie Edwd W chairmkr r	Los Angeles Directory Co.

3975 S VERMONT AVE

Year	Uses	Source
1942	SKINNER Sally E beauty shop	Los Angeles Directory Co.
1937	PERKINSON A VERNON Edna M Commercial and Industrial Building	Los Angeles Directory Co.
1933	OGLESBYS COLLECTING & REPOSSESSING AGENCY R S Oglosby Automobile Adusting Bonded and Licensed	Los Angeles Directory Co.
1929	Spiegelman Rae Mrs uphol	Los Angeles Directory Co.

3976 S VERMONT AVE

Year	Uses	Source
1942	DIRKS Oscar O Mary	Los Angeles Directory Co.
1937	DIRKS Oscar Mary	Los Angeles Directory Co.
1933	Doke Mary Mrs	Los Angeles Directory Co.
1929	WALKER Lois I inspr Bullocks r	Los Angeles Directory Co.
	BISHOP John G Lillian chauf	Los Angeles Directory Co.
1924	Deeds Frank T lathr r	Los Angeles Directory Co.
	Deeds Richd T gard h	Los Angeles Directory Co.

3977 S VERMONT AVE

Year	Uses	Source
1962	Stadium Club	Pacific Telephone
1958	Stadium Club Cafe cocktl lounge	Pacific Telephone
1942	Mc FADDEN David F Myrtle A restr	Los Angeles Directory Co.
1933	Perkinson A V Inc A V Perkinson pres genl contrs	Los Angeles Directory Co.
1929	PERKINSON A V INC A V Perkinson Pres E J Hupp Sec Treas General and Engineering Contracting	Los Angeles Directory Co.

FINDINGS

3978 S VERMONT AVE

Year	Uses	Source
1942	FRY Harry E Effie C v pres Fry & Fry Inc	Los Angeles Directory Co.
	Rubio Carrie F garmtwkr	Los Angeles Directory Co.
1937	Mc Jannett Mateel J check writer State Compensation Ins Fund	Los Angeles Directory Co.
	Mc Jannett Nellie wid Wm	Los Angeles Directory Co.
	Rubio Carrie F Mrs mach opr	Los Angeles Directory Co.
	WELLS Raymond F	Los Angeles Directory Co.
	WELLS Wm	Los Angeles Directory Co.
1933	Mc Jannett Mateel J clk State Compensation Ins Fund	Los Angeles Directory Co.
	Mc Jannett Wm Nellie eng	Los Angeles Directory Co.
	Rubio Carrie Mrs factywkr	Los Angeles Directory Co.
	WELLS Raymond F restwkr	Los Angeles Directory Co.
1929	HUBER Louise wid John	Los Angeles Directory Co.
	Mc Jannett Wm Nellie eng	Los Angeles Directory Co.
	SPARKS Richd Louise h	Los Angeles Directory Co.
	WELLS Ray lab r	Los Angeles Directory Co.
1924	HAYNES Danl W real est	Los Angeles Directory Co.
	Klenke Aug C real est h	Los Angeles Directory Co.
	Mc Jannett Enola O telep opr r	Los Angeles Directory Co.
	Mc Jannett Wm eng h	Los Angeles Directory Co.
	NEWMAN A J printer r	Los Angeles Directory Co.

3980 S VERMONT AVE

Year	Uses	Source
1942	GRANT Clarence Ruth	Los Angeles Directory Co.
	Graves Wm D	Los Angeles Directory Co.
	Hibeyan Anna Mrs	Los Angeles Directory Co.
	ROSENSTEIN Fred Mary	Los Angeles Directory Co.
	SMITH Clara M	Los Angeles Directory Co.
	VARTANIAN Mary	Los Angeles Directory Co.
1937	Dargol Theo Patricia	Los Angeles Directory Co.
	Enright Mary	Los Angeles Directory Co.
	Frye Harry E Effie tchr	Los Angeles Directory Co.
	PIERCE Hannah wid John h	Los Angeles Directory Co.
	PIERCE Hannah wid John h	Los Angeles Directory Co.
	TURNER Frank G Cora mach	Los Angeles Directory Co.
	Vartanian Geo Mary clo clnr	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	FRY Harry E Effie C tchr Beverly Sch for Boys	Los Angeles Directory Co.
	FRY Preston auto mech	Los Angeles Directory Co.
	Lubbers Anna Mrs clo clnr	Los Angeles Directory Co.
	Luther John Evelyn slsmn	Los Angeles Directory Co.
	RYAN Frank L Minnie pntr	Los Angeles Directory Co.
	RYAN Jas E clk	Los Angeles Directory Co.
	WILDE Theresa Mrs	Los Angeles Directory Co.
1929	FRY Raymond E Fry Bros	Los Angeles Directory Co.
	FRY Preston S auto mech	Los Angeles Directory Co.
	Gessner Carl ironwkr	Los Angeles Directory Co.
	Lubbers Anna Mrs clo clnr	Los Angeles Directory Co.
	Lubbers Anthony	Los Angeles Directory Co.
	Lubbers Henry A ironwkr	Los Angeles Directory Co.
	Millhouse Robt Freda	Los Angeles Directory Co.
1924	Enright & Pierce Mary C Enright Mrs Hannah Pierce furn	Los Angeles Directory Co.
	Johns Benj F motrmn r	Los Angeles Directory Co.
	JOHNS Gladys E r	Los Angeles Directory Co.

3981 S VERMONT AVE

Year	Uses	Source
1924	Weller Geo R clk dept public service h	Los Angeles Directory Co.

3986 S VERMONT AVE

Year	Uses	Source
1942	Schwanzara Alf I Marie sign pntr	Los Angeles Directory Co.
1933	BRIGHT Wm signs	Los Angeles Directory Co.
1924	Schwanzara Alfd signs	Los Angeles Directory Co.

VERMONT AVE S

3965 VERMONT AVE S

Year	Uses	Source
2000	LA CO SOCL SV PYMNT	Haines & Company
	LA CO SOCL SV PYMNT	Haines & Company
1951	S Vermnt Av Fisher Buick Co used car dept	Pacific Telephone & Telegraph Co.

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3967 VERMONT AVE S

Year	Uses	Source
1951	S Vermnt Als Furn Co	Pacific Telephone & Telegraph Co.

3977 VERMONT AVE S

Year	Uses	Source
1951	S Vermnt Stadium Club Cafe cocktail lounge	Pacific Telephone & Telegraph Co.

3985 VERMONT AVE S

Year	Uses	Source
2000	KINGS HOME DISCOUNT	Haines & Company
1951	S Vermnt Brown Adelaide J r	Pacific Telephone & Telegraph Co.

3987 VERMONT AVE S

Year	Uses	Source
1951	Young John L r	Pacific Telephone & Telegraph Co.
	Eck Effie r	Pacific Telephone & Telegraph Co.
	Moseley Morris T r	Pacific Telephone & Telegraph Co.
	Harvey Mabel C r	Pacific Telephone & Telegraph Co.
	S Vermnt Bobs Mens Store	Pacific Telephone & Telegraph Co.
	S Vermnt	Pacific Telephone & Telegraph Co.
	Wirth L r	Pacific Telephone & Telegraph Co.
	S Vermnt Carlson Leone Mrs r	Pacific Telephone & Telegraph Co.

3991 VERMONT AVE S

Year	Uses	Source
1951	S Vermnt Bab Helen Smart Shop	Pacific Telephone & Telegraph Co.

3992 VERMONT AVE S

Year	Uses	Source
2000	XXXX	Haines & Company

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
S Vermont Avenue and Martin Luther King Blvd	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1000 BROWNING BLVD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1005 BROWNING BLVD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3955 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3957 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3960 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3962 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3963 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3964 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3965 S VERMONT AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3965 S VERMONT AVE	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3965 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3966 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3966 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3967 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3967 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3968 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3969 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3969 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3970 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3971 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3972 S VERMONT AV USED CARS	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3972 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3973 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3973 S VERMONT AV R TORRANCE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3973 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3974 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3975 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3975 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3976 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3976 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3977 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3977 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3978 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3978 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3980 MENLO AVE	2013, 2008, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3980 MENLO AVE	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3980 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3981 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3985 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3985 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3986 S VERMONT AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3987 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3988 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3990 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3990 MENLO AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3991 1/2 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3991 3/4 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3991 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3992 VERMONT AVE S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3993 1/4 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3993 3/4 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3993 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3994 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3995 1/4 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3995 MENLO AVE	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

EDR-Radius Map Report

Appendix F

Converse Project No. 17-42-106-01
Copyright 2017 Converse Consultants

USC/Parking Lots 1 and 1A
S Vermont Avenue and Martin Luther King Blvd
Los Angeles, CA 90037

Inquiry Number: 4831358.2s
January 18, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

S VERMONT AVENUE AND MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037

COORDINATES

Latitude (North):	34.0120610 - 34° 0' 43.41''
Longitude (West):	118.2908070 - 118° 17' 26.90''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	380807.1
UTM Y (Meters):	3764050.0
Elevation:	172 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5630741 HOLLYWOOD, CA
Version Date:	2012
South Map:	5640440 INGLEWOOD, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140513
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
S VERMONT AVENUE AND MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	VARTAMAN GEO	3980 S VERMONT AVE	EDR Hist Cleaner	Higher	2, 0.000,
A2	FRY BROS	3972 S VERMONT AVE	EDR Hist Auto	Higher	4, 0.001,
A3	MAINS C L	3966 S VERMONT AVE	EDR Hist Cleaner	Higher	5, 0.001,
4	SMITTY'S AUTO STATIO	931 W MARTIN LUTHER	SWEEPS UST, CA FID UST	Higher	15, 0.003, SSE
A5	SECOLL JOS	3971 S VERMONT AVE	EDR Hist Cleaner	Higher	72, 0.014, WSW
B6	KWIK 19	3996 S VERMONT AVE	HIST UST	Lower	135, 0.026, SSW
B7	AL SAL OIL CO. INC	3996 S VERMONT AVE	SWEEPS UST, CA FID UST	Lower	135, 0.026, SSW
C8	COLEMANS G W SUPER S	3949 S VERMONT AVE	EDR Hist Auto	Higher	137, 0.026, NNW
C9	COLEMAN G W	3941 S VERMONT AVE	EDR Hist Auto	Higher	165, 0.031, NNW
B10	C AND K SELF SERVICE	1010 WEST MARTIN LUT	HIST UST	Lower	190, 0.036, SW
B11	SHELL	1010 MARTIN LUTHER K	LUST, HIST CORTESE	Lower	190, 0.036, SW
B12	D & J SHELL SERVICE	1010 W MARTIN LUTHER	EDR Hist Auto	Lower	190, 0.036, SW
B13	SHELL SERVICE STATIO	1010 W MARTIN LUTHER	RCRA-SQG, FINDS, ECHO	Lower	190, 0.036, SW
B14	YANG'S SHELL	1010 W MARTIN LUTHER	UST	Lower	190, 0.036, SW
B15	YANG'S SHELL	1010 W MARTIN LUTHER	SWEEPS UST	Lower	190, 0.036, SW
B16	YANG'S SHELL	1010 MARTIN LUTHER K	CA FID UST	Lower	190, 0.036, SW
A17	STOLEN BASE CLEANERS	1015 MARTIN LUTHER K	SLIC	Higher	207, 0.039, WSW
B18		4004 S VERMONT AVE	EDR Hist Auto	Higher	220, 0.042, South
B19	CHEVRON STATION 9775	4004 S VERMONT	RCRA-SQG, LUST, FINDS, HIST CORTESE, ECHO	Higher	220, 0.042, South
B20	SAL PATRON CHEVRON	4004 S VERMONT AVE	SWEEPS UST, CA FID UST	Higher	220, 0.042, South
B21	97757	4004 S VERMONT	HIST UST	Higher	220, 0.042, South
B22	SHUEY F W	4001 S VERMONT AVE	EDR Hist Auto	Lower	289, 0.055, SSW
B23	VAN ARTHUR	4016 S VERMONT AVE	EDR Hist Cleaner	Lower	314, 0.059, SSW
C24	DEAN'S AUTO PARK	3929 S VERMONT AVE	SWEEPS UST, CA FID UST	Higher	329, 0.062, NNW
C25		3929 S VERMONT AVE	EDR Hist Auto	Higher	329, 0.062, NNW
B26	KIMKEE CHIN	4015 S VERMONT AVE	EDR Hist Cleaner	Lower	333, 0.063, SSW
B27	GOSSARD G M	4034 S VERMONT AVE	EDR Hist Cleaner	Lower	347, 0.066, SSW
B28	GOLDSTEIN MAURICE	4031 S VERMONT AVE	EDR Hist Cleaner	Lower	389, 0.074, SSW
B29	WEISS ALBT	4037 S VERMONT AVE	EDR Hist Cleaner	Lower	414, 0.078, SSW
D30	CHOY HELEN	3912 S VERMONT AVE	EDR Hist Cleaner	Higher	450, 0.085, NNW
D31	SOLES DEAN	1015 39TH PL	EDR Hist Auto	Higher	451, 0.085, NNW
D32	BARTELS C P	1015 W 39TH PL	EDR Hist Auto	Higher	451, 0.085, NNW
E33	GANSER T G MRS	4060 S VERMONT AVE	EDR Hist Cleaner	Lower	463, 0.088, SSW
F34	STOLEN BASE CLEANERS	1015 W MARTIN LUTHER	RCRA-SQG, LUST, SLIC, FINDS, HIST CORTESE, ECHO	Lower	492, 0.093, WSW
F35	MARA E C	1010 W 40TH PL	EDR Hist Auto	Lower	520, 0.098, SW
F36		1017 W MARTIN LUTHER	EDR Hist Cleaner	Lower	523, 0.099, WSW
F37		1017 W MARTIN LUTHER	EDR Hist Cleaner	Lower	523, 0.099, WSW
E38	GANSER TERESA MRS	4084 S VERMONT AVE	EDR Hist Cleaner	Lower	572, 0.108, South
F39	LA CORVETTE WORKS	1062 W MARTIN LUTHER	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	757, 0.143, WSW

MAPPED SITES SUMMARY

Target Property Address:
S VERMONT AVENUE AND MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	AMOS YU	1100 W MARTIN LUTHER	SWEEPS UST, CA FID UST	Lower	895, 0.170, WSW
41	LA USD MANUAL ARTS H	4131 S VERMONT AVE	RCRA-LQG, FINDS, ECHO	Lower	1111, 0.210, South
G42	TROJAN CLEANERS	1130 W MARTIN LUTHER	DRYCLEANERS	Lower	1175, 0.223, WSW
43	ARCO FACILITY NO. 10	3775 VERMONT AVENUE	LUST	Higher	1732, 0.328, North
44	NIK CONSTRUCTION CO.	4251-4261 S VERMONT	LUST	Lower	1769, 0.335, South
45	UNOCAL #2059	3771 VERMONT AVE S	LUST	Higher	2029, 0.384, North
46	ARCO #3000	504 MARTIN LUTHER KI	LUST, HIST CORTESE	Higher	2224, 0.421, East
H47	MOBIL #11-LVC (FORME	1355 MARTIN LUTHER K	LUST, HIST UST	Lower	2447, 0.463, West
H48	FORMER MOBIL SS#11-L	1355 MARTIN LUTHER K	LUST, SWEEPS UST	Lower	2447, 0.463, West
H49	MOBIL #11-LVC (FORME	1355 MARTIN LUTHER K	HIST CORTESE	Lower	2447, 0.463, West
50	PENNY RECYCLING #2	4157 S FIGUEROA ST	SWRCY	Higher	2469, 0.468, ESE
51	GENERAL PLATING CO	951 W VERNON AVE	ENVIROSTOR, SWEEPS UST, HIST UST, DEED, EMI, LA...	Lower	2664, 0.505, South
52	PROPOSED SOUTH REGIO	VERNON AVENUE BETWEE	ENVIROSTOR, SCH	Lower	2902, 0.550, SSE
53	BARTON-JONES CHEMICA	1207 W. VERNON AVE	ENVIROSTOR	Lower	3020, 0.572, SSW
54	ACCELERATED CHARTER	3843-3859 WOODLAWN A	ENVIROSTOR, SCH	Higher	5168, 0.979, East

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

EXECUTIVE SUMMARY

State- and tribal - equivalent NPL

RESPONSE State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
AST Aboveground Petroleum Storage Tank Facilities
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing
VCP Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT Waste Management Unit Database
HAULERS Registered Waste Tire Haulers Listing
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
ODI Open Dump Inventory
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN San Gabriel Valley Areas of Concern
US HIST CDL Delisted National Clandestine Laboratory Register
HIST Cal-Sites Historical Calsites Database
SCH School Property Evaluation Program
CDL Clandestine Drug Labs
Toxic Pits Toxic Pits Cleanup Act Sites
US CDL National Clandestine Laboratory Register

Local Land Records

LIENS Environmental Liens Listing

LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data

LOS ANGELES CO. HMS - HMS: Street Number List
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
LA Co. Site Mitigation - Site Mitigation List
UIC - UIC Listing
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
FUELS PROGRAM - EPA Fuels Program Registered Listing
ICE - ICE
ABANDONED MINES - Abandoned Mines
ECHO - Enforcement & Compliance History Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting

the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 09/12/2016 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA USD MANUAL ARTS H	*4131 S VERMONT AVE*	*S 1/8 - 1/4 (0.210 mi.)*	*41*	*39*

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/12/2016 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON STATION 9775	*4004 S VERMONT*	*S 0 - 1/8 (0.042 mi.)*	*B19*	*21*

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL SERVICE STATIO	*1010 W MARTIN LUTHER*	*SW 0 - 1/8 (0.036 mi.)*	*B13*	*17*
STOLEN BASE CLEANERS	*1015 W MARTIN LUTHER*	*WSW 0 - 1/8 (0.093 mi.)*	*F34*	*31*
LA CORVETTE WORKS	*1062 W MARTIN LUTHER*	*WSW 1/8 - 1/4 (0.143 mi.)*	*F39*	*36*

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/01/2016 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ACCELERATED CHARTER Facility Id: 60001649 Status: No Further Action	*3843-3859 WOODLAWN A*	*E 1/2 - 1 (0.979 mi.)*	*54*	*68*

Lower Elevation	Address	Direction / Distance	Map ID	Page
GENERAL PLATING CO	*951 W VERNON AVE*	*S 1/2 - 1 (0.505 mi.)*	*51*	*54*

Facility Id: 71002760
Facility Id: 19340667
Status: Certified O&M - Land Use Restrictions Only
Status: Refer: Other Agency

PROPOSED SOUTH REGIO	***VERNON AVENUE BETWEE***	***SSE 1/2 - 1 (0.550 mi.)***	***52***	***62***
Facility Id: 60000890 Status: Certified				
BARTON-JONES CHEMICA	1207 W. VERNON AVE	SSW 1/2 - 1 (0.572 mi.)	53	67
Facility Id: 19280552 Status: No Further Action				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 9 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON STATION 9775	***4004 S VERMONT***	***S 0 - 1/8 (0.042 mi.)***	***B19***	***21***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 11/01/2016 Status: Completed - Case Closed Facility Id: 900370061 Status: Pollution Characterization Global Id: T0603700909 Global ID: T0603700909				
ARCO FACILITY NO. 10	3775 VERMONT AVENUE	N 1/4 - 1/2 (0.328 mi.)	43	43
Database: LUST, Date of Government Version: 11/01/2016 Status: Completed - Case Closed Global Id: T0603729495				
UNOCAL #2059	3771 VERMONT AVE S	N 1/4 - 1/2 (0.384 mi.)	45	45
Database: LUST, Date of Government Version: 11/01/2016 Status: Completed - Case Closed Global Id: T10000005368				
ARCO #3000	***504 MARTIN LUTHER KI***	***E 1/4 - 1/2 (0.421 mi.)***	***46***	***46***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 11/01/2016 Status: Completed - Case Closed Facility Id: 900370016 Status: Case Closed Global Id: T0603700904 Global ID: T0603700904				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL	***1010 MARTIN LUTHER K***	***SW 0 - 1/8 (0.036 mi.)***	***B11***	***14***
Database: LUST REG 4, Date of Government Version: 09/07/2004 Database: LUST, Date of Government Version: 11/01/2016				

Status: Completed - Case Closed
Facility Id: 900370052
Status: Case Closed
Global Id: T0603700908
Global ID: T0603700908

STOLEN BASE CLEANERS ***1015 W MARTIN LUTHER*** ***WSW 0 - 1/8 (0.093 mi.)*** ***F34*** ***31***
Database: LUST REG 4, Date of Government Version: 09/07/2004
Database: LUST, Date of Government Version: 11/01/2016
Status: Completed - Case Closed
Facility Id: 900370034
Status: Remediation Plan
Global Id: T0603700906
Global ID: T0603700906

NIK CONSTRUCTION CO. 4251-4261 S VERMONT S 1/4 - 1/2 (0.335 mi.) 44 44
Database: LUST, Date of Government Version: 11/01/2016
Status: Completed - Case Closed
Global Id: T0603788088

MOBIL #11-LVC (FORME ***1355 MARTIN LUTHER K*** ***W 1/4 - 1/2 (0.463 mi.)*** ***H47*** ***49***
Database: LUST, Date of Government Version: 11/01/2016
Status: Completed - Case Closed
Global Id: T0603700905

FORMER MOBIL SS#11-L ***1355 MARTIN LUTHER K*** ***W 1/4 - 1/2 (0.463 mi.)*** ***H48*** ***51***
Database: LUST REG 4, Date of Government Version: 09/07/2004
Facility Id: 900370025
Status: Case Closed
Global ID: T0603700905

SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the SLIC list, as provided by EDR, has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STOLEN BASE CLEANERS	1015 MARTIN LUTHER K	WSW 0 - 1/8 (0.039 mi.)	A17	20
Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Completed - Case Closed Global Id: SL184901473				

Lower Elevation	Address	Direction / Distance	Map ID	Page
STOLEN BASE CLEANERS	***1015 W MARTIN LUTHER***	***WSW 0 - 1/8 (0.093 mi.)***	***F34***	***31***
Database: SLIC REG 4, Date of Government Version: 11/17/2004 Facility Status: No further action required				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
YANG'S SHELL Database: UST, Date of Government Version: 09/12/2016 Facility Id: 24748	1010 W MARTIN LUTHER	SW 0 - 1/8 (0.036 mi.)	B14	19

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 09/12/2016 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PENNY RECYCLING #2 Cert Id: RC12221	4157 S FIGUEROA ST	ESE 1/4 - 1/2 (0.468 mi.)	50	54

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 6 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SMITTY'S AUTO STATIO Comp Number: 5238	***931 W MARTIN LUTHER***	***SSE 0 - 1/8 (0.003 mi.)***	***4***	***8***
SAL PATRON CHEVRON Comp Number: 5952	***4004 S VERMONT AVE***	***S 0 - 1/8 (0.042 mi.)***	***B20***	***25***
DEAN'S AUTO PARK Status: A Comp Number: 4798	***3929 S VERMONT AVE***	***NNW 0 - 1/8 (0.062 mi.)***	***C24***	***27***

Lower Elevation	Address	Direction / Distance	Map ID	Page
AL SAL OIL CO. INC	***3996 S VERMONT AVE***	***SSW 0 - 1/8 (0.026 mi.)***	***B7***	***11***

Status: A Tank Status: A Comp Number: 610				
YANG'S SHELL Status: A Tank Status: A Comp Number: 6088	1010 W MARTIN LUTHER	SW 0 - 1/8 (0.036 mi.)	B15	19
AMOS YU Status: A Comp Number: 4471	***1100 W MARTIN LUTHER***	***WSW 1/8 - 1/4 (0.170 mi.)***	***G40***	***39***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
97757 Facility Id: 00000063021	4004 S VERMONT	S 0 - 1/8 (0.042 mi.)	B21	26

Lower Elevation	Address	Direction / Distance	Map ID	Page
KWIK 19 Facility Id: 00000005444	3996 S VERMONT AVE	SSW 0 - 1/8 (0.026 mi.)	B6	9
C AND K SELF SERVICE Facility Id: 00000006358	1010 WEST MARTIN LUT	SW 0 - 1/8 (0.036 mi.)	B10	13

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 6 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SMITTY'S AUTO STATIO Facility Id: 19055998 Status: A	***931 W MARTIN LUTHER***	***SSE 0 - 1/8 (0.003 mi.)***	***4***	***8***
SAL PATRON CHEVRON Facility Id: 19001644 Status: I	***4004 S VERMONT AVE***	***S 0 - 1/8 (0.042 mi.)***	***B20***	***25***
DEAN'S AUTO PARK Facility Id: 19032425 Status: A	***3929 S VERMONT AVE***	***NNW 0 - 1/8 (0.062 mi.)***	***C24***	***27***

Lower Elevation	Address	Direction / Distance	Map ID	Page
AL SAL OIL CO. INC Facility Id: 19023611 Status: A	***3996 S VERMONT AVE***	***SSW 0 - 1/8 (0.026 mi.)***	***B7***	***11***
YANG'S SHELL	1010 MARTIN LUTHER K	SW 0 - 1/8 (0.036 mi.)	B16	20

Facility Id: 19003553
Status: A

AMOS YU	***1100 W MARTIN LUTHER***	***WSW 1/8 - 1/4 (0.170 mi.)***	***G40***	***39***
Facility Id: 19055806 Status: A				

Other Ascertainable Records

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 09/02/2016 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TROJAN CLEANERS EPA Id: CAL000232349 EPA Id: CAL000294666	1130 W MARTIN LUTHER	WSW 1/8 - 1/4 (0.223 mi.)	G42	42

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON STATION 9775 Reg Id: 900370061	***4004 S VERMONT***	***S 0 - 1/8 (0.042 mi.)***	***B19***	***21***
ARCO #3000 Reg Id: 900370016	***504 MARTIN LUTHER KI***	***E 1/4 - 1/2 (0.421 mi.)***	***46***	***46***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL Reg Id: 900370052	***1010 MARTIN LUTHER K***	***SW 0 - 1/8 (0.036 mi.)***	***B11***	***14***
STOLEN BASE CLEANERS Reg Id: 900370034	***1015 W MARTIN LUTHER***	***WSW 0 - 1/8 (0.093 mi.)***	***F34***	***31***
MOBIL #11-LVC (FORME Reg Id: 900370025	1355 MARTIN LUTHER K	W 1/4 - 1/2 (0.463 mi.)	H49	53

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 10 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FRY BROS	3972 S VERMONT AVE	0 - 1/8 (0.001 mi.)	A2	8
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
COLEMANS G W SUPER S	3949 S VERMONT AVE	NNW 0 - 1/8 (0.026 mi.)	C8	13
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
COLEMAN G W	3941 S VERMONT AVE	NNW 0 - 1/8 (0.031 mi.)	C9	13
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
Not reported	4004 S VERMONT AVE	S 0 - 1/8 (0.042 mi.)	B18	21
Not reported	3929 S VERMONT AVE	NNW 0 - 1/8 (0.062 mi.)	C25	28
SOLES DEAN	1015 39TH PL	NNW 0 - 1/8 (0.085 mi.)	D31	30
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
BARTELS C P	1015 W 39TH PL	NNW 0 - 1/8 (0.085 mi.)	D32	30
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				

Lower Elevation	Address	Direction / Distance	Map ID	Page
D & J SHELL SERVICE	1010 W MARTIN LUTHER	SW 0 - 1/8 (0.036 mi.)	B12	17
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
SHUEY F W	4001 S VERMONT AVE	SSW 0 - 1/8 (0.055 mi.)	B22	27
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				
MARA E C	1010 W 40TH PL	SW 0 - 1/8 (0.098 mi.)	F35	35
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 13 EDR Hist

EXECUTIVE SUMMARY

Cleaner sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VARTAMAN GEO	3980 S VERMONT AVE	0 - 1/8 (0.000 mi.)	A1	8
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
MAINS C L	3966 S VERMONT AVE	0 - 1/8 (0.001 mi.)	A3	8
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
SECOLL JOS	3971 S VERMONT AVE	WSW 0 - 1/8 (0.014 mi.)	A5	9
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
CHOY HELEN	3912 S VERMONT AVE	NNW 0 - 1/8 (0.085 mi.)	D30	30
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				

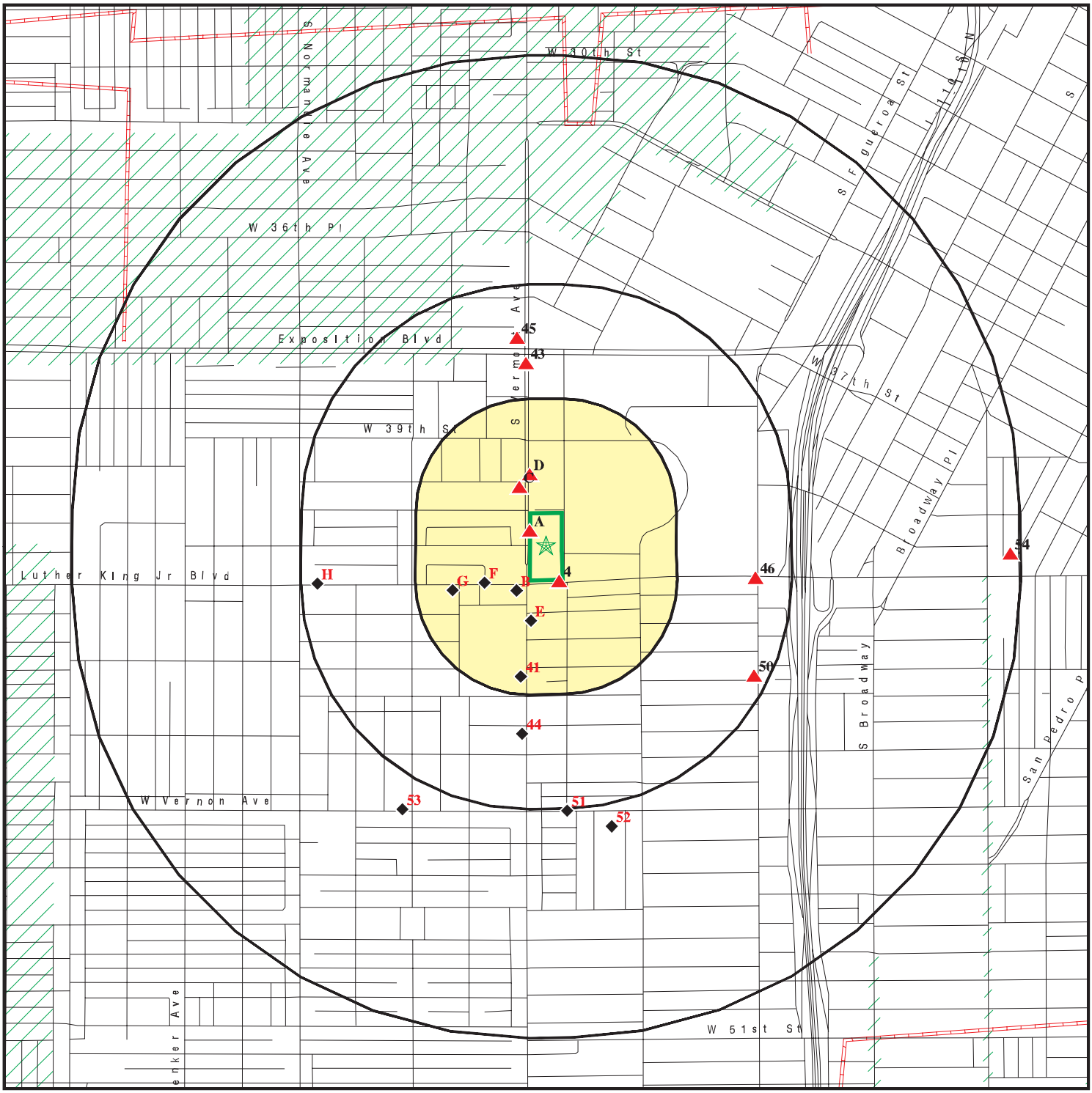
Lower Elevation	Address	Direction / Distance	Map ID	Page
VAN ARTHUR	4016 S VERMONT AVE	SSW 0 - 1/8 (0.059 mi.)	B23	27
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
KIMKEE CHIN	4015 S VERMONT AVE	SSW 0 - 1/8 (0.063 mi.)	B26	29
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
GOSSARD G M	4034 S VERMONT AVE	SSW 0 - 1/8 (0.066 mi.)	B27	29
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
GOLDSTEIN MAURICE	4031 S VERMONT AVE	SSW 0 - 1/8 (0.074 mi.)	B28	29
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
WEISS ALBT	4037 S VERMONT AVE	SSW 0 - 1/8 (0.078 mi.)	B29	29
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
GANSER T G MRS	4060 S VERMONT AVE	SSW 0 - 1/8 (0.088 mi.)	E33	31
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
Not reported	1017 W MARTIN LUTHER	WSW 0 - 1/8 (0.099 mi.)	F36	35
Not reported	1017 W MARTIN LUTHER	WSW 0 - 1/8 (0.099 mi.)	F37	35
GANSER TERESA MRS	4084 S VERMONT AVE	S 0 - 1/8 (0.108 mi.)	E38	36
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 6 records.

Site Name	Database(s)
SOUTHERN CALIFORNIA DISPOSAL	SWF/LF
MANUAL ARTS NEW PRIMARY CENTER NO.	ENVIROSTOR, SCH
ORTHOPEDIC HOSPITAL MAGNET HIGH SC	ENVIROSTOR, SCH
MANUAL ARTS NEW ELEMENTARY SCHOOL	ENVIROSTOR, SCH
CALIFORNIA FASHION INDUSTRIES	ENVIROSTOR, SCH
JEFFERSON ELEMENTARY SCHOOL NO. 1	ENVIROSTOR, SCH

OVERVIEW MAP - 4831358.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Pipelines

100-year flood zone

500-year flood zone

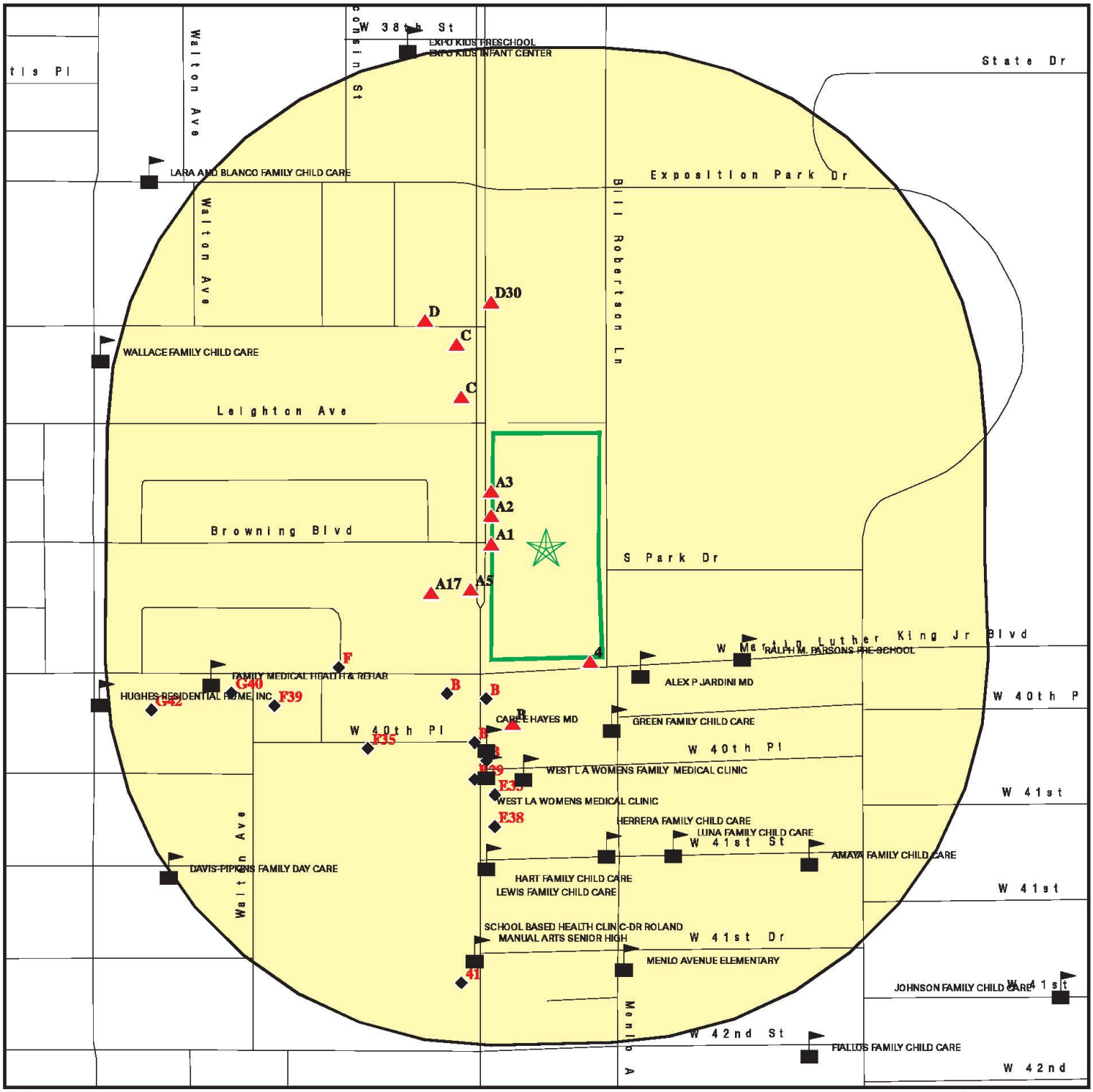
Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	USC/Parking Lots 1 and 1A	CLIENT:	Converse Consultants
ADDRESS:	S Vermont Avenue and Martin Luther King Blvd Los Angeles CA 90037	CONTACT:	Laura Tanaka
LAT/LONG:	34.012061 / 118.290807	INQUIRY #:	4831358.2s
		DATE:	January 18, 2017 7:48 pm

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DETAIL MAP - 4831358.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: USC/Parking Lots 1 and 1A	CLIENT: Converse Consultants
ADDRESS: S Vermont Avenue and Martin Luther King Blvd Los Angeles CA 90037	CONTACT: Laura Tanaka
LAT/LONG: 34.012061 / 118.290807	INQUIRY #: 4831358.2s DATE: January 18, 2017 7:49 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250		3	1	NR	NR	NR	4
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	4	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		3	0	6	NR	NR	9

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		2	0	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		5	1	NR	NR	NR	6
HIST UST	0.250		3	0	NR	NR	NR	3
CA FID UST	0.250		5	1	NR	NR	NR	6
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	1	NR	NR	NR	1
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST CORTESE	0.500		3	0	2	NR	NR	5
LOS ANGELES CO. HMS	0.001		0	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		10	NR	NR	NR	NR	10
EDR Hist Cleaner	0.125		13	NR	NR	NR	NR	13
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	48	5	9	4	0	66

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **VARTAMAN GEO** **EDR Hist Cleaner** **1009190979**
3980 S VERMONT AVE **N/A**
< 1/8 **LOS ANGELES, CA**
0.000 mi.
2 ft. **Site 1 of 5 in cluster A**

Relative: EDR Historical Cleaners:
Higher
Name: LUBBERS ANNA
Year: 1929
Actual: Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS
172 ft.

Name: LUBBERS ANNA MRS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: VARTAMAN GEO
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

A2 **FRY BROS** **EDR Hist Auto** **1009081048**
3972 S VERMONT AVE **N/A**
< 1/8 **LOS ANGELES, CA**
0.001 mi.
4 ft. **Site 2 of 5 in cluster A**

Relative: EDR Historical Auto Stations:
Higher
Name: FRY BROS
Year: 1937
Actual: Type: AUTOMOBILE REPAIRING
172 ft.

A3 **MAINS C L** **EDR Hist Cleaner** **1009190006**
3966 S VERMONT AVE **N/A**
< 1/8 **LOS ANGELES, CA**
0.001 mi.
5 ft. **Site 3 of 5 in cluster A**

Relative: EDR Historical Cleaners:
Higher
Name: MAINS C L
Year: 1937
Actual: Type: CLOTHES PRESSERS AND CLEANERS
172 ft.

---

4 **SMITTY'S AUTO STATION** **SWEEPS UST** **S101587786**
SSE **931 W MARTIN LUTHER KING BLVD** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90021**
0.003 mi.
15 ft.

Relative: SWEEPS UST:
Higher
Status: Not reported
Comp Number: 5238
Actual: Number: Not reported
172 ft. Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported

SMITTY'S AUTO STATION (Continued) **S101587786**

Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19055998
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2137379141
Mail To: Not reported
Mailing Address: 931 W MARTIN LUTHER KING BLV
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900210000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

A5 **SECOLL JOS** **EDR Hist Cleaner** **1009189407**
WSW **3971 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.014 mi.
72 ft. **Site 4 of 5 in cluster A**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:
Name: SECOLL JOS
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

B6 **KWIK 19** **HIST UST** **1000266511**
SSW **3996 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.026 mi.
135 ft. **Site 1 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

HIST UST:
File Number: 00026242
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00026242.pdf
Region: STATE
Facility ID: 00000005444
Facility Type: Gas Station
Other Type: Not reported
Contact Name: MONTRI
Telephone: 2136664471
Owner Name: AL-SAL OIL CO.
Owner Address: 5121 SUNSET BLVD.
Owner City,St,Zip: LOS ANGELES, CA 90027

KWIK 19 (Continued) **1000266511**

Total Tanks:	0005
Tank Num:	001
Container Num:	1
Year Installed:	1983
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1983
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	003
Container Num:	3
Year Installed:	1983
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	004
Container Num:	4
Year Installed:	1983
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	005
Container Num:	5
Year Installed:	1983
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

B7 **AL SAL OIL CO. INC** **SWEEPS UST** **S101585441**
SSW **3996 S VERMONT AVE** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.026 mi.
135 ft. **Site 2 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

SWEEPS UST:

Status:	Active
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Referral Date:	01-15-93
Action Date:	03-15-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-000610-000001
Tank Status:	A
Capacity:	20000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Status:	Active
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Referral Date:	01-15-93
Action Date:	03-15-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-000610-000002
Tank Status:	A
Capacity:	20000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Referral Date:	01-15-93
Action Date:	03-15-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-000610-000003
Tank Status:	A
Capacity:	20000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active

AL SAL OIL CO. INC (Continued) **S101585441**

Comp Number: 610
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000610-000004
Tank Status: A
Capacity: 20000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 610
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000610-000005
Tank Status: A
Capacity: 20000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19023611
Regulated By: UTNKA
Regulated ID: 00005444
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2137784187
Mail To: Not reported
Mailing Address: 5121 SUNSET BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

C8 **COLEMANS G W SUPER SERVICE STATION** **EDR Hist Auto** **1009076873**
NNW **3949 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.026 mi.
137 ft. **Site 1 of 4 in cluster C**

Relative:
Higher

Actual:
173 ft.

EDR Historical Auto Stations:

Name:	COLEMAN G W
Year:	1924
Type:	AUTOMOBILE SERVICE STATIONS
Name:	COLEMAN G W
Year:	1929
Type:	GASOLINE AND OIL SERVICE STATION
Name:	COLEMANS G W SUPER SERVICE STATION
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	FIELDING J F
Year:	1937
Type:	AUTOMOBILE REPAIRING
Name:	COON W E
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

C9 **COLEMAN G W** **EDR Hist Auto** **1009082971**
NNW **3941 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.031 mi.
165 ft. **Site 2 of 4 in cluster C**

Relative:
Higher

Actual:
173 ft.

EDR Historical Auto Stations:

Name:	COLEMAN G W
Year:	1937
Type:	GASOLINE AND OIL SERVICE STATIONS

B10 **C AND K SELF SERVICE INC 1** **HIST UST** **U001561451**
SW **1010 WEST MARTIN LUTHER KING J** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.036 mi.
190 ft. **Site 3 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

HIST UST:

File Number:	00028486
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00028486.pdf
Region:	STATE
Facility ID:	00000006358
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	CLIFF & KATHY RUSSELL
Telephone:	2134574917
Owner Name:	SHELL OIL COMPANY
Owner Address:	PO BOX 4848
Owner City,St,Zip:	ANAHEIM, CA 92803
Total Tanks:	0004

C AND K SELF SERVICE INC 1 (Continued) **U001561451**

Tank Num:	001
Container Num:	1
Year Installed:	1973
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	2
Year Installed:	1973
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	3
Year Installed:	1973
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

Tank Num:	004
Container Num:	4
Year Installed:	1973
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

Click here for Geo Tracker PDF:

B11 **SHELL** **LUST** **S102436796**
SW **1010 MARTIN LUTHER KING BLVD** **HIST CORTESE** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.036 mi.
190 ft. **Site 4 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

LUST:

Region:	STATE
Global Id:	T0603700908
Latitude:	34.010497
Longitude:	-118.291919
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/29/1997
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900370052
LOC Case Number:	Not reported
File Location:	Not reported

SHELL (Continued) **S102436796**

Potential Media Affect: Soil
Potential Contaminants of Concern: Aviation
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700908
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700908
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700908
Status: Completed - Case Closed
Status Date: 10/29/1997

Global Id: T0603700908
Status: Open - Case Begin Date
Status Date: 05/17/1989

Global Id: T0603700908
Status: Open - Remediation
Status Date: 05/21/1992

Regulatory Activities:
Global Id: T0603700908
Action Type: Other
Date: 05/17/1989
Action: Leak Discovery

Global Id: T0603700908
Action Type: Other
Date: 05/21/1992
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370052
Status: Case Closed

SHELL (Continued) **S102436796**

Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700908	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	VERMONT	
Enforcement Type:	Not reported	
Date Leak Discovered:	5/17/1989	
Date Leak First Reported:		5/21/1992
Date Leak Record Entered:	5/25/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/29/1997
Date the Case was Closed:		10/29/1997
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	YANG, WILLIAM	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		3136.3576468979452832862972419
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		5/21/1992
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	SHELL OIL CO.	
RP Address:	511 BROOKHURST ST., N., ANAHEIM, 98203	
Program:	LUST	
Lat/Long:	34.0107123 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19

SHELL (Continued) **S102436796**

Reg By: LTNKA
Reg Id: 900370052

B12 **D & J SHELL SERVICE** **EDR Hist Auto** **1008996180**
SW **1010 W MARTIN LUTHER KING JR BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90000**
0.036 mi.
190 ft. **Site 5 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

EDR Historical Auto Stations:

Name: D & J SHELL SERVICE
Year: 1994
Type: Not reported

Name: VERMONT GAS
Year: 2011
Address: 1010 W MARTIN LUTHER KING JR BLVD

Name: VERMONT GAS
Year: 2012
Address: 1010 W MARTIN LUTHER KING JR BLVD

B13 **SHELL SERVICE STATION** **RCRA-SQG** **1004678096**
SW **1010 W MARTIN LUTHER KING JR** **FINDS** **CAR000105023**
< 1/8 **LOS ANGELES, CA 90037** **ECHO**
0.036 mi.
190 ft. **Site 6 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

RCRA-SQG:
Date form received by agency: 09/10/2001
Facility name: SHELL SERVICE STATION
Facility address: 1010 W MARTIN LUTHER KING JR
SAP 135555
LOS ANGELES, CA 90037
EPA ID: CAR000105023
Mailing address: P O BOX 2648
HOUSTON, TX 772522648
Contact: SONDRA BIENVENU
Contact address: P O BOX 2648
HOUSTON, TX 772522648
Contact country: US
Contact telephone: (713) 241-5036
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EQUILON ENTERPRISES L L C
Owner/operator address: P O BOX 2648
HOUSTON, TX 77252
Owner/operator country: Not reported

SHELL SERVICE STATION (Continued) **1004678096**

Owner/operator telephone: (713) 241-5036
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110012231888

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1004678096
Registry ID: 110012231888
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110012231888

B14 **YANG'S SHELL** **UST** **U003984048**
SW **1010 W MARTIN LUTHER KING JR BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.036 mi.
190 ft. **Site 7 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

UST:
Facility ID: 24748
Permitting Agency: LOS ANGELES, CITY OF
Latitude: 34.0118287
Longitude: -118.2905688

B15 **YANG'S SHELL** **SWEEPS UST** **S106934607**
SW **1010 W MARTIN LUTHER KING BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.036 mi.
190 ft. **Site 8 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

SWEEPS UST:
Status: Active
Comp Number: 6088
Number: 2
Board Of Equalization: Not reported
Referral Date: 09-24-93
Action Date: 02-24-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-006088-000001
Tank Status: A
Capacity: 12000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 6088
Number: 2
Board Of Equalization: Not reported
Referral Date: 09-24-93
Action Date: 02-24-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-006088-000002
Tank Status: A
Capacity: 12000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 6088
Number: 2
Board Of Equalization: Not reported
Referral Date: 09-24-93
Action Date: 02-24-94
Created Date: 02-29-88

YANG'S SHELL (Continued) **S106934607**

Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-006088-000003
Tank Status:	A
Capacity:	12000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

B16 **YANG'S SHELL** **CA FID UST** **S101583375**
SW **1010 MARTIN LUTHER KING BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.036 mi.
190 ft. **Site 9 of 19 in cluster B**

Relative:
Lower

Actual:
171 ft.

CA FID UST:

Facility ID:	19003553
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132334155
Mail To:	Not reported
Mailing Address:	1010 MARTIN LUTHER KING
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900370000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

A17 **STOLEN BASE CLEANERS** **SLIC** **S106483780**
WSW **1015 MARTIN LUTHER KING JR BLVD W** **N/A**
< 1/8 **LOS ANGELES, CA**
0.039 mi.
207 ft. **Site 5 of 5 in cluster A**

Relative:
Higher

Actual:
172 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	12/01/1998
Global Id:	SL184901473
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.01094
Longitude:	-118.256367
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	0647
File Location:	Not reported
Potential Media Affected:	Not reported

STOLEN BASE CLEANERS (Continued) **S106483780**

Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

B18
South
< 1/8
0.042 mi.
220 ft.

4004 S VERMONT AVE
LOS ANGELES, CA 90037

Site 10 of 19 in cluster B

EDR Hist Auto **1015469962**
N/A

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:
Name: PATRONS AUTO SERVICE
Year: 1999
Address: 4004 S VERMONT AVE

B19
South
< 1/8
0.042 mi.
220 ft.

CHEVRON STATION 97757
4004 S VERMONT
LOS ANGELES, CA 90037

Site 11 of 19 in cluster B

RCRA-SQG **1000905192**
LUST **CA0000368878**
FINDS
HIST CORTESE
ECHO

Relative:
Higher

Actual:
172 ft.

RCRA-SQG:
Date form received by agency: 06/06/1994
Facility name: CHEVRON STATION 97757
Facility address: 4004 S VERMONT
LOS ANGELES, CA 90037
EPA ID: CA0000368878
Mailing address: P O BOX 2833
LA HABRA, CA 90632
Contact: SUZANNE SISSUNG
Contact address: P O BOX 2833
LA HABRA, CA 90632
Contact country: US
Contact telephone: (310) 694-7452
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CHEVRON PRODUCTS CO
Owner/operator address: P O BOX 2833
LA HABRA, CA 90632
Owner/operator country: Not reported
Owner/operator telephone: (310) 694-7452
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

CHEVRON STATION 97757 (Continued) **1000905192**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST:
Region: STATE
Global Id: T0603700909
Latitude: 34.010392
Longitude: -118.291185
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/26/1997
Lead Agency: LOS ANGELES, CITY OF
Case Worker: EL
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370061
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700909
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700909
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

CHEVRON STATION 97757 (Continued) **1000905192**

Status History:

Global Id:	T0603700909
Status:	Completed - Case Closed
Status Date:	02/26/1997
Global Id:	T0603700909
Status:	Open - Case Begin Date
Status Date:	01/21/1988
Global Id:	T0603700909
Status:	Open - Site Assessment
Status Date:	01/21/1988

Regulatory Activities:

Global Id:	T0603700909
Action Type:	Other
Date:	01/21/1988
Action:	Leak Discovery
Global Id:	T0603700909
Action Type:	Other
Date:	01/21/1988
Action:	Leak Stopped
Global Id:	T0603700909
Action Type:	Other
Date:	01/21/1988
Action:	Leak Reported

LUST REG 4:

Region:	4		
Regional Board:	04		
County:	Los Angeles		
Facility Id:	900370061		
Status:	Pollution Characterization		
Substance:	Diesel		
Substance Quantity:	Not reported		
Local Case No:	Not reported		
Case Type:	Soil		
Abatement Method Used at the Site:			Not reported
Global ID:	T0603700909		
W Global ID:	Not reported		
Staff:	UNK		
Local Agency:	19050		
Cross Street:	SANTA BARBARA		
Enforcement Type:	Not reported		
Date Leak Discovered:	1/21/1988		
Date Leak First Reported:			1/21/1988
Date Leak Record Entered:	1/1/1980		
Date Confirmation Began:	Not reported		
Date Leak Stopped:	1/21/1988		
Date Case Last Changed on Database:			1/21/1988
Date the Case was Closed:			Not reported
How Leak Discovered:	Tank Test		
How Leak Stopped:	Not reported		

CHEVRON STATION 97757 (Continued) **1000905192**

Cause of Leak:	Corrosion
Leak Source:	Tank
Operator:	PATRON, SALVABOR
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	3289.337752046825515940231106
Source of Cleanup Funding:	Tank
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	1/21/1988
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	CHEVRON USA, INC
RP Address:	PO BOX 2833, LA HABRA, CA 90632
Program:	LUST
Lat/Long:	34.0106033 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	TESTER LOST 3 GALLONS OF DIESEL FUEL DURING TEST. THERE WAS NO APPARENT LOSS OF USED OIL. TANK WILL BE REMOVED.

FINDS:

Registry ID: 110002617696

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900370061

CHEVRON STATION 97757 (Continued) **1000905192**

ECHO:
Envid: 1000905192
Registry ID: 110002617696
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002617696

B20 **SAL PATRON CHEVRON** **SWEEPS UST** **S101582846**
South **4004 S VERMONT AVE** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.042 mi.
220 ft. **Site 12 of 19 in cluster B**

Relative:
Higher

Actual:
172 ft.

SWEEPS UST:
Status: Not reported
Comp Number: 5952
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: 0

CA FID UST:
Facility ID: 19001644
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132352888
Mail To: Not reported
Mailing Address: 4004 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

B21 **97757** **HIST UST** **U001561446**
South **4004 S VERMONT** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.042 mi.
220 ft. **Site 13 of 19 in cluster B**

Relative:
Higher

Actual:
172 ft.

HIST UST:

File Number:	00026E82
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00026E82.pdf
Region:	STATE
Facility ID:	00000063021
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	PATRON,SALVADOR
Telephone:	2132352288
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	1965
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1965
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1965
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000170
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1965
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000100
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

B22 **SHUEY F W** **EDR Hist Auto** **1009081625**
SSW **4001 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.055 mi.
289 ft. **Site 14 of 19 in cluster B**

Relative: **Lower**

Actual: **171 ft.**

EDR Historical Auto Stations:

Name:	SHUEY F W
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS

B23 **VAN ARTHUR** **EDR Hist Cleaner** **1009188471**
SSW **4016 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.059 mi.
314 ft. **Site 15 of 19 in cluster B**

Relative: **Lower**

Actual: **171 ft.**

EDR Historical Cleaners:

Name:	VAN ARTHUR
Year:	1924
Type:	CLOTHES CLEANERS PRESSERS AND DYERS

C24 **DEAN'S AUTO PARK** **SWEEPS UST** **S101585894**
NNW **3929 S VERMONT AVE** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.062 mi.
329 ft. **Site 3 of 4 in cluster C**

Relative: **Higher**

Actual: **172 ft.**

SWEEPS UST:

Status:	Active
Comp Number:	4798
Number:	2
Board Of Equalization:	Not reported
Referral Date:	02-25-93
Action Date:	03-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	19032425
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2136912996
Mail To:	Not reported
Mailing Address:	3929 S VERMONT AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900370000
Contact:	Not reported

DEAN'S AUTO PARK (Continued) **S101585894**

Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

C25 **EDR Hist Auto** **1015464648**
NNW **3929 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.062 mi.
329 ft. **Site 4 of 4 in cluster C**

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:

Name: D & J AUTOMOTIVE
Year: 1999
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2002
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2003
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2005
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2006
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2007
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2008
Address: 3929 S VERMONT AVE

Name: YAMAMOTO AUTOMOTIVE INC
Year: 2009
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2010
Address: 3929 S VERMONT AVE

Name: D & J AUTOMOTIVE
Year: 2011
Address: 3929 S VERMONT AVE

B26 **KIMKEE CHIN** **EDR Hist Cleaner** **1009190033**
SSW **4015 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.063 mi.
333 ft. **Site 16 of 19 in cluster B**

Relative: EDR Historical Cleaners:
Lower Name: KIMKEE CHIN
Year: 1929
Actual: Type: LAUNDRIES ORIENTAL
171 ft.

B27 **GOSSARD G M** **EDR Hist Cleaner** **1009188366**
SSW **4034 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.066 mi.
347 ft. **Site 17 of 19 in cluster B**

Relative: EDR Historical Cleaners:
Lower Name: GOSSARD G M
Year: 1924
Actual: Type: CLOTHES CLEANERS PRESSERS AND DYERS
171 ft.

B28 **GOLDSTEIN MAURICE** **EDR Hist Cleaner** **1009188361**
SSW **4031 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.074 mi.
389 ft. **Site 18 of 19 in cluster B**

Relative: EDR Historical Cleaners:
Lower Name: GOLDSTEIN MAURICE
Year: 1924
Actual: Type: CLOTHES CLEANERS PRESSERS AND DYERS
171 ft.

B29 **WEISS ALBT** **EDR Hist Cleaner** **1009188980**
SSW **4037 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.078 mi.
414 ft. **Site 19 of 19 in cluster B**

Relative: EDR Historical Cleaners:
Lower Name: BERNSTEIN HARRY
Year: 1929
Actual: Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS
171 ft.

Name: WEISS ALBT
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: KUNITZ G F
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

D30
NNW
< 1/8
0.085 mi.
450 ft.

CHOY HELEN
3912 S VERMONT AVE
LOS ANGELES, CA

Site 1 of 3 in cluster D

EDR Hist Cleaner

1009190718
N/A

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:

Name:	SHON SAM
Year:	1929
Type:	LAUNDRIES ORIENTAL
Name:	SHON SAML
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS
Name:	SHON SAML
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS
Name:	CHOY HELEN
Year:	1942
Type:	LAUNDRIES ORIENTAL

D31
NNW
< 1/8
0.085 mi.
451 ft.

SOLES DEAN
1015 39TH PL
LOS ANGELES, CA

Site 2 of 3 in cluster D

EDR Hist Auto

1009084321
N/A

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:

Name:	SOLES DEAN
Year:	1942
Type:	AUTOMOBILE REPAIRING

D32
NNW
< 1/8
0.085 mi.
451 ft.

BARTELS C P
1015 W 39TH PL
LOS ANGELES, CA

Site 3 of 3 in cluster D

EDR Hist Auto

1009076142
N/A

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:

Name:	BARTELS C P
Year:	1924
Type:	AUTOMOBILE REPAIRING
Name:	BARTELS C P
Year:	1933
Type:	AUTOMOBILE REPAIRING

E33 **GANSER T G MRS** **EDR Hist Cleaner** **1009190894**
SSW **4060 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.088 mi.
463 ft. **Site 1 of 2 in cluster E**

Relative:
Lower

EDR Historical Cleaners:
Name: GANSER T G MRS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Actual:
171 ft.

F34 **STOLEN BASE CLEANERS** **RCRA-SQG** **1000280171**
WSW **1015 W MARTIN LUTHER KING BLVD** **LUST** **CAD981992696**
< 1/8 **LOS ANGELES, CA 90037** **SLIC**
0.093 mi. **FINDS**
492 ft. **Site 1 of 5 in cluster F** **HIST CORTESE**
ECHO

Relative:
Lower

RCRA-SQG:
Date form received by agency: 09/03/1993
Facility name: STOLEN BASE CLEANERS
Facility address: 1015 W MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037
EPA ID: CAD981992696
Contact: BYUNG CHOE
Contact address: 1015 W MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037
Contact country: US
Contact telephone: (213) 731-2987
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
170 ft.

Owner/Operator Summary:
Owner/operator name: BYUNG WUK CHOE
Owner/operator address: 1015 W MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037
Owner/operator country: Not reported
Owner/operator telephone: (213) 731-2987
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

STOLEN BASE CLEANERS (Continued) **1000280171**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST:
Region: STATE
Global Id: T0603700906
Latitude: 34.0109323
Longitude: -118.292049
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/01/1998
Lead Agency: LOS ANGELES, CITY OF
Case Worker: EL
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370034
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: * Solvents
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700906
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700906
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

STOLEN BASE CLEANERS (Continued) **1000280171**

Status History:
Global Id: T0603700906
Status: Completed - Case Closed
Status Date: 12/01/1998

Global Id: T0603700906
Status: Open - Case Begin Date
Status Date: 10/19/1995

Global Id: T0603700906
Status: Open - Remediation
Status Date: 06/18/1996

Global Id: T0603700906
Status: Open - Remediation
Status Date: 12/12/1996

Global Id: T0603700906
Status: Open - Site Assessment
Status Date: 03/26/1996

Regulatory Activities:
Global Id: T0603700906
Action Type: Other
Date: 10/19/1995
Action: Leak Discovery

Global Id: T0603700906
Action Type: Other
Date: 10/19/1995
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370034
Status: Remediation Plan
Substance: Solvents
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700906
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: VERMONT AVE
Enforcement Type: Not reported
Date Leak Discovered: 10/19/1995
Date Leak First Reported: 10/19/1995
Date Leak Record Entered: 10/9/1996
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 6/18/1996

STOLEN BASE CLEANERS (Continued) **1000280171**

Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		3054.9858961168981716034506464
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		3/26/1996
Remediation Plan Submitted:		6/18/1996
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	DENMARST, LTD.	
RP Address:	819 SANTEE ST, LOS ANGELES CA 90014	
Program:	LUST	
Lat/Long:	34.0109323 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

SLIC REG 4:

Region:	4
Facility Status:	No further action required
SLIC:	0647
Substance:	VOCs
Staff:	Ana Velos

FINDS:

Registry ID: 110002769549

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STOLEN BASE CLEANERS (Continued) **1000280171**

STATE MASTER

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900370034

ECHO:
Envid: 1000280171
Registry ID: 110002769549
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002769549

F35 **MARA E C** **EDR Hist Auto** **1009077930**
SW **1010 W 40TH PL** **N/A**
< 1/8 **LOS ANGELES, CA**
0.098 mi.
520 ft. **Site 2 of 5 in cluster F**

Relative:
Lower

Actual:
169 ft.

EDR Historical Auto Stations:
Name: MARA E C
Year: 1933
Type: AUTOMOBILE REPAIRING

F36 **EDR Hist Cleaner** **1014968530**
WSW **1017 W MARTIN LUTHER KING J BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.099 mi.
523 ft. **Site 3 of 5 in cluster F**

Relative:
Lower

Actual:
170 ft.

EDR Historical Cleaners:
Name: COIN OPERATED LAUNDRY
Year: 1999
Address: 1017 W MARTIN LUTHER KING J BLVD

F37 **EDR Hist Cleaner** **1014968531**
WSW **1017 W MARTIN LUTHER KING JR BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.099 mi.
523 ft. **Site 4 of 5 in cluster F**

Relative:
Lower

Actual:
170 ft.

EDR Historical Cleaners:
Name: SPINCYCLE COIN LAUNDRY
Year: 2003
Address: 1017 W MARTIN LUTHER KING JR BLVD

Name: SPINCYCLE COIN LAUNDRY
Year: 2004
Address: 1017 W MARTIN LUTHER KING JR BLVD

E38 **GANSER TERESA MRS** **EDR Hist Cleaner** **1009188856**
South **4084 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.108 mi.
572 ft. **Site 2 of 2 in cluster E**

Relative:
Lower

Actual:
171 ft.

EDR Historical Cleaners:

Name:	GOSSARD G M
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	GANSER TERESA MRS
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS

F39 **LA CORVETTE WORKS** **RCRA-SQG** **1000180457**
WSW **1062 W MARTIN LUTHER KING** **FINDS** **CAD981999162**
1/8-1/4 **LOS ANGELES, CA 90037** **HAZNET**
0.143 mi. **ECHO**
757 ft. **Site 5 of 5 in cluster F**

Relative:
Lower

Actual:
168 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	LA CORVETTE WORKS
Facility address:	1062 W MARTIN LUTHER KING LOS ANGELES, CA 90037
EPA ID:	CAD981999162
Mailing address:	W MARTIN LUTHER KING LOS ANGELES, CA 90037
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	ERIC RUFFO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212

LA CORVETTE WORKS (Continued) **1000180457**

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002771965

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1000180457
Year: 2001
GEPAID: CAD981999162
Contact: --
Telephone: --
Mailing Name: Not reported
Mailing Address: 1062 W MARTIN LUTHER KING JR BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900371852
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: 0.22
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Los Angeles

envid: 1000180457

LA CORVETTE WORKS (Continued) **1000180457**

Year: 1999
GEPAID: CAD981999162
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1062 W MARTIN LUTHER KING JR BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900371852
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .2293
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Los Angeles

envid: 1000180457
Year: 1996
GEPAID: CAD981999162
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1062 W MARTIN LUTHER KING JR BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900371852
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .0625
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Los Angeles

envid: 1000180457
Year: 1993
GEPAID: CAD981999162
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1062 W MARTIN LUTHER KING JR BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900371852
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: 0.20849999999
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Los Angeles

ECHO:
Envid: 1000180457
Registry ID: 110002771965
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002771965

G40 **AMOS YU** **SWEEPS UST** **S101587603**
WSW **1100 W MARTIN LUTHER KING BLVD** **CA FID UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.170 mi.
895 ft. **Site 1 of 2 in cluster G**

Relative:
Lower

Actual:
168 ft.

SWEEPS UST:

Status:	Active
Comp Number:	4471
Number:	2
Board Of Equalization:	Not reported
Referral Date:	02-25-93
Action Date:	05-03-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	19055806
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1100 W MARTIN LUTHER KING BLV
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900370000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

---

41 **LA USD MANUAL ARTS HS** **RCRA-LQG** **1000427650**
South **4131 S VERMONT AVE** **FINDS** **CAD981979776**
1/8-1/4 **LOS ANGELES, CA 90037** **ECHO**
0.210 mi.
1111 ft.

Relative:
Lower

Actual:
168 ft.

RCRA-LQG:

Date form received by agency:	01/29/2008
Facility name:	LAUSD-MANUAL ARTS HIGH SCHOOL
Facility address:	4131 S VERMONT AVENUE LOS ANGELES, CA 90037
EPA ID:	CAD981979776
Mailing address:	333 S BEAUDRY AVE, 20TH FLOOR LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	Not reported

LA USD MANUAL ARTS HS (Continued) **1000427650**

Not reported
Contact country: US
Contact telephone: (213) 241-3199
Contact email: SOE.AUNG@LAUSD.NET
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Owner/operator address: 333 S BEAUDRY AVE, 20TH FLOOR
LOS ANGELES, CA 90017
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 07/03/1987
Owner/Op end date: Not reported

Owner/operator name: LAUSD-MANUAL ARTS HIGH SCHOOL
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 07/03/1987
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LA USD
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Owner

LA USD MANUAL ARTS HS (Continued) **1000427650**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D008
. Waste name: LEAD

Historical Generators:
Date form received by agency: 04/09/1987
Site name: LA USD MANUAL ARTS HS
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002763055

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

STATE MASTER

ECHO:
Envid: 1000427650
Registry ID: 110002763055
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002763055

G42 **TROJAN CLEANERS** **DRYCLEANERS** **S106167367**
WSW **1130 W MARTIN LUTHER KING JR BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.223 mi.
1175 ft. **Site 2 of 2 in cluster G**

Relative:
Lower

Actual:
166 ft.

DRYCLEANERS:

EPA Id:	CAL000232349
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	02/26/2002
Facility Active:	No
Inactive Date:	06/30/2003
Facility Addr2:	Not reported
Owner Name:	SUNG HUN OUM
Owner Address:	1130 W MARTIN LUTHER KING JR BLVD
Owner Address 2:	Not reported
Owner Telephone:	0000000000
Contact Name:	CHUNG HAN MOON
Contact Address:	1130 W MARTIN LUTHER KING JR BLVD
Contact Address 2:	Not reported
Contact Telephone:	2132936310
Mailing Name:	DHUNG HAN MOON/MGR
Mailing Address 1:	1130 W MARTIN LUTHER KING JR BLVD
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	900371810
Owner Fax:	Not reported
Region Code:	3

EPA Id:	CAL000294666
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	05/31/2005
Facility Active:	No
Inactive Date:	06/30/2015
Facility Addr2:	Not reported
Owner Name:	RAHIM PEDOOEM, MAHW SOUMEKIHAN &
Owner Address:	1130 W MARTIN LUTHER KING BLVD
Owner Address 2:	Not reported
Owner Telephone:	3232941561
Contact Name:	RAHIM PEDOOEM/PARTNER
Contact Address:	1130 W MARTIN LUTHER KING BLVD
Contact Address 2:	Not reported
Contact Telephone:	3232941561
Mailing Name:	Not reported
Mailing Address 1:	1130 W MARTIN LUTHER KING BLVD
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	900370000
Owner Fax:	0000000000
Region Code:	3

43
North
1/4-1/2
0.328 mi.
1732 ft.

ARCO FACILITY NO. 108
3775 VERMONT AVENUE
LOS ANGELES, CA 90007

LUST **S107472850**
N/A

Relative:
Higher

Actual:
174 ft.

LUST:

Region:	STATE
Global Id:	T0603729495
Latitude:	34.01781
Longitude:	-118.292023
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/06/2006
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	0025023
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603729495
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603729495
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603729495
Status:	Completed - Case Closed
Status Date:	04/06/2006

Global Id:	T0603729495
Status:	Open - Case Begin Date
Status Date:	06/13/1999

Global Id:	T0603729495
Status:	Open - Remediation
Status Date:	03/26/2003

Global Id:	T0603729495

ARCO FACILITY NO. 108 (Continued) **S107472850**

Status: Open - Site Assessment
Status Date: 01/09/2001

Global Id: T0603729495
Status: Open - Site Assessment
Status Date: 10/15/2005

Global Id: T0603729495
Status: Open - Verification Monitoring
Status Date: 10/15/2005

Regulatory Activities:
Global Id: T0603729495
Action Type: Other
Date: 06/13/1999
Action: Leak Discovery

Global Id: T0603729495
Action Type: ENFORCEMENT
Date: 04/06/2006
Action: Closure/No Further Action Letter - #1

Global Id: T0603729495
Action Type: Other
Date: 01/09/2001
Action: Leak Reported

44
South
1/4-1/2
0.335 mi.
1769 ft.

NIK CONSTRUCTION CO. **LUST** **S104572796**
4251-4261 S VERMONT AVE **N/A**
LOS ANGELES, CA 90044

Relative:
Lower

Actual:
166 ft.

LUST:
Region: STATE
Global Id: T0603788088
Latitude: 34.006028
Longitude: -118.291553
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/07/2013
Lead Agency: LOS ANGELES, CITY OF
Case Worker: EL
Local Agency: LOS ANGELES, CITY OF
RB Case Number: Not reported
LOC Case Number: XS0001650
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603788088
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG

NIK CONSTRUCTION CO. (Continued) **S104572796**

Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603788088
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603788088
Status: Completed - Case Closed
Status Date: 03/07/2013

Global Id: T0603788088
Status: Open - Case Begin Date
Status Date: 01/08/2000

Global Id: T0603788088
Status: Open - Site Assessment
Status Date: 08/04/2000

Regulatory Activities:
Global Id: T0603788088
Action Type: ENFORCEMENT
Date: 03/07/2013
Action: Closure/No Further Action Letter

Global Id: T0603788088
Action Type: Other
Date: 01/08/2000
Action: Leak Discovery

Global Id: T0603788088
Action Type: Other
Date: 05/05/2000
Action: Leak Reported

---

45 **UNOCAL #2059** **LUST** **S114458561**
North **3771 VERMONT AVE S** **N/A**
1/4-1/2 **LOS ANGELES, CA 90007**
0.384 mi.
2029 ft.

Relative:
Higher

Actual:
173 ft.

LUST:
Region: STATE
Global Id: T10000005368
Latitude: 34.020034
Longitude: -118.290559
Case Type: LUST Cleanup Site

UNOCAL #2059 (Continued) **S114458561**

Status:	Completed - Case Closed
Status Date:	09/25/1991
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T10000005368
Status:	Completed - Case Closed
Status Date:	09/25/1991
Global Id:	T10000005368
Status:	Open - Case Begin Date
Status Date:	07/01/1991

Regulatory Activities:

Global Id:	T10000005368
Action Type:	Other
Date:	07/01/1991
Action:	Leak Discovery
Global Id:	T10000005368
Action Type:	Other
Date:	07/01/1991
Action:	Leak Began
Global Id:	T10000005368
Action Type:	Other
Date:	07/01/1991
Action:	Leak Reported

---

46 **ARCO #3000** **LUST** **S102424235**
East **504 MARTIN LUTHER KING BLVD** **HIST CORTESE** **N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.421 mi.
2224 ft.

Relative:
Higher

Actual:
178 ft.

LUST:

Region:	STATE
Global Id:	T0603700904
Latitude:	34.0111264
Longitude:	-118.2827985
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/21/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900370016

ARCO #3000 (Continued) **S102424235**

LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700904
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700904
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700904
Status: Completed - Case Closed
Status Date: 08/21/1996

Global Id: T0603700904
Status: Open - Case Begin Date
Status Date: 04/13/1988

Global Id: T0603700904
Status: Open - Site Assessment
Status Date: 05/10/1991

Regulatory Activities:
Global Id: T0603700904
Action Type: Other
Date: 05/06/1991
Action: Leak Discovery

Global Id: T0603700904
Action Type: Other
Date: 04/13/1988
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles

ARCO #3000 (Continued) **S102424235**

Facility Id:	900370016	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700904	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	FIGUEROA	
Enforcement Type:	Not reported	
Date Leak Discovered:	5/6/1991	
Date Leak First Reported:		4/13/1988
Date Leak Record Entered:	4/13/1988	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/16/1996
Date the Case was Closed:		8/21/1996
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5531.28769368433609486154374 69
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		5/10/1991
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ARCO LEGAL	
RP Address:	1055 W 07TH ST.,P.O. BOX 2570, LOS ANGELES CA 90051	
Program:	LUST	
Lat/Long:	34.0109474 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	ASSIGNED CASE TO DK	

ARCO #3000 (Continued) **S102424235**

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900370016

H47 **MOBIL #11-LVC (FORMER)** **LUST U001561465**
West **1355 MARTIN LUTHER KING BLVD** **HIST UST N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.463 mi.
2447 ft. **Site 1 of 3 in cluster H**

Relative:
Lower

Actual:
159 ft.

LUST:
Region: STATE
Global Id: T0603700905
Latitude: 34.011173
Longitude: -118.299838
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/31/1997
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370025
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700905
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700905
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700905
Status: Completed - Case Closed
Status Date: 03/31/1997

Global Id: T0603700905

MOBIL #11-LVC (FORMER) (Continued) **U001561465**

Status: Open - Case Begin Date
Status Date: 09/08/1992

Global Id: T0603700905
Status: Open - Site Assessment
Status Date: 10/05/1992

Global Id: T0603700905
Status: Open - Site Assessment
Status Date: 04/15/1994

Global Id: T0603700905
Status: Open - Site Assessment
Status Date: 11/30/1995

Global Id: T0603700905
Status: Open - Verification Monitoring
Status Date: 03/01/1996

Regulatory Activities:
Global Id: T0603700905
Action Type: Other
Date: 09/08/1992
Action: Leak Discovery

Global Id: T0603700905
Action Type: Other
Date: 08/01/1994
Action: Leak Reported

HIST UST:
File Number: 00027E40
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027E40.pdf
Region: STATE
Facility ID: 00000039797
Facility Type: Gas Station
Other Type: Not reported
Contact Name: SAME
Telephone: 2132921967
Owner Name: MOBIL OIL CORP.
Owner Address: 612 S. FLOWER ST.
Owner City,St,Zip: LOS ANGELES, CA 90017
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 4

MOBIL #11-LVC (FORMER) (Continued) **U001561465**

Year Installed:	1982
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	1982
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	2
Year Installed:	1982
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

H48 **FORMER MOBIL SS#11-LVC** **LUST** **S102433613**
West **1355 MARTIN LUTHER KING BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.463 mi.
2447 ft. **Site 2 of 3 in cluster H**

Relative:
Lower

Actual:
159 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900370025	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700905	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	NORMANDIE	
Enforcement Type:	Not reported	
Date Leak Discovered:	9/8/1992	
Date Leak First Reported:		8/1/1994
Date Leak Record Entered:	1/19/1996	
Date Confirmation Began:	10/5/1992	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		3/31/1997
Date the Case was Closed:		3/31/1997
How Leak Discovered:	Tank Closure	

FORMER MOBIL SS#11-LVC (Continued) **S102433613**

How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: OLD CASE #960105-40
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 1898.588673040944277808601 9825
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 4/15/1994
Pollution Characterization Began: 11/30/1995
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: 3/1/1996
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: MOBIL BUSINESS RESOURCES CORP
RP Address: 3700 W 190TH ST, TORRANCE CA 90509
Program: LUST
Lat/Long: 34.0109452 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

SWEEPS UST:
Status: Not reported
Comp Number: 2054
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-002054-000001
Tank Status: Not reported
Capacity: 280
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 4

Status: Not reported
Comp Number: 2054
Number: Not reported
Board Of Equalization: 44-000400

FORMER MOBIL SS#11-LVC (Continued) **S102433613**

Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002054-000002
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	2054
Number:	Not reported
Board Of Equalization:	44-000400
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002054-000003
Tank Status:	Not reported
Capacity:	8000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	2054
Number:	Not reported
Board Of Equalization:	44-000400
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002054-000004
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

H49 **MOBIL #11-LVC (FORMER)** **HIST CORTESE** **S104576500**
West **1355 MARTIN LUTHER KING** **N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.463 mi.
2447 ft. **Site 3 of 3 in cluster H**

Relative:
Lower

Actual:
159 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900370025

50
ESE
1/4-1/2
0.468 mi.
2469 ft.

PENNY RECYCLING #2
4157 S FIGUEROA ST
LOS ANGELES, CA 90037

SWRCY **S107137614**
N/A

Relative:
Higher

Actual:
172 ft.

SWRCY:

Reg Id:	25208
Cert Id:	RC12221
Mailing Address:	1436 W Glenoaks Blvd Ste 125
Mailing City:	Glendale
Mailing State:	CA
Mailing Zip Code:	91201
Website:	Not reported
Email:	Not reported
Phone Number:	(818) 288-1393
Grand Father:	N
Rural:	N
Operation Begin Date:	05/21/2004
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 5:00 pm
Tuesday Hours Of Operation:	8:00 am - 5:00 pm
Wednesday Hours Of Operation:	8:00 am - 5:00 pm
Thursday Hours Of Operation:	8:00 am - 5:00 pm
Friday Hours Of Operation:	8:00 am - 5:00 pm
Saturday Hours Of Operation:	8:00 am - 5:00 pm
Sunday Hours Of Operation:	8:00 am - 1:00 pm
Organization ID:	19344
Organization Name:	Penny Recycling Center

51
South
1/2-1
0.505 mi.
2664 ft.

GENERAL PLATING CO
951 W VERNON AVE
LOS ANGELES, CA 90007

ENVIROSTOR **1000213804**
SWEEPS UST **N/A**
HIST UST
DEED
EMI
LA Co. Site Mitigation

Relative:
Lower

Actual:
164 ft.

ENVIROSTOR:

Facility ID:	71002760
Status:	Certified O&M - Land Use Restrictions Only
Status Date:	09/23/2013
Site Code:	300856
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	0.32
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Hamid Hashemian
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	59
Senate:	30
Special Program:	Not reported
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED

GENERAL PLATING CO (Continued) **1000213804**

Funding: Responsible Party
Latitude: 34.00369
Longitude: -118.2900
APN: NONE SPECIFIED
Past Use: DEGREASING FACILITY, FUEL TERMINALS
Potential COC: Arsenic Tetrachloroethylene (PCE Trichloroethylene (TCE Cadmium and compounds Chromium VI Nickel
Confirmed COC: Arsenic Tetrachloroethylene (PCE Cadmium and compounds Chromium VI Nickel Trichloroethylene (TCE
Potential Description: SOIL, SV
Alias Name: General Plating
Alias Type: Alternate Name
Alias Name: General Plating Company
Alias Type: Alternate Name
Alias Name: CAD981377971
Alias Type: EPA Identification Number
Alias Name: 300856
Alias Type: Project Code (Site Code)
Alias Name: 71002760
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other
Completed Date: 03/04/2015
Comments: LUC inspection Checklist

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 04/05/2016
Comments: Land Use Control Compliance Inspection Report 2015

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/30/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/26/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Proposal Approval
Completed Date: 03/08/2011
Comments: Not reported

GENERAL PLATING CO (Continued) **1000213804**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/27/2011
Comments: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/27/2011
Comments: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/16/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/30/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 03/30/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/12/2015
Comments: FY 1516 Annual Cost Estimate completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 11/24/2010
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 12/29/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption

GENERAL PLATING CO (Continued) **1000213804**

Completed Date: 03/08/2011
Comments: Project Manager: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 10/25/2010
Comments: First reminder letter sent for unpaid invoices.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 12/08/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Selection and Statement of Basis
Completed Date: 03/08/2011
Comments: Project Manager: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/02/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 06/26/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/29/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 04/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 09/23/2013
Comments: No Further Determination and the Acknowledgment of Satisfaction

GENERAL PLATING CO (Continued) **1000213804**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 07/08/2014
Comments: FY 1415 Annual Cost Estimate Letter sent.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 19340667
Status: Refer: Other Agency
Status Date: 08/31/1995
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Chatsworth
Assembly: 59
Senate: 30
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.00395
Longitude: -118.2902
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * Metals - Sludge * UNSPECIFIED SLUDGE WASTE * UNSPECIFIED SOLVENT MIXTURES Chromium VI Nickel
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD981377971
Alias Type: EPA Identification Number
Alias Name: 19340667
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/11/1983
Comments: FACILITY IDENTIFIED L. A. CHAM OF COMM BUS DIR 1969

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report

GENERAL PLATING CO (Continued) **1000213804**

Completed Date: 01/27/1988
Comments: ENFORCEMENT(OTHER) LOS ANGELES COUNTY-DHS PRELIM ASSESS DONE DHS RECOMMENDS SI MEDIUM ,CONTAMINATED SOIL HAS NOT BEEN REMOVED SITE HAS ALSO BEEN REFERED TO LOS ANGELES CO. HEALTH DEPT.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/07/1986
Comments: SITE SCREENING DONE PA RATIONALE: THERE ARE INDICATIONS OF THE PRESENCE AND POTENTIAL RELEASE OF HAZARDOUS WASTES; MORE INFO IS NEEDED.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWEEPS UST:
Status: Not reported
Comp Number: 5968
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: 0

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000050994
Facility Type: Other
Other Type: PLATING
Contact Name: DOUGLAS C. SMITH
Telephone: 2132349201
Owner Name: C.W. SMITH FAMILY INC. DBA GEN
Owner Address: 951 WEST VERNON AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90037
Total Tanks: 0002

Tank Num: 001

GENERAL PLATING CO (Continued) **1000213804**

Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000120
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00000360
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: None

DEED:
Envirostor ID: 71002760
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: TIERED PERMIT
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 04/30/2013

EMI:
Year: 2002
County Code: 19
Air Basin: SC
Facility ID: 80106
Air District Name: SC
SIC Code: 3471
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2003
County Code: 19
Air Basin: SC
Facility ID: 80106
Air District Name: SC
SIC Code: 3471
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1

GENERAL PLATING CO (Continued) **1000213804**

Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2004
County Code: 19
Air Basin: SC
Facility ID: 80106
Air District Name: SC
SIC Code: 3471
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.01739
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.00006394
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2005
County Code: 19
Air Basin: SC
Facility ID: 80106
Air District Name: SC
SIC Code: 3471
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .25525
Reactive Organic Gases Tons/Yr: .252409525
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .00062107
Part. Matter 10 Micrometers and Smllr Tons/Yr: .0001180033

LA Co. Site Mitigation:
Facility ID: FA0028142
Site ID: SD0010947
Jurisdiction: Not reported
Case ID: RO0010947
Abated: Yes
Assigned To: TK
Entered Date: Not reported
Abated Date: 01/01/1989

52
SSE
1/2-1
0.550 mi.
2902 ft.

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10
VERNON AVENUE BETWEEN ORCHARD AVENUE AND WESLEY AVENUE
LOS ANGELES, CA 90037

ENVIROSTOR
SCH

S109034324
N/A

Relative:
Lower

Actual:
165 ft.

ENVIROSTOR:

Facility ID:	60000890
Status:	Certified
Status Date:	10/26/2010
Site Code:	304604
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	3.96
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	59
Senate:	30
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.0032
Longitude:	-118.2883
APN:	5018-003-001
Past Use:	RESIDENTIAL AREA, RETAIL - SERVICE STATION, VEHICLE MAINTENANCE
Potential COC:	Under Investigation DDT Lead Toxaphene TPH-diesel Dieldrin
Confirmed COC:	30207-NO 30024-NO Under Investigation 30023-NO 30008-NO 30013-NO
Potential Description:	SOIL, SV
Alias Name:	5018-003-001
Alias Type:	APN
Alias Name:	304604
Alias Type:	Project Code (Site Code)
Alias Name:	60000890
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Master Agreement
Completed Date:	04/29/2008
Comments:	Rec'd documents for a PEA under the Master Agreement
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/18/2008
Comments:	The first site visit was conducted on June 5th as part of the PEA Scoping mtg. Fieldwork started on 6/10/2008, on 6/18/2008, DTSC conducted field oversight of the soil gas activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	09/17/2009
Comments:	Not reported

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10 (Continued) **S109034324**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/25/2010
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 10/26/2010
Comments: DTSC certified that response action according to the DTSC-approved RAW is complete.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 09/22/2009
Comments: received signed agreement from District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/17/2008
Comments: PEA Scoping Document was accepted by DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/22/2008
Comments: All the fielwork was completed and steo-outs were completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/24/2008
Comments: DTSC issued the PEA approval letter with further action. The Project will now move forward into an SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/17/2009
Comments: DTSC concurs that Further Action is required and approved the SSI Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 09/17/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/30/2010
Comments: Not reported

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10 (Continued) **S109034324**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 10/20/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/13/2010
Comments: Underground Storage Tank Closure Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/18/2010
Comments: TM - Soil Gas Survey of the Former UST Area

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/25/2009
Comments: Addt'l Site Characterization

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 60000890
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 3.96
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304604
Assembly: 59
Senate: 30
Special Program Status: Not reported
Status: Certified
Status Date: 10/26/2010
Restricted Use: NO
Funding: School District
Latitude: 34.0032

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10 (Continued) **S109034324**

Longitude:	-118.2883
APN:	5018-003-001
Past Use:	RESIDENTIAL AREA, RETAIL - SERVICE STATION, VEHICLE MAINTENANCE
Potential COC:	Under Investigation, DDT, Lead, Toxaphene, TPH-diesel, Dieldrin
Confirmed COC:	30207-NO, 30024-NO, Under Investigation, 30023-NO, 30008-NO, 30013-NO
	Not reported
Potential Description:	SOIL, SV
Alias Name:	5018-003-001
Alias Type:	APN
Alias Name:	304604
Alias Type:	Project Code (Site Code)
Alias Name:	60000890
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Master Agreement
Completed Date:	04/29/2008
Comments:	Rec'd documents for a PEA under the Master Agreement
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/18/2008
Comments:	The first site visit was conducted on June 5th as part of the PEA Scoping mtg. Fieldwork started on 6/10/2008, on 6/18/2008, DTSC conducted field oversight of the soil gas activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	09/17/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/25/2010
Comments:	DTSC prepared project close out Cost Recovery Unit Memorandum.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	10/26/2010
Comments:	DTSC certified that response action according to the DTSC-approved RAW is complete.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	09/22/2009
Comments:	received signed agreement from District
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	06/17/2008

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10 (Continued) **S109034324**

Comments: PEA Scoping Document was accepted by DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/22/2008
Comments: All the fielwork was completed and steo-outs were completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/24/2008
Comments: DTSC issued the PEA approval letter with further action. The Project will now move forward into an SSI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/17/2009
Comments: DTSC concurs that Further Action is required and approved the SSI Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 09/17/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 10/20/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/13/2010
Comments: Underground Storage Tank Closure Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/18/2010
Comments: TM - Soil Gas Survey of the Former UST Area

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/25/2009
Comments: Addt'l Site Characterization

PROPOSED SOUTH REGION ELEMENTARY SCHOOL #10 (Continued) **S109034324**

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

53
SSW
1/2-1
0.572 mi.
3020 ft.

BARTON-JONES CHEMICAL CO. **ENVIROSTOR** **S101480626**
1207 W. VERNON AVE **N/A**
LOS ANGELES, CA 90037

Relative:
Lower

Actual:
158 ft.

ENVIROSTOR:
Facility ID: 19280552
Status: No Further Action
Status Date: 11/07/1994
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Chatsworth
Assembly: 53
Senate: 24
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.04865
Longitude: -118.2921
APN: 5078028023
Past Use: NONE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: NMA
Alias Name: 5078028023
Alias Type: APN
Alias Name: CAD981373780
Alias Type: EPA Identification Number
Alias Name: 19280552
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 07/21/1982
Comments: FACILITY IDENTIFIED ID 1947 PAC. TELE. DIR. CHEMICALS.

Completed Area Name: PROJECT WIDE

BARTON-JONES CHEMICAL CO. (Continued) **S101480626**

Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/07/1994
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/08/1988
Comments: SITE SCREENING DONE PAL BASED ON LACK OF INFO

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 12/01/1985
Comments: VERY LITTLE INFO.MORE DETAIL INVEST NEED POSSIBLE CONTAMINATED SOIL DUE TO OPER. SUBMIT TO EPA PRELIM ASSESS DONE CERCLA 104

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

54
East
1/2-1
0.979 mi.
5168 ft.

ACCELERATED CHARTER ELEMENTARY SCHOOL (ACES) EXPANSION PROJE **ENVIROSTOR** **S111752595**
3843-3859 WOODLAWN AVE./3818-3918 S. MAIN ST. **SCH** **N/A**
LOS ANGELES, CA 90011

Relative:
Higher

Actual:
189 ft.

ENVIROSTOR:
Facility ID: 60001649
Status: No Further Action
Status Date: 09/11/2012
Site Code: 404876
Site Type: School Investigation
Site Type Detailed: School
Acres: 0.89
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Christine Chiu
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 46
Senate: 30
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.01130
Longitude: -118.2732
APN: 512-1029-005, 512-1029-006, 512-1029-007, 512-1029-014, 512-1029-015, 512-1029-902, 512-1029-903, 512-1029-904, 512-1029-905, 512-1029-906,

ACCELERATED CHARTER ELEMENTARY SCHOOL (ACES) EXPANSION PROJE (Continued) **S111752595**

512-1029-907, 512-1029-908, 512-1029-909, 512-1029-910, 512-1029-911, 5121-029-912, 5121-029-913

Past Use: EQUIPMENT/INSTRUMENT REPAIR, RESIDENTIAL AREA, TRANSPORTATION - WAREHOUSING
Potential COC: Lead
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: ACES
Alias Type: Alternate Name
Alias Name: 512-1029-005
Alias Type: APN
Alias Name: 512-1029-006
Alias Type: APN
Alias Name: 512-1029-007
Alias Type: APN
Alias Name: 512-1029-014
Alias Type: APN
Alias Name: 512-1029-015
Alias Type: APN
Alias Name: 512-1029-902
Alias Type: APN
Alias Name: 512-1029-903
Alias Type: APN
Alias Name: 512-1029-904
Alias Type: APN
Alias Name: 512-1029-905
Alias Type: APN
Alias Name: 512-1029-906
Alias Type: APN
Alias Name: 512-1029-907
Alias Type: APN
Alias Name: 512-1029-908
Alias Type: APN
Alias Name: 512-1029-909
Alias Type: APN
Alias Name: 512-1029-910
Alias Type: APN
Alias Name: 512-1029-911
Alias Type: APN
Alias Name: 5121-029-912
Alias Type: APN
Alias Name: 5121-029-913
Alias Type: APN
Alias Name: 404876
Alias Type: Project Code (Site Code)
Alias Name: 60001649
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/25/2012
Comments: On June 25, 2012, DTSC conducted a conference call with The Accelerated Schools discussing the project strategy, timeline, and Background Information. TAS indicated it will provide DTSC a letter indicating that the Background Information will be considered a PEA Equivalent Report and the public comment period for the PEA will

ACCELERATED CHARTER ELEMENTARY SCHOOL (ACES) EXPANSION PROJE (Continued) **S111752595**

commence.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/11/2012
Comments: On September 11, 2012, DTSC approved the PEA Equivalent Report with a No Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 05/14/2012
Comments: On May 14, 2012, the Environmental Oversight Agreement for implementation of a Preliminary Endangerment Assessment was fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/17/2012
Comments: On September 17, 2012, DTSC prepared project close out Cost Recovery Unit Memorandum.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 60001649
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.89
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Christine Chiu
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404876
Assembly: 46
Senate: 30
Special Program Status: Not reported
Status: No Further Action
Status Date: 09/11/2012
Restricted Use: NO
Funding: School District
Latitude: 34.01130

ACCELERATED CHARTER ELEMENTARY SCHOOL (ACES) EXPANSION PROJE (Continued) S111752595

Longitude:	-118.2732
APN:	512-1029-005, 512-1029-006, 512-1029-007, 512-1029-014, 512-1029-015, 512-1029-902, 512-1029-903, 512-1029-904, 512-1029-905, 512-1029-906, 512-1029-907, 512-1029-908, 512-1029-909, 512-1029-910, 512-1029-911, 5121-029-912, 5121-029-913
Past Use:	EQUIPMENT/INSTRUMENT REPAIR, RESIDENTIAL AREA, TRANSPORTATION - WAREHOUSING
Potential COC:	Lead
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	ACES
Alias Type:	Alternate Name
Alias Name:	512-1029-005
Alias Type:	APN
Alias Name:	512-1029-006
Alias Type:	APN
Alias Name:	512-1029-007
Alias Type:	APN
Alias Name:	512-1029-014
Alias Type:	APN
Alias Name:	512-1029-015
Alias Type:	APN
Alias Name:	512-1029-902
Alias Type:	APN
Alias Name:	512-1029-903
Alias Type:	APN
Alias Name:	512-1029-904
Alias Type:	APN
Alias Name:	512-1029-905
Alias Type:	APN
Alias Name:	512-1029-906
Alias Type:	APN
Alias Name:	512-1029-907
Alias Type:	APN
Alias Name:	512-1029-908
Alias Type:	APN
Alias Name:	512-1029-909
Alias Type:	APN
Alias Name:	512-1029-910
Alias Type:	APN
Alias Name:	512-1029-911
Alias Type:	APN
Alias Name:	5121-029-912
Alias Type:	APN
Alias Name:	5121-029-913
Alias Type:	APN
Alias Name:	404876
Alias Type:	Project Code (Site Code)
Alias Name:	60001649
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	06/25/2012
Comments:	On June 25, 2012, DTSC conducted a conference call with The Accelerated Schools discussing the project strategy, timeline, and

ACCELERATED CHARTER ELEMENTARY SCHOOL (ACES) EXPANSION PROJE (Continued) **S111752595**

Background Information. TAS indicated it will provide DTSC a letter indicating that the Background Information will be considered a PEA Equivalent Report and the public comment period for the PEA will commence.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/11/2012
Comments: On September 11, 2012, DTSC approved the PEA Equivalent Report with a No Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 05/14/2012
Comments: On May 14, 2012, the Environmental Oversight Agreement for implementation of a Preliminary Endangerment Assessment was fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/17/2012
Comments: On September 17, 2012, DTSC prepared project close out Cost Recovery Unit Memorandum.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 6 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES	S109422338	SOUTHERN CALIFORNIA DISPOSAL	186TH STREET AND VERMONT AVENU		SWF/LF
LOS ANGELES	S105628500	MANUAL ARTS NEW PRIMARY CENTER NO.	46TH STREET/SOUTH VERMONT AVEN	90037	ENVIROSTOR, SCH
LOS ANGELES	S107736972	ORTHOPEDIC HOSPITAL MAGNET HIGH SC	WEST ADAMS BOULEVARD/SOUTH GRA	90007	ENVIROSTOR, SCH
LOS ANGELES	S107736663	MANUAL ARTS NEW ELEMENTARY SCHOOL	JEFFERSON BOULEVARD/SOUTH CATA	90007	ENVIROSTOR, SCH
LOS ANGELES	S105628652	CALIFORNIA FASHION INDUSTRIES	MARTIN LUTHER KING BLVD/S. MAI	90037	ENVIROSTOR, SCH
LOS ANGELES	S105628622	JEFFERSON ELEMENTARY SCHOOL NO. 1	MARTIN LUTHER KING JR. BLVD./A	90011	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 93

Source: EPA
Telephone: N/A
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 93

Source: EPA
Telephone: N/A
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 93

Source: EPA
Telephone: N/A
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/18/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/15/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 50

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 01/04/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/20/2016
Date Data Arrived at EDR: 09/21/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 51

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/04/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 87

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 83

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/26/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/08/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/17/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 07/12/2016
Date Data Arrived at EDR: 08/17/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 11/18/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/27/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/17/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/17/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/03/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 16
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/23/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/07/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 148

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/01/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/12/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 65

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 12/05/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 52

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/10/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/19/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 12/16/2016
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/16/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 59

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/10/2016
Number of Days to Update: 47

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/11/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/24/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/14/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 6

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 09/08/2016
Date Data Arrived at EDR: 09/09/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 35

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/05/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 10/18/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 58

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/18/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/11/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 93
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 79
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 53

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 51

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 45
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 12/16/2016
Number of Days to Update: 73
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/19/2016
Number of Days to Update: 42
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 12/21/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 52
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/21/2016
Date Data Arrived at EDR: 09/22/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 26
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 60

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/15/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/27/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 55

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/06/2016
Date Made Active in Reports: 12/16/2016
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/27/2016
Date Data Arrived at EDR: 10/28/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 74

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/14/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 67
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 29
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 55
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 42
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 11/02/2016
Date Made Active in Reports: 01/04/2017
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

USC/PARKING LOTS 1 AND 1A
S VERMONT AVENUE AND MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037

TARGET PROPERTY COORDINATES

Latitude (North):	34.012061 - 34° 0' 43.42''
Longitude (West):	118.290807 - 118° 17' 26.91''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	380807.1
UTM Y (Meters):	3764050.0
Elevation:	172 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5630741 HOLLYWOOD, CA
Version Date:	2012
South Map:	5640440 INGLEWOOD, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

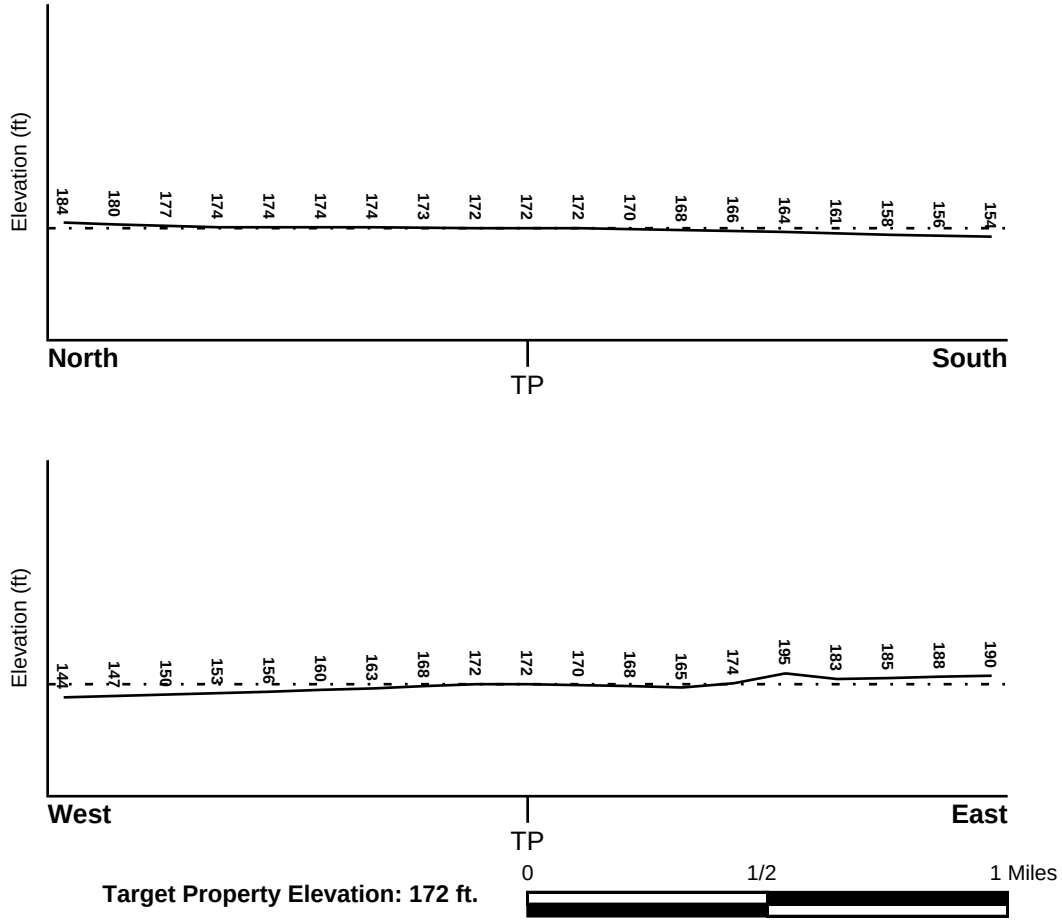
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06037C1620F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06037C1785F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HOLLYWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Surficial Soil Types:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Shallow Soil Types:
fine sandy loam
gravelly - loam
sand
silty clay

Deeper Soil Types:
stratified
clay loam
silty clay loam
gravelly - sandy loam
coarse sand
sand
weathered bedrock
very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000139789	1/2 - 1 Mile West
A3	USGS40000139790	1/2 - 1 Mile West
A4	USGS40000139791	1/2 - 1 Mile West
A5	USGS40000139786	1/2 - 1 Mile West
A6	USGS40000139787	1/2 - 1 Mile West
A7	USGS40000139788	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	2997	1/2 - 1 Mile WNW
A8	CADW60000003959	1/2 - 1 Mile West

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000205059	1/2 - 1 Mile ENE
2	CAOG11000204847	1/2 - 1 Mile North
3	CAOG11000205246	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 4831358.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	USC/Parking Lots 1 and 1A	CLIENT:	Converse Consultants
ADDRESS:	S Vermont Avenue and Martin Luther King Blvd Los Angeles CA 90037	CONTACT:	Laura Tanaka
LAT/LONG:	34.012061 / 118.290807	INQUIRY #:	4831358.2s
		DATE:	January 18, 2017 7:50 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
WNW
1/2 - 1 Mile
Lower

CA WELLS **2997**

Water System Information:

Prime Station Code:	02S/15W-11C02 S	User ID:	4TH
FRDS Number:	1910146009	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	340058.0 1181800.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	CHARNOCK WELL 17 - DESTROYED		
System Number:	1910146		
System Name:	SANTA MONICA-CITY, WATER DIVISION		
Organization That Operates System:			
	1212 FIFTH ST., 3RD FLOOR		
	SANTA MONICA, CA 90401		
Pop Served:	86905	Connections:	15905
Area Served:	SANTA MONICA		

A2
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139789**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182704		
Monloc name:	002S014W12E004S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	570
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A3
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139790**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182705		
Monloc name:	002S014W12E005S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	350
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A4
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139791**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182706		
Monloc name:	002S014W12E006S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	210
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A5
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139786**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182701		
Monloc name:	002S014W12E001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	1570
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A6
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139787**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182702		
Monloc name:	002S014W12E002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	895
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A7
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000139788**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340046118182703		
Monloc name:	002S014W12E003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0128611
Longitude:	-118.307611	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	144
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20100809	Welldepth:	725
Welldepth units:	ft	Wellholedepth:	1609.3
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A8
West
1/2 - 1 Mile
Lower

CA WELLS **CADW60000003959**

Objectid:	3959
Latitude:	34.012859
Longitude:	-118.307619
Site code:	340129N1183076W001
State well numbe:	02S14W12E004S
Local well name:	'LosAngeles3_4'
Well use id:	1
Well use descrip:	Observation
County id:	19
County name:	Los Angeles
Basin code:	'4-11.04'
Basin desc:	Central
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000003959

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
ENE
1/2 - 1 Mile

OIL_GAS **CAOG11000205059**

District nun:	1	Api number:	03705994
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	7
Township:	02S	Range:	13W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Sanborn Community 1-R D	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000205059		

2
North
1/2 - 1 Mile

OIL_GAS **CAOG11000204847**

District nun:	1	Api number:	03705689
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Las Cienegas
Area name:	Fourth Avenue	Section:	5
Township:	02S	Range:	13W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	University Community C.H.	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000204847		

3
NNE
1/2 - 1 Mile

OIL_GAS **CAOG11000205246**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

District nun:	1	Api number:	03706320
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	6
Township:	02S	Range:	13W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Dana Corehole	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000205246		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90037	3	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Agency Documents

Appendix G

Converse Project No. 17-42-106-01
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Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

January 20, 2017

Ms. Kristin Tsumura
Converse Consultants
3176 Pullman Street, Suite 108
Costa Mesa, CA 92626

3977, 3981, 3987, 3991 Menlo Avenue, Los Angeles, CA 90037
933 Martin Luther King Jr. Boulevard, Los Angeles, CA 90037
APNs: 5037-027-905, -924, -925, -926, -927, -928, -929, -930, -931, -932, -933, and -934
PR3-011917-03

Ms. Tsumura:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

We would also like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. Envirostor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view Envirostor.

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6521.

Sincerely,

Robert Hardison

Robert Hardison/aa
Regional Records Coordinator

Printed on Recycled Paper

Department of Toxic Substances Control

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

January 20, 2017

Ms. Kristin Tsumura
Converse Consultants
3176 Pullman Street, Suite 108
Costa Mesa, CA 92626

3952, 3954, 3960, 3962, 3964, 3966, 3968, 3972, 3976, 3980, 3984, 3986, 3990, 3992, 3994, 3996, 3998 South Vermont Avenue, Los Angeles, CA 90037
901, 915, 921-931 (odds), 935-939 (odds) West Santa Barbara Avenue, Los Angeles, Ca 90037
901, 915, 921-931 (odds), 935-939 (odds) Martin Luther King Jr. Boulevard, Los Angeles, CA 90037
PR3-011917-04

Ms. Tsumura:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

We would also like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. Envirostor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view Envirostor.

Printed on Recycled Paper

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6521.

Sincerely,

Robert Hardison

Robert Hardison/aa
Regional Records Coordinator

Kristin Tsumura

From: Gallardo, Laura@Waterboards <Laura.Gallardo@waterboards.ca.gov> on behalf of WB-RB4-PublicRecords <RB4-PublicRecords.RB4-PublicRecords@waterboards.ca.gov>
Sent: Tuesday, January 31, 2017 2:16 PM
To: Kristin Tsumura
Cc: Gallardo, Laura@Waterboards
Subject: RE: public record requests/Tracking No 2017011906

The Regional Board has reviewed its files and has concluded that it does not have any records that are responsive to your request.

From: Kristin Tsumura [mailto:KTsumura@ConverseConsultants.com]
Sent: Thursday, January 19, 2017 10:31 AM
To: WB-RB4-PublicRecords
Subject: public record requests

Good morning,

Please see the attached records requests for the following APNs and historic addresses:

USC Parking Lots 1 and 1A
APNs: 5037-027-905, -924, -925, -926, -927, -928, -929, -930, -931, -932, -933, and -934
3977, 34981, 3987, 3991 Menlo Avenue
901 and 933 Martin Luther King Boulevard
3990 South Vermont Avenue
Los Angeles, California 90037

USC Parking Lots 1 and 1A

- 3952, 3954, 3960, 3962,3964, 3966, 3968, 3972, 3976, 3980, 3984, 3986, 3990, 3992, 3994, 3996, 3998 South Vermont Avenue
- 901, 915, 921-931 (odds), 935-939 (odds) West Santa Barbara Avenue
- 901, 915, 921-931 (odds), 935-939 (odds) Martin Luther King Jr. Boulevard

Los Angeles, California 90037

Kristin Tsumura
Staff Environmental Scientist

CONVERSE CONSULTANTS
3176 PULLMAN STREET, SUITE 108
COSTA MESA, CALIFORNIA 92626
OFFICE: 714.444.9660
CELL: 714.872.0264
FAX: 714.444.9640

The information contained in this e-mail message (including attachments) is intended only for the personal and confidential use of the recipient(s) named above. This message (including attachments) may be work product and as such is privileged and confidential. If the reader of this message is not the intended recipient or agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately by e-mail, and delete the original message.

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

COMPLETION LETTER

January 20, 2017

KRISTIN TSUMURA
CONVERSE CONSULTANTS
3176 PULLMAN AVE.# 108
COSTA MESA, CA 92626

Ref.: CONTROL NO. 88911
Received 1/19/2017

Re: P/O'S, NOV'S, & I/R'S FOR 3990-3998 SOUTH VERMONT AVE., LOS ANGELES, CA 90037, (1/1/1917-1/19/2017).

After a thorough search of this agency's records, the following records were found:
P/O'S, NOV'S, & I/R'S FOR 3990-3998 SOUTH VERMONT AVE., LOS ANGELES, CA 90037, (1/1/1917-1/19/2017).

YOUR REQUESTED RECORDS WERE PROVIDED ELECTRONICALLY ON 01/20/2017

If you have any questions, please do not hesitate to contact me, Tuesday through Friday, **8:00 a.m**. to **4:30 p.m.**

Sincerely,

LORA TRAPP x2854
For COLLEEN PAINE
Public Records Coordinator

:lt

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PERMIT to OPERATE

9150 FLAIR DRIVE, EL MONTE, CALIFORNIA 91731

PERMIT NO.
M82577

Operation under this permit must be conducted in compliance with all information included with the initial application and the initial permit conditions. The equipment must be properly maintained and kept in good operating condition at all times. In accordance with Rule 206, this Permit to Operate or copy must be posted on or within 6 meters of equipment.

APPL. # 106928 CO. ID. 038071
SECTOR

LEGAL OWNER OR OPERATOR: AL-SAL OIL CO.
933 MARTIN LURTHER KING JR.BL.

EQUIPMENT LOCATED AT: LOS ANGELES, CA

EQUIPMENT DESCRIPTION AND CONDITIONS:

R461 GASOLINE FUELING & DISPENSING FACILITY CONSISTING OF :
1. 04 GASOLINE STORAGE TANKS
2. 16 GAS DISPENSING NOZZLES
3. 03 VAPOR RECOVERY SYSTEM - HASSTECH

PERMIT CONDITION:
PHASE I AND PHASE II VAPOR RECOVERY SYSTEMS MUST BE IN FULL OPERATION, WHENEVER THIS FACILITY IS IN USE. SUCH SYSTEMS MUST BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CARB CERTIFICATION REQUIREMENTS.

This initial permit must be renewed by 8/1 ANNUALLY unless the equipment is moved, or changes ownership. If billing for annual operating fee is not received by expiration date, contact office above.

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the Rules of the Air Quality Management District. This permit cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other government agencies.

EXECUTIVE OFFICER

BY VIRGINIA MOY, PRINCIPAL
PERMIT PROCESS CLERK

DATE 08/08/84

76P234M - 6/82

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PERMIT to CONSTRUCT/OPERATE

9150 FLAIR DRIVE, EL MONTE, CALIFORNIA 91731

PERMIT NO.
M93122
A/N 214660
PAGE 1

This initial permit must be renewed by 8/1 ANNUALLY unless the equipment is moved, or changes ownership. If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner or Operator: AL-SAL OIL CO, KWIK GAS #19

CO. ID.: 038071 SECTOR: LH

Equipment Located At: 3996 S VERMONT/MARTIN L KING
LOS ANGELES, CA 900370000

Equipment Description:
Fuel Storage and Dispensing Facility Consisting of:

1. FOUR	UNDERGROUND GASOLINE STORAGE TANK(S), (EACH) 20,000 GALLON CAPACITY, NOT METHANOL COMPATIBLE
2. SIXTEEN	GASOLINE DISPENSING NOZZLES VENTED TO VAPOR RECOVERY SYSTEM, HASSTECH
3. ONE	UNDERGROUND DIESEL STORAGE TANK(S), (EACH) 20,000 GALLON CAPACITY, NOT METHANOL COMPATIBLE
4. TWO	DIESEL DISPENSING NOZZLES.

PERMIT CONDITIONS:

1. Operation of this equipment must be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

2. This equipment must be properly maintained and kept in good operating condition at all times.

3. (Except for Diesel transfers) Phase I and Phase II Vapor Recovery Systems must be in full operation whenever this facility is in use. Such systems must be installed, operated and maintained to meet all CARB certification requirements.

This Permit concludes on the next page.

FILE COPY

PERMIT to CONSTRUCT/OPERATE

9150 FLAIR DRIVE, EL MONTE, CALIFORNIA 91731

Continuation of Permit to Construct/Operate

NOTICE

In accordance with RULE 206, this permit to construct/operate or copy must be posted on or within 8 meters of the equipment.

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 26 of the Health and safety code of the State of California or the rules of the Air Quality Management District. This permit cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other government agencies.

Approval of the Department of Public Works, the Department of Building and Safety, the local Fire Department and/or the local tank law implementing agency is required before construction is started.

This permit to construct/operate is based on the plans, specifications, and data submitted as it pertains to the release of air contaminants and control measures to reduce air contaminants. No approval or opinion concerning safety and other factors in design, construction or operation of the equipment is expressed or implied.

Executive Officer

By Raquel Puerta
02/24/90

FILE COPY

MAILING ADDRESS:
AL-SAL OIL CO, KWIK GAS #19
5121 SUNSET BL

LOS ANGELES, CA 900270

DATE: 02/24/90
ID: 038071
SECTOR: LH

SCAQMD Facility Equipment List Report

Facility: 38071 AL-SAL OIL CO, KWIK GAS #19 Status: Out of Business MR: SIC: 5541 Team:
Last Inspection: 06/14/2002 On Hold: N Suspended: N TS: TS-09 Non-inspection: Potential Inactivations (From Quarter: 0100 - inspect in 2nd quarter, every year
Contact: RECLAIM: N TITLE V: N AIRS ID: Assignment: 712126
Location Address: 3996 S VERMONT AVE, LOS ANGELES 90037-1941 Sector:WK Inspector: AK05 ARSLAN KHAN
Mailing Address: 3410 E FOOTHILL BLVD, PASADENA 91107-3113 Sector:CF Inspection Date: 06/14/2002
Instruction: Disposition: Not Operating - Equipment Removed

Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category		BCAT/CCAT Description	Application Date	Application Status
106928	M82577	08/08/1984	INACTIVE	85	CCAT	NH3 & LOW NOX BURNERS	08/11/1982	PERMIT TO OPERATE GRANTED
106928	M82577	08/08/1984	INACTIVE	248915	BCAT	SERV STAT STORAGE & DISPENSING GASOLINE	08/11/1982	PERMIT TO OPERATE GRANTED
214660	M93122	02/24/1990	INACTIVE	85	CCAT	NH3 & LOW NOX BURNERS	11/02/1989	PERMIT TO OPERATE GRANTED
214660	M93122	02/24/1990	INACTIVE	248915	BCAT	SERV STAT STORAGE & DISPENSING GASOLINE	11/02/1989	PERMIT TO OPERATE GRANTED

REPORT: Out of Business

Inspector: _____ Date: _____ Reviewed By: _____ Date: _____

South Coast Air Quality Management District

NOV Z37962

Run Date : 1/19/2017 13:52:31

Company

Facility:	AL-SAL OIL CO (ID: 38071)
Location Address:	5121 SUNSET, BLVD LOS ANGELES
Mailing Address:	5121 SUNSET, BLVD LOS ANGELES, CA 90027
AIRS ID	

Violation

Notice Issued Date:	7/14/1988
Violation Date:	7/14/1988
Serve To:	
Title:	MARIO RENE
Issue By:	JIAYUAN LI (Team: IM)
Assignment No.:	539822
Equipment Description:	GASOLINE DISPENSING EQUIP

Violation:

Disposition

Final Action Code:	CLO 11/1/1988 00:00:00
Achieved Date:	
Due Date:	
Violation Days:	0

Rule/Comment

461 FAILURE TO MAINTAIN

Emittent

Follow-Up

Status: Inspector ID: Inspection Date: Number:

Lap Sample Numbers

Device IDs.

Inspector Comment

INSPECTOR: _____ DATE: _____

signature

SUPERVISOR: _____ DATE: _____

signature

User ID: ltrapp

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

COMPLETION LETTER

January 20, 2017

KRISTIN TSUMURA
CONVERSE CONSULTANTS
3176 PULLMAN AVE.# 108
COSTA MESA, CA 92626

Ref.: CONTROL NO. 88907
Received 1/19/2017

Re: P/O'S, NOV'S, & I/R'S FOR USC PARKING LOTS 1 & 1A, AT 3977, 3981, 3987, & 3997 MENLO AVENUE, LOS ANGELES, CA 90037, FROM 01/01/1917 TO 01/19/2017.

After a thorough search of this agency's records:

NO REQUESTED RECORDS WERE FOUND FOR THE ABOVE-REFERENCED FACILITY OR FACILITY SITE.

If you have any questions, please do not hesitate to contact me, Tuesday through Friday, **8:00 a.m**. to **4:30 p.m.**

Sincerely,

STACEY WALKOWIAK x2383
For COLLEEN PAINE
Public Records Coordinator

:sw

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

COMPLETION LETTER

January 20, 2017

KRISTIN TSUMURA
CONVERSE CONSULTANTS
3176 PULLMAN AVE.# 108
COSTA MESA, CA 92626

Ref.: CONTROL NO. 88908
Received 1/19/2017

Re: P/O'S, NOV'S, & I/R'S FOR 901, 915, & 921-939 (ODD) MARTIN LUTHER KING JR. BOULEVARD, LOS ANGELES, CA 90037, FROM 01/01/1917 TO 01/19/2017.

After a thorough search of this agency's records:

NO REQUESTED RECORDS WERE FOUND FOR THE ABOVE-REFERENCED FACILITY OR FACILITY SITE.

If you have any questions, please do not hesitate to contact me, Tuesday through Friday, **8:00 a.m**. to **4:30 p.m.**

Sincerely,

STACEY WALKOWIAK x2383
For COLLEEN PAINE
Public Records Coordinator

:sw

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

COMPLETION LETTER

January 20, 2017

KRISTIN TSUMURA
CONVERSE CONSULTANTS
3176 PULLMAN AVE.# 108
COSTA MESA, CA 92626

Ref.: CONTROL NO. 88909
Received 1/19/2017

Re: P/O'S, NOV'S, I/R'S FOR 3952-3954, 3960-3986 (EVENS) SOUTH VERMONT AVENUE, LOS ANGELES, CA 90037, FROM 01/01/1917 TO 01/19/2017.

After a thorough search of this agency's records:

NO REQUESTED RECORDS WERE FOUND FOR THE ABOVE-REFERENCED FACILITY OR FACILITY SITE.

If you have any questions, please do not hesitate to contact me, Tuesday through Friday, **8:00 a.m**. to **4:30 p.m.**

Sincerely,

STACEY WALKOWIAK x2383
For COLLEEN PAINE
Public Records Coordinator

:sw

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

January 20, 2017

KRISTIN TSUMURA
CONVERSE CONSULTANTS
3176 PULLMAN AVE., # 108
COSTA MESA, CA 92626

Ref.: CONTROL NO: 88906

P/O'S, NOV'S, & I/R'S FOR USC LOTS 1 & 1A AT APNS: 5037-027-905, -924, -925, -926, -927, -928, -929, -930, -931, -932, & -933, LOS ANGELES, CA 90037, FROM 01/01/1917 TO 01/19/2017.

This is in regard to your public records request dated January 19, 2017. The District is unable to process your request as submitted because the record you have requested:
CANNOT BE SEARCHED BY TRACT, LOT OR PARCEL NUMBERS. PLEASE SUBMIT WITH SPECIFICS (I.E. FACILITY I.D. NUMBER, FACILITY NAME, FACILITY ADDRESS, PERMIT OR APPLICATION NUMBER).
If you have any questions, please do not hesitate to contact me at (909) 396-2311.

Sincerely,

STACEY WALKOWIAK x2383
For COLLEEN PAINE
Public Records Coordinator

:sw

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS MEMBERS

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ASSISTANT DIRECTORS

INDUSTRIAL WASTE MANAGEMENT DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
OFFICE: (323) 342-6200
FAX: (323) 342-6111

19-Jan-17

Kristin Tsumura

Converse Consultants

3176 Pullman Street, Suite 108,

Costa Mesa, CA 92626

INDUSTRIAL WASTEWATER DISCHARGE PERMIT INFORMATION

Your request to research our files for Industrial Wastewater Discharge permit information was done by my staff. Our records show the following findings:

[X] No permit on file for: **3977, 3981, 3987, 3991 Menlo Avenue,**
901 Martin Luther King Boulevard,
3990 South Vermont Avenue,
Los Angeles, CA 90037

[X] Permits have been issued for: **933 Martin Luther King Boulevard, Los Angeles, CA 90037**

(see attachments)

[V] No citations have been issued for the past 5 years. [ ] Yes, citations have been issued (see attachments).

The cost of generating this report is $ **$1.10**

Please remit a check in the above amount, payable to "Department of Public Works", and mail to:

Bureau of Sanitation

Industrial Waste Management Division

2714 Media Center Drive

Los Angeles, CA 90065

Attn: Admin Inspection Group

If you have any questions, please contact Adrienne Tong of my staff at (323) 342-6062.

Sincerely,

ENRIQUE C. ZALDIVAR, Director

Bureau of Sanitation

By: Bellete W. Yohannes

Bellete Yohannes, Chief Env. Compliance Inspector II

Industrial Waste Management Division

C: Attachment [X] yes [ ] no

Adrienne Tong

RECEIVED SEP 28 1964

MAIL TO:
IND. WASTE ENGR.
SEWER MAINT. DIV.
ROOM 750, CITY HALL
LOS ANGELES, CALIF., 90012

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SANITATION

MAdison 4-5211
Ext. 1758

RECEIVED OCT 29 1964

Bath & Wash

APPLICATION FOR INDUSTRIAL WASTE PERMIT

See Reverse Side for Fee Schedule

W-26713

1. Firm Name: Texaco Inc. 2. Type of Business: Service Station (04)
3. Installation Address: 933 W. Santa Barbara AVE. LA 90037
   Number & St. Zone Phone
4. Mailing Address: 3350 Wilshire Blvd. L.A. 90005, Calif
   Number & St. City Zone State
5. Processes discharging liquid wastes: Car Washing (33)
   + FLOOR WASHING (72)
6. Chemical and physical characteristics of above waste discharge:
   Soap + Detergent
7. Name of Applicant or Representative of Firm: B. TALLIS Title: ENGINEER
   Printed
   Signature: Barrie B Tallis Date: Sept 21/64

NOV 5 1964

OVER DO NOT WRITE BELOW THIS LINE --- FOR OFFICE USE ONLY OVER

(X) New ( ) Revision or Addition ( ) Change of Ownership

8. Discharge will be to: (X) Sewer ( ) S.D. ( ) Watercourse - Other ( )
   Size and Location: 8-INCH CLAY PIPE SEWER IN THAT ST (11)
9. Flow Characteristics: Max. Flow 5-10 gpm: Total Flow 150 gpd. ( ) Garb. Grinder
   Make Model
10. Required Treatment: CLARIFICATION (02)
11. Required Treatment Facility: 3 cc 6'x2'x2' RI (12) Seating Capacity
    Meals Served
12. Additional Information:
    Garbage Gallons
    Grease Trap ( ) Yes ( ) No
13. Class 1 District 4 Submitted by Inspector Earl M. Jones
14. Recommended by: Robert A. Lee Date: 10/23/64
    Sr. Industrial Waste Inspector
15. Applicant (Line 7) _____ Date: _____
    Signature
16. Approved: JKB Date: 11-9-64
    Industrial Waste Engineer
17. APPLICANT: A permit is issued subject to conditions shown hereon and is revocable for non-compliance at any time with the regulating provisions of the Los Angeles Municipal Code or any policy of the Board of Public Works adopted pursuant thereto.

OVER

SOUTH

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS MEMBERS

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LEO N. MARTINEZ
ROBERT B. IRVIN (ACTING
ASSISTANT DIRECTORS

INDUSTRIAL WASTE MANAGEMENT DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
OFFICE: (323) 342-6200
FAX: (323) 342-6111

19-Jan-17

Kristin Tsumura

Converse Consultants

3176 Pullman Street, Suite 108,

Costa Mesa, CA 92626

INDUSTRIAL WASTEWATER DISCHARGE PERMIT INFORMATION

Your request to research our files for Industrial Wastewater Discharge permit information was done by my staff. Our records show the following findings:

[X] No permit on file for: **3952, 3954, 3960, 3962, 3964, 3966, 3968, 3972, 3976, 3980, 3984, 3986, 3990, 3992, 3994, 3996, 3995 South Vermont Avenue, 901, 915, 921-929 (odds), 935-939 (odds) West Martin Luther King Jr. Blvd (formerly West Santa Barbara Ave),**

[X] Permits have been issued for: **931 West Santa Barbara Ave, Los Angeles, CA 90037**

(see attachments)

[✓] No citations have been issued for the past 5 years. [ ] Yes, citations have been issued (see attachments).

The cost of generating this report is $ **$1.10**

Please remit a check in the above amount, payable to "Department of Public Works", and mail to:

Bureau of Sanitation

Industrial Waste Management Division

2714 Media Center Drive

Los Angeles, CA 90065

Attn: Admin Inspection Group

If you have any questions, please contact Adrienne Tong of my staff at (323) 342-6062.

Sincerely,

ENRIQUE C. ZALDIVAR, Director

Bureau of Sanitation

By: Bellete W. Yohannes

Bellete Yohannes, Chief Env. Compliance Inspector II

Industrial Waste Management Division

C: Attachment [X] yes [ ] no

Adrienne Tong

Form 1101

Previous Permit Cancelled For Non-Payment W 26713

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SANITATION
INDUSTRIAL WASTE CONTROL SECTION

Fee: $96.86

PHONE 485-5886

APPLICATION FOR INDUSTRIAL WASTE PERMIT

(Submit in Duplicate)

W38642
W-Number

1. Firm Name: ENRIQUE PATRON / Texaco
2. Type of Business: TEXACO STATION
3. Installation Address: 931 W. SANTA BARBARA AVE. L.A., CA. PHONE 731-4705
   NUMBER & STREET
4. Mailing Address: — SAME L.A. Calif 90037
   NUMBER & STREET CITY STATE ZIP CODE
5. Processes Involved: R.G. FLOOR WASHING
6. Chemical and physical characteristics of waste discharge: DIRTY WATER SOAP + DETERGENT OIL + GREASE
7. Name of Applicant or Representative of Firm: RICKY PATRON TEXACO SERVICE (PLEASE PRINT)
   Signature: Enrique Patron Date: 3-25-74

DO NOT WRITE BELOW THIS LINE

8. Size and location of sewer, ~~S.D. or other~~: 8" CPS IN SANTA BARBARA AVE.
9. Waste Processes: (77) ( ) ( ) ( ) ( ) FLOOR WASHING
10. Required Treatment: (02) ( ) ( ) CLARIFICATION
11. Required Treatment Facility: (12) ( ) 3CC ( ) 6'x2'x2'
12. Additional Information: FORMER PERMIT W 26713 BI CANCELLED NON - PAY

DO NOT WRITE IN THIS SPACE

New	X
Revision	
Change of Ownership	
Sewer	1
S.D.	
Watercourse	
Other	
G. G.	
Seats:	
Grease Trap	
Max. gpm	1
Total gpd	45 EST. 1
Sec. 64.30	X
Sec. 64.31	
Industrial Class	112
Inspection Frequency	1
Date Entered	3-29-74
District	4

13. Submitted by Inspector: Bernard W. Gardon Date: 3-28-74
14. Recommended by Senior Inspector: (Acting Sr) Bartholomew Date: 3-29-74
15. Approved by Principal Inspector: [illegible] Date: 4-17-74

16. APPLICANT: A permit is issued subject to conditions shown hereon and is revocable at any time for non-compliance with the regulating provisions of the Los Angeles Municipal Code or any policy of the Board of Public Works adopted pursuant thereto.

MAIL TO: 2335 Dorris Place, Los Angeles, California 90031
(SEE ATTACHED SHEET FOR FEE SCHEDULE)

B. W. GARDON

South

3

APPLICATION TO ALTER - REPAIR - DEMOLISH
AND FOR CERTIFICATE OF OCCUPANCY

B&S Form B-3

CITY OF LOS ANGELES — DEPT. OF BUILDING AND SAFETY

No 505 **INSTRUCTIONS:** 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.

1. LEGAL DESCR.	LOT 9 & 10	BLK.	TRACT 2411	ADDRESS APPROVED L.D.
2. BUILDING ADDRESS 923-39 W. Santa Barbara & 3992-98 S.Vermont				DIST. MAP 4279
3. BETWEEN CROSS STREETS Vermont AND Menlo				ZONE C2--1-O
4. PRESENT USE OF BUILDING Stores.	NEW USE OF BUILDING (50) demo			FIRE DIST. II
5. OWNER'S NAME Texaco Oil Co.	PHONE			INSIDE KEY /
6. OWNER'S ADDRESS	P. O.	ZONE		COR. LOT XXX REV. COR.
7. CERT. ARCH.	STATE LICENSE	PHONE		LOT SIZE Irreg.
8. LIC. ENGR.	STATE LICENSE	PHONE		
9. CONTRACTOR Rosenthal Wrecking	STATE LICENSE C-21 150147	PHONE PI87354		REAR ALLEY 20 SIDE ALLEY
10. CONTRACTOR'S ADDRESS 726 E. Manchester	P. O.	ZONE		BLDG. LINE 20' San. Bar.
11. SIZE OF EXISTING BLDG. 100x125	STORIES 1	HEIGHT 14	NO. OF EXISTING BUILDINGS ON LOT AND USE 1	BLDG. AREA
3 923-39 W.Santa Barbara 3992-98 S.Vermont				DISTRICT OFFICE L.A.
12. MATERIAL EXT. WALLS: ☒ WOOD ☐ METAL ☐ CONC. BLOCK ☒ STUCCO ☒ BRICK ☐ CONCRETE		ROOF CONST. ☒ WOOD ☐ STEEL ☐ CONC. ☐ OTHER	ROOFING	SPRINKLERS REQ'D. SPECIFIED
13. VALUATION: TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING. $ 4,400				VALUATION APPROVED / AFFIDAVITS
14. SIZE OF ADDITION	STORIES	HEIGHT		APPLICATION CHECKED Hirata
15. NEW WORK: (Describe)	EXT. WALLS	ROOFING		PLANS CHECKED / DWELL. UNITS 10
				CORRECTIONS VERIFIED / SPACES PARKING NE
				PLANS APPROVED / GUEST ROOMS
				APPLICATION APPROVED / FILE WITH
				INSPECTOR / CONT. INSP.

Demo SC# 39697

I certify that in doing the work authorized hereby I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance, and I have read reverse side of Application.

Signed Leslie Rosenthal

This Form When Properly Validated is a Permit to Do the Work Described.

TYPE	GROUP	MAX. OCC.	P.C.	S.P.C.	G.P.I.	B.P.	I.F.	O.S.	C/O
III A	G-1		—	—	—	19.60	/		

CRITICAL SOIL

SEWER (Available)

CASHIER'S USE ONLY

AUG-11-64 39697 S •73467 Z — 1 CK 19.60

P.C. No. ____ GRADING / CRIT. SOIL / CONS. /

LEGAL DESCRIPTION

ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND USE OF EACH

Bldg to be hand Wreck
No Basement.

SCOPE OF PERMIT

"This permit is an application file [illegible], the issuance of which is not an approval or an authorization of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)

...'S COMP. CERTIFICATE EXEMPT ✓ ON FILE

G CITY OF LOS ANGELES

APPLICATION FOR INSPECTION OF GRADING AND FOR GRADING CERTIFICATE

DEPT. OF BUILDING AND SAFETY

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.

1. LEGAL DESCR.	LOT: 10	BLK.	TRACT: 2411	DIST. MAP: 712 79 / CENSUS TRACT: 2312.00
2. PURPOSE OF GRADING: '60' removing underxxground tanks				ZONE: C2-1-O
3. JOB ADDRESS: 931 W. Santa Barbara				FIRE DIST.: two
4. BETWEEN CROSS STREETS: Vermont	AND: Hoover			LOT (TYPE): cor.
5. OWNER'S NAME: Texaco Oil Co.		PHONE: 986-9880		LOT SIZE: irreg.
6. OWNER'S ADDRESS: ~~X~~ 16055 Ventura Blvd.	CITY: Encino	ZIP		
7. PLANS BY CIVIL ENGR.: owner	BUS. LIC NO	ACTIVE STATE LIC. NO.	PHONE	ALLEY: 20'R
8. SOIL ENGR. — TESTING AGENCY: Foundation Engineers	BUS. LIC. NO.	ACTIVE STATE LIC. NO.: 873-5032	PHONE	BLDG. LINE: 15'BL(Vary)
9. ENGR. GEOLOGIST	BUS. LIC. NO.	ACTIVE STATE LIC. NO./Cert No.	PHONE	AFFIDAVITS: ord.115173 ZI 439
10. CONTRACTOR: J.D. Brodinge & Son	BUS. LIC. NO.	ACTIVE STATE LIC. NO.: 278027	PHONE: 684-1140 *	
11. CONTRACTOR'S ADDRESS: 1400 Arrow Highway	CITY: Irwindale	ZIP: 91706		
12. BRANCH LENDER	ADDRESS	CITY		

G 13. JOB ADDRESS: 931 Santa Barbara (West) — DIST. OFFICE: LA

14. NUMBER OF CUBIC YARDS	CUT	FILL: 100yds.	CRIT. SOIL: /
15. MAXIMUM SLOPE CUT FILL	COMPACTED FILLS YES X NO	RETAINING WALL REQUIRED YES NO	GRADING: /
		YARDAGE APPROVED	HIGHWAY DED.: yes-both
		G.P.I. INSPECTOR	FLOOD: /
		PLANS CHECKED	CONS.: /
		PLANS APPROVED	ZONED BY: phone *M. I.
BOND: No ☐ CASH ☐ SURETY	AMOUNT: ~~12~~	APPLICATION APPROVED	FILE WITH
	DATE POSTED:	BOARD FILE NO.	INSPECTOR
	CA #		

P.C.	S.P.C.	G.P.	I.F.	G.P.I.	C/O		
32.50		50 —	/	No-12			

P.C. NO. X302

PLAN CHECK EXPIRES ONE YEAR AFTER FEE IS PAID. PERMIT EXPIRES TWO YEARS AFTER FEE IS PAID OR 180 DAYS AFTER FEE IS PAID IF CONSTRUCTION IS NOT COMMENCED.

TYPIST: KCB

CASHIER'S USE ONLY

AUG-12-77	11775	5 0	•49878	V — 6 CK 32.50
AUG-12-77	11776	5 0	•49878	V — 1 CK 50.00

STATEMENT OF RESPONSIBILITY

I certify that in doing the work specified herein I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance.

"This permit is an application for inspection, the issuance of which is not an approval or an authorization of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)

Signed Vernon H. Evans
(Owner or Agent having Property Owner's Consent)

I certify that all of the land included in the Tentative Tract Map is under my ownership or land on which offsite rights have been granted.

Signed
(Owner or Agent having Property Owner's Consent)

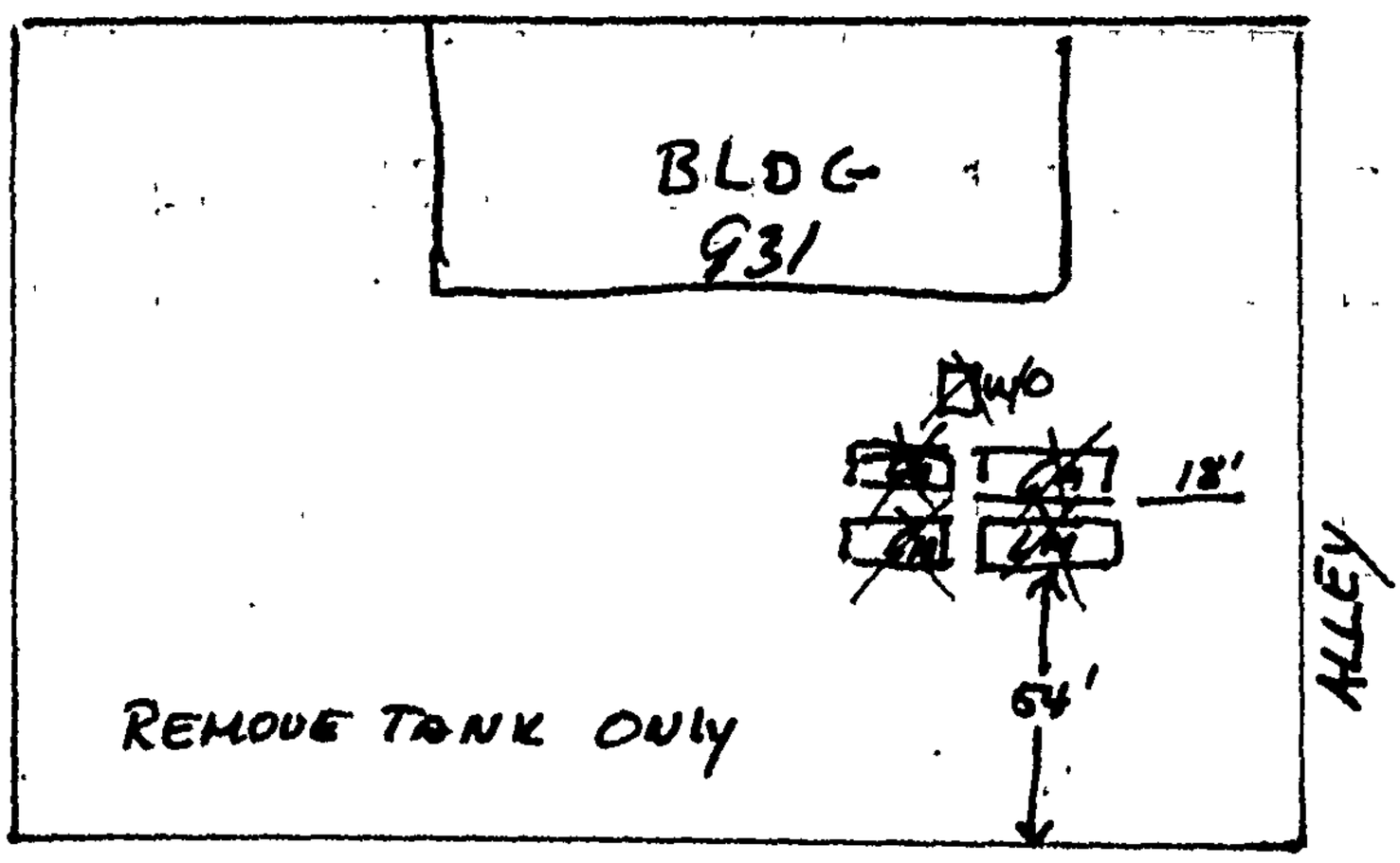
		Signature/Date
Bureau of Engineering	ADDRESS APPROVED	Hart 8-12-77
	DRIVEWAY	
	FLOOD CLEARANCE	
	DRAINAGE TO WATERCOURSE APPROVED	
	GRADING IN WATERCOURSE APPROVED	
	GRADING ON PUBLIC PROPERTY APPROVED	
Plumbing	SPRINKLER SYSTEM APPROVED	
Planning	APPROVED UNDER CASE #	

LEGAL [illegible] WORKMEN'S COMPENSATION CERTIFICATION

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workmen's Compensation Laws of California.

If [illegible] to
[illegible]
[illegible] $ 5700
[illegible] Permit shall be issued

PLOT PLAN SHOWING BUILDINGS ON LOT AND USE OF EACH



SANTA BARBARA

931 SANTA BARBARA AVE

Addresss of Buildingg 939 West Santa Barbara Avenue

CITY OF LOS ANGELES

Certificate of Occupancy

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

This certifies that, so far as ascertained by or made known to the undersigned, the building at the above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses, Ch. 9 Arts. 1, 3, 4, and 5; and with applicable requirements of State H. Housing Act—for following occupancies:

Issued 8-2-65

Permit No. and Year LA79050/64

Type IV, 4' x 4' shelter with 1- 5' x 31'6" double-faced roof sign. G-1 occupancy
REVOCABLE PERMISSION BY BOARD OF PUBLIC WORKS TO MAINTAIN THIS SIGN IN PORTION OF UNIMPROVED STREET ADJACENT TO PROPERTY AT 3988 SOUTH VERMONT- DATED 12/21/64

Owner: Texaco Oil Company

Owner's Address: 939 West Santa Barbara Avenue
Los Angeles, California

Form B-9585b—2M Sht. Sets—12-64 (C-10)

By K. W. HULL elh

All Applications must be filled out by Applicant

Bldg. Form 2

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 101 Block .....

(Description of Property)

Sect City Park

Todd Lots

District No. 15 M. B. Page 11 F. B. Page .....

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3957 So Vermont Street

(Location of Job)

E Cor Leighton & Vermont

O.K. City Clerk By ..... Deputy

O.K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Real Estate office No. of Rooms 1 No. of Families —
2. Owner's name Mick N Ormsby Phone 16964
3. Owner's address Equitable Bldg Room 404
4. Architect's name ..... Phone .....
5. Contractor's name ..... Phone .....
6. Contractor's address .....
7. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 200
8. Is there any existing (old) building on lot? No How used? Real Estate office
9. Size of proposed building 12 x 14 Height to highest point 8 feet
10. Number of Stories in height 1 Character of ground Sand Loam
11. Material of foundation R.W. Size of footings ..... Size of wall ..... Depth below ground .....
12. Material of chimneys — Number of inlets to flue ..... Interior size of flues ..... x .....
13. Give sizes of following materials: REDWOOD MUDSILLS 3 x 4 Girders 3 x 4
    EXTERIOR studs 2 x 3 INTERIOR BEARING studs — x — Interior Non-Bearing studs
    ..... x ..... Ceiling joists 2 x 3 Roof rafters 2 x 8 FIRST FLOOR JOISTS 2 x 6
    Second floor joists ..... x ..... Specify material of roof Tapes
14. Will all provisions of State Dwelling House Act be complied with? yes.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Roy End Emmett

(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued
3671	..... Plan Examiner	1/24/23 ..... Clerk	ISSUED JAN 24 1923 L.A. Bldg. Dept.

13 27 Block Rec'd 150

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot 3954 Vermont Ave	Lot
Tract	Tract

Present location of building: 3954 S. Vermont Ave (House Number and Street)

New location of building: (House Number and Street)

Between what cross streets: Near 39th St.

Approved by City Engineer.

Deputy.

1. Purpose of PRESENT building ~~garage~~ Residence Families 1 Rooms 5
   Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving Demolished Families —— Rooms ——
3. Owner (Print Name) LEE JOHNS LEE Johns Phone —
4. Owner's address 5020 Oakwood Ave Los Ang
5. Certificated Architect —— State License No. ——— Phone ———
6. Licensed Engineer ——— State License No. ——— Phone ———
7. Contractor ——— State License No. ——— Phone ———
8. Contractor's address ———
9. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 30.00
10. State how many buildings NOW on lot and give use of each. Residence
    Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building 16 x 30 Number of stories high 1 Height to highest point
12. Class of building D Material of existing walls Wood Exterior framework Wood
    Wood or ~~Steel~~

Describe briefly and fully all proposed construction and work:

Demolished & Removed
1 ~~LEE~~ JOHNS

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO.	FOR DEPARTMENT USE ONLY			Fee 1.00
1647	Plans and Specifications checked	Zone C-3	Fire District No. #3	Stamp here when Permit is issued
	Corrections verified	Set Back No Ft.	Street Widening No Ft.	RECEIVED JAN 27 1932 BUILDING & SAFETY DEPT.
PLANS	Plans, Specifications and Applications rechecked and approved	Application checked and approved C. Klages, 1/27/32 Clerk.		
Rec'd	For Plans See / Filed with	SPRINKLER Required Valuation Included	Specified Yes—No	

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Demolished

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Material of Roof.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here X LEE JOHNS
(Owner or Authorized Agent)

By.....

FOR DEPARTMENT USE ONLY

Application.....	Fire District.....	Set back.....	Termite Inspection.....
Construction.....	Zoning.....	Street Widening.....	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here.....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here.....
(Owner or Authorized Agent)

REMARKS: .....

All Applications must be filled out by Applicant

Bldg. Form 1

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

3

Application to Alter, Repair or Demolish

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR

CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 425 SOUTH ANNEX

ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot ..... Block	Lot ..... Block .....
Tract	Tract .....
Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....

O. K. City Clerk — By ..... Deputy

O. K. City Engineer — By ..... Deputy.

From No. 7960 So Vermont Ave Street

To No. Bet Browning Blvd + Leighton Street

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Residence - Vacant
2. What purpose will Building be used for hereafter? Remodel
3. Owner's name J L Blewett Phone .....
4. Owner's address 1414 So Berendo St
5. Architect's name ..... Phone .....
6. Contractor's name ..... Phone .....
7. Contractor's address .....
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 100.00
9. Class of present Building D No. of rooms at present 6
10. Number of stories in height 2 Size of present Building 35 x 50
11. State how many buildings are on this lot 2
12. State purpose buildings on lot are used for Residence + Garage (Tenement House, Hotel, Residence or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Remodel

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Albert F Blocher
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
61497	Plan Examiner	Clerk	RECEIVED DEC 21 1923

61497

13. Size of new addition.....x.....No. of Stories in height.....

14. Material of foundation.....Size footings.....Size wall.....Depth below ground.....

15. Size of Redwood Mudsills.....x.....Size of interior bearing studs.....x.....

16. Size of exterior studs.....x.....Size of interior non-bearing studs.....x.....

17. Size of first floor joists.....x.....Second floor joists.....x.....

18. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) Albert F Blocher
(Owner or Authorized Agent).

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

I hereby agree to locate and erect this building or structure and every portion thereof, except unenclosed porches, back a distance from the front property line equal to the set-back line of the nearest building now erected on any lot in this block in Zone "A" or "B" on the same side of the street.

.....
Owner.

1

APPLICATION TO ERECT A NEW BUILDING

Form D-1

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Lot No. H 105 & 107

Tract

Location of Building 2760 (House Number and Street)

Between what cross streets

Approved by
City Engineer
&
Deputy.

USE INK OR INDELIBLE PENCIL

1. Purpose of building ... Families ... Rooms ...
(Store, Dwelling, Apartment House, Hotel or other purpose)

2. Owner ... (Print Name) ... Phone ...

3. Owner's address ... P.O. ...

4. Certificated Architect ... State License No. ... Phone ...

5. Licensed Engineer ... State License No. ... Phone ...

6. Contractor ... State License No. 627941 Phone TR 7462

7. Contractor's address

8. VALUATION OF PROPOSED WORK — Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon. $ 1600 Elec

9. State how many buildings NOW on lot and give use of each ... (Store, Dwelling, Apartment House, Hotel, or other purpose)

10. Size of new building 100 x 46 No. Stories 1 Height to highest point 16' Size lot 33 x 47

11. Material Exterior Walls Reinforced Concrete Type of Roofing

12. Buildings and similar structures — For Accessory

(a) Footing: Width 18" Depth in Ground 12" Width of Wall 10"

(b) Size of Studs 2 x 4 Material of Floor Concrete

(c) Size of Floor Joists x Size of Rafters x

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here ...
(Owner or Authorized Agent)

By ...

Plans, Specifications and other data must be filed.

FOR DEPARTMENT USE ONLY

(1) PLAN CHECKING

Receipt No. 2407

Valuation $ 16200

Fee Paid $ 30.00

(2) REINFORCED CONCRETE

Bbls. Cement

Tons of Reinforcing Steel

(3) The building referred to in this Application will be more than 100 feet from ... Street

Sign here ... (Owner or Authorized Agent)

TYPE	GROUP	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Keyed	Lot Size	Ft. rear alley / Ft. side alley	Clerk
					150 X 75		

PERMIT No. 7871

PLANS

Plans and Specifications checked

Corrections Verified

Plans, Specifications and Application rechecked and approved.

For Plans Fee ... Filed with ...

Zone C 2

No.

Bldg. Line Ft.

Street Widening Ft.

Application checked and approved

Clerk

Fee 16.00 Stamp here when Permit is Issued

Continuous Inspection

SPRINKLER Specified—Required

Valuation Includes Fee—No

Inspector

402

[illegible]

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO ROOM No. 245 (2ND FLOOR) CITY CLERK PLEASE VERIFY	Lot ____ Block ____ Tract ____	Lot ____ Block 3 Tract ____ 3 Leighton Subdivision
TAKE TO ROOM No. 5 (MAIN ST. FLOOR) ENGINEER PLEASE VERIFY	Book ____ Page ____ F. B. Page ____ From No. Vermont Ave Street	Book ____ Page ____ F. B. Page ____ To No. 3960 So Vermont Ave Street

O. K. City Clerk By ____ Deputy

O. K. City Engineer By ____ Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Used CAR OFFICE
2. What purpose will Building be used for hereafter? USED CAR OFFICE
3. Owner's name Francis J. Brown Phone Vermont 9818
4. Owner's address 3960 So. Vermont Ave.
5. Architect's name ____ Phone ____
6. Contractor's name ____ Phone ____
7. Contractor's address ____
8. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 165.00
9. Class of present Building A 1 No. of rooms at present one
10. Number of stories in height 1 Size present Building 8 x 10
11. State how many buildings are on this lot Two
12. State purpose buildings on lot are used for used car office + shed. (Apartment House, Hotel, Residence, or any other purpose.)
13. What Zone is Property in? ____

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Move house to 100 ft back from Vermont Ave. To be used for used car office. There will be no working of automobiles on this lot.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Francis J. Brown
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued
10173	____ Plan Examiner	____ Clerk	RECEIVED APR 15 1929 BUILDING DIVISION

E. L. Bailey

150

14. Size of new addition [illegible] x _____ No. of Stories in height _____

15. Material of foundation Conc. Size footings _____ size wall _____ Depth below ground _____

16. Size of Redwood Mudsills 4" X 6" x _____ Size of interior bearing studs _____ x _____

17. Size of exterior studs 2 x 4 Size of interior non-bearing studs _____ x _____

18. Size of first floor joists 2 x 6 Second floor joists _____ x _____

19. Will all Lathing and Plastering Comply with Ordinance? Yes

20. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinance and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) [signature]
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

3

APPLICATION TO ALTER, REPAIR OR DEMOLISH AND FOR A Certificate of Occupancy

Form 0-3

CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY
BUILDING DIVISION

Lot No. 105 & 107

Tract SOUTHERN DISTRICT AGRICULTURAL PARK & ANX Lot 25

Location of Building 3240 S. VERMONT AVE (House Number and Street)

Between what cross streets LEIGHTON & SANTA BARBARA

Approved by City Engineer

Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building MAIN HOUSE & SERVANTS QUARTERS Families Rooms
(Store, Dwelling, Apartment House, Hotel or other purposes)
2. State how long building has been used for present occupancy
3. Use of building AFTER alteration or moving Families Rooms
4. Owner GEORGE ERK (Print Name) Phone
5. Owner's Address 3282 S. VERMONT AVE P. O. LOS ANGELES
6. Certificated Architect State License No. Phone
7. Licensed Engineer State License No. Phone
8. Contractor OWNER State License No. Phone
9. Contractor's Address
10. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon.) $ 750.00 Est
11. State how many buildings NOW on lot and give use of each. 1 GARAGE BUILDING (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 44 x 26 Number of stories high 1 Height to highest point 14
13. Material Exterior Walls WOOD (Wood, Steel or Masonry) Exterior framework WOOD (Wood or Steel)
14. Describe briefly all proposed construction and work:
Add Bedroom to Garage Apartment

NEW CONSTRUCTION

15. Size of Addition 18 x 26 Size of Lot 60 x 163 Number of Stories when complete 1
16. Footing: Width Depth in Ground 1 Width of Wall Size of Floor Joists x
17. Size of Studs x Material of Floor Size of Rafters x Type of Roofing

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here GEORGE ERK (Owner or Authorized Agent)

By

FOR DEPARTMENT USE ONLY

PLAN CHECKING
Receipt No. U.C. 17515
Valuation $ 750
Fee Paid $ 7.00

(1) REINFORCED CONCRETE
Bbls. Cement
Tons of Reinforcing Steel

FEES
Bldg. Per 5.00
Cert. of Occupancy 2.00
Total 7.00

TYPE	GROUP	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Exit Keyed	Lot Size	Clerk
IE	V-1				100 116'	

PERMIT No. 31994

PLANS

Plans and Specifications checked Blanche Wood
Computation Verified Blanche Wood
Plans Examined and Approved Blanche Wood

Zone 2 Fire District No. 2 Fire District Limits

Bldg. Line ft. Street Widening ft.

Application checked and approved DEC 13 1948

DEC 13 1948
Permit is Issued

C-36472

3

APPLICATION TO ALTER, REPAIR, OR DEMOLISH AND FOR A Certificate of Occupancy

Form 3-3-5-5-1-49
CITY OF LOS ANGELES
DEPARTMENT OF
BUILDING AND SAFETY
BUILDING DIVISION

Lot No. _____

Tract _____

Location of Building 3962 S. VERMONT (House Number and Street)

Between what cross streets 39th & 40th

Approved by City Engineer _____ Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building Store (Store, Dwelling, Apartment House, Hotel or other purpose) Families _____ Rooms _____
2. State how long building has been used for present occupancy _____
3. Use of building AFTER alteration or moving Same Families _____ Rooms _____
4. Owner MACMILLAN GLASS (Print Name) Phone _____
5. Owner's Address 3962 S. Vermont P.O. _____
6. Certificated Architect _____ State License No. _____ Phone _____
7. Licensed Engineer _____ State License No. _____ Phone _____
8. Contractor Owner _____ State License No. _____ Phone _____
9. Contractor's Address 1 S. Carondelet
10. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment thereon or therein.) $ 120.00
11. State how many buildings NOW on lot and give use of each. _____ (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 40 x 60 Number of stories high 1 Height to highest point 12'
13. Material Exterior Walls Plaster (Wood, Steel or Masonry) Exterior framework _____ (Wood or Steel)
14. Describe briefly all proposed construction and work: Erect Store

NEW CONSTRUCTION

15. Size of Addition _____ x _____ Size of Lot _____ x _____ Number of Stories when complete _____ x _____
16. Footing: Width _____ Depth in Ground _____ Width of Wall _____ Size of Floor Joists _____ x _____
17. Size of Studs _____ x _____ Material of Floor _____ Size of Rafters _____ x _____ Type of Roofing _____

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here _____ (Owner or Authorized Agent)

By _____

DISTRICT OFFICE _____

FOR DEPARTMENT USE ONLY

PLAN CHECKING

Date _____
Receipt No. _____
Valuation $ _____
Fee Paid $ _____

CHANGE OF OCCUPANCY

Area of Bldg. _____ Sq. Ft.
Date _____
Receipt No. _____
Fee Paid $ _____

FEES

Bldg. Per 8 37
Cert. of Occupancy _____
Total _____

TYPE 1 Fire | GROUP L | Maximum No. Occupants 1 | Inside Lot | Key Lot | Lot Size | Ft. rear alley | Clerk Murdaugh
REINFORCED CONCRETE
Bldg. Cement _____ Tons of Reinforcing Steel _____
Corner Lot | Corner Lot Keyed | Ft. side alley

PERMIT No. LA27500

Plans and Specifications checked
Correction Verified
Plans, Specifications and Application rechecked and approved.
Per Plans Loc | Filed with

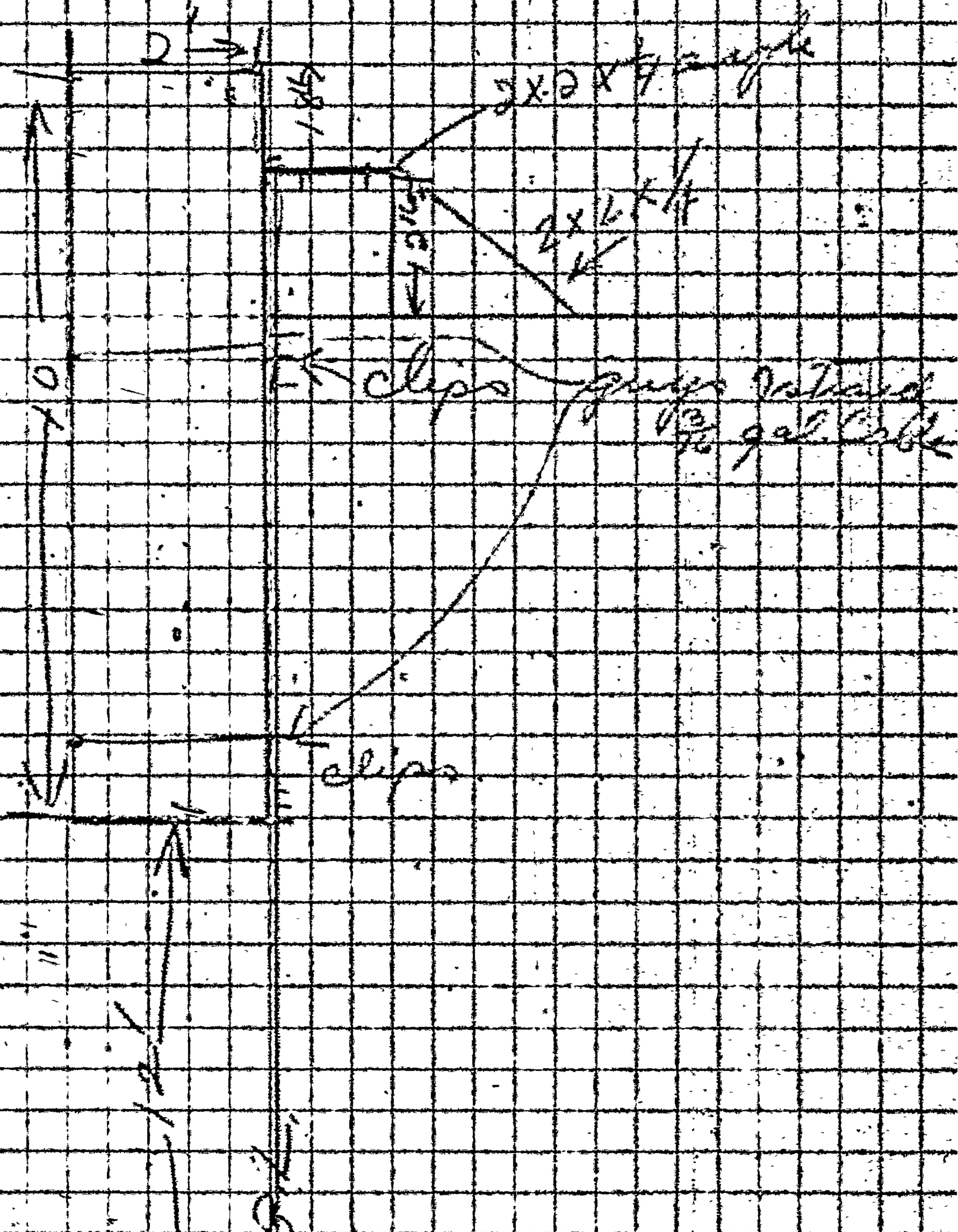
Zone C-2 | Fire District No. 2 | District Map No. _____
Bldg. Line _____ Ft. | Street Widening _____ Ft.
Application checked and approved
Continuous Inspection

SPRINKLER
Specified—Required
Valuation Included
Yes— —No

Stamp here when Permit is issued.
NOV 16 1949

PLANS
Sheets _____

Inspector



3

APPLICATION TO ALTER, REPAIR, or DEMOLISH
AND FOR A
Certificate of Occupancy

Form 3-1
CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Lot No. _____

Tract _____

Location of Building 3962 S. VERMONT
(House Number and Street)

Between what cross streets? LEIGHTON & SMITA BARBARA

Approved by City Engineer

Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building STORE Families _____ Rooms _____
(Store, Dwelling, Apartment House, Hotel or other purpose)
2. State how long building has been used for present occupancy _____
3. Use of building AFTER alteration or moving _____ Families _____ Rooms _____
4. Owner SAME OF SAME Phone _____
(Print Name)
5. Owner's Address 217 W. 7TH ST. P. O. _____
6. Certificated Architect _____ State License No. _____ Phone _____
7. Licensed Engineer _____ State License No. M-23d Phone _____
8. Contractor CLEVELAND WRECKING Co. State License No. 21064 Phone RO 6115
9. Contractor's Address 125 E. JEFFERSON
10. VALUATION OF PROPOSED WORK (including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon.) $ 300.00
11. State how many buildings NOW on lot and give use of each ONE
(Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 50 x 60 Number of stories high 1 Height to highest point 16'
13. Material Exterior Walls MASONRY Exterior framework _____
(Wood, Steel or Masonry) (Wood or Steel)
14. Describe briefly all proposed construction and work:
DEMOLISH TO STREET

NOTICE OF WORK STARTED (IW) ON NEW BUILDING
Certificate of Occupancy
Drawing

NEW CONSTRUCTION

15. Size of Addition _____ x _____ Size of Lot _____ x _____ Number of Stories when complete _____
16. Footing, Width _____ Depth in Ground _____ Width of Wall _____ Size of Floor Joists _____ x _____
17. Size of Studs _____ x _____ Material of Floor _____ Size of Rafters _____ x _____ Type of Roofing _____

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here CLEVELAND WRECKING Co.
(Owner or Authorized Agent)

DISTRICT OFFICE

By _____

FOR DEPARTMENT USE ONLY

PLAN CHECKING	OCCUPANCY SURVEY	
Valuation $ _____ Fee $ _____	Area of Bldg. _____ Sq. Ft. Fee $ _____	Investigation Fee $ _____ Cert. of Occupancy Fee $ 2.50 Bldg. Permit Fee $ 2.50 Total $

TYPE	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Reversed	Lot Size	Ft. rear alley / Ft. side alley	Clerk
GROUP	Plans and Specifications checked		Zone C-2	Fire District No. 2	District Map No. 4279	
For Plans See	Correction Letters		Bldg. Line — Ft.	Street Widening — Ft.	Application checked and approved — Clerk	
Filed with	Plans, Specifications and Application corrected and approved.		Continuous Inspection	SPRINKLER Specified—Required Valuation Included Yes—No	Inspector	

DO NOT WRITE BELOW THIS LINE

TYPE OF RECEIPT	DATE ISSUED	TRACER NO. (M)	RECEIPT NO.	CODE	FEE PAID
Plan Checking					
Supplemental Plan Checking			[illegible] -25		
Building Permit	[illegible]		[illegible]	LA15570	

All Applications Must be Filled Out by Applicant

307-W+C-1354

Bldg. Form 1

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

1 Application for the Erection of Buildings

CLASS [redacted]"B"—"C"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 109 Block .....
(Description of Property)

Southern District Agricultural Park and adjoining lots

District No. 15 M. B. Page 11 F. B. Page 2 & 2

O.K. City Clerk By ..... Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3964 and 3966 South Vermont St Street
(Location of Job)

Leighton & Sta Barbara

O.K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Store Rents No. of Rooms ..... No. of Families 2
2. Owner's name Fred W. Hughes Phone HE 0206
3. Owner's address 257 So Lakemont Blvd
4. Architect's name ..... Phone .....
5. Contractor's name Fred W. Hughes Phone .....
6. Contractor's address 257 S Lakemont Blvd
7. TOTAL VALUATION OF BUILDING {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $3500 00
8. Any other buildings on lot at present? no How used? ....
9. Size of proposed building 50 x 65 Size of lot 50 x 165 feet
10. Number of stories in height one Height to highest point [redacted] 18 ft
11. Material of foundation Cement Character of soil Sandy Loam
12. Material of exterior walls Brick
13. Material of interior construction Oregon Pine 2x4
14. Material of floors Cement
15. Material of roof 3 layer 10lb felt. well applied

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree, if a permit is issued, that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that the plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

[redacted] OVER (Sign here) Fred W. Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is
48838	Plan Examiner	Clerk	RECEIVED DEC 6 1924

Chg to Frame

10 ft Lath

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N.S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

3

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application to Alter, Repair or Demolish

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit;

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot 109 Block 1	Lot 4 Block
Tract Southern District Agricultural Park	Tract 4382
Book 18 Page 11 F. B. Page 210	Book 47 Page 54 F. B. Page

O.K. City Clerk By Deputy

O.K. City Engineer By Deputy

From No. 3964 So Vermont St Street

To No. 1751 ft S 59th Pl. N E cor Western Ave in line 59 Place and Western Ave Street

Between western and Harvard Ave

USE INK OR INDELIBLE PENCIL

1. What purpose is the present Building now used for? Rent property 1 fam
2. What purpose will Building be used for hereafter? " " 1 fam
3. Owner's name Fred W Hughes Phone HE 0206
4. Owner's address 757 So Larchmont Blvd
5. Architect's name none Phone
6. Contractor's name F W Hughes Phone
7. Contractor's address
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $150 ~~00~~
9. Class of present Building Calif house No. of rooms at present 4 rooms
10. Number of stories in height One Size of present Building 18 x 28
11. State how many buildings are on this lot 2 houses none none
12. State purpose buildings on lot are used for Rental purpose none

(Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Bath put in and paint outside

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Fred W. Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
29018	Plan Examiner	9/25/24 Z D Fleece Clerk	RECEIVED SEP 25 1924

(24 Hr Service)

13. Size of new addition Bathroom 3 x 4 No. of Stories in height None.

14. Material of exterior walls

15. Will all provisions of State Housing Act be complied with?

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) Fred W Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

There will be an unobstructed passageway, at least 10 feet wide, extending from any dwelling on lot to a public street, or to a public alley at least 10 feet in width

Fred W Hughes
Owner or Authorized Agent

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

3

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application to Alter, Repair or Demolish

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot 109 Block	Lot 4 Block
Tract Southern District Agricultural Park	Tract 4382
Book 22½ Page 6 F. B. Page	Book 22½ Page 11 F. B. Page

O.K. City Clerk By Deputy

O.K. City Engineer By Deputy

From No. 3966 So. Vermont Street

To No. 1753 W. 59th Place Street

between Western & Harvard Blvd.

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? ~~Rental~~ Rental Residence, one family
2. What purpose will Building be used for hereafter? " " " " "
3. Owner's name Fred W. Hughes Phone HE 0206
4. Owner's address 257 So. Lafayette Blvd
5. Architect's name — Phone
6. Contractor's name — Phone
7. Contractor's address —
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $150.00
9. Class of present Building Calif. House No. of rooms at present 4
10. Number of stories in height One Size of present Building 18 x 28
11. State how many buildings are on this lot 2 none
12. State purpose buildings on lot are used for Rental none

(Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Add Bath room and paint Outside

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Fred W. Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
29019	Plan Examiner	9/25/24 ZD ~ 110 & B Clerk	SEP 25 1924

Fred W. Hughes
257 So. Lafayette Blvd

13. Size of new addition 22 x 14 No. of Stories in height 1

14. Material of exterior walls

15. Will all provisions of State Housing Act be complied with?

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) Fred W. Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

There will be an unobstructed passageway, at least 10 feet wide, extending from any dwelling or lot to a public street, or to a public alley at least 10 feet in width.

Fred W. Hughes
Owner or Authorized Agent

All Applications Must be Filled Out by Applicant

307-W+C-1354

Bldg. Form 1

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

1 Application for the Erection of Buildings

CLASS [redacted]"B"—"C"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 109 Block .....
(Description of Property)

Southern District Agricultural Park and adjoining lots

District No. 15 M. B. Page 11 F. B. Page 2 & 2

O.K. City Clerk By ..... Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3964 and 3966 South Vermont St Street
(Location of Job)

Leighton & Sta Barbara

O.K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Store Rents No. of Rooms ..... No. of Families 2
2. Owner's name Fred W. Hughes Phone HE 0206
3. Owner's address 257 So Lakemont Blvd
4. Architect's name ..... Phone .....
5. Contractor's name Fred W. Hughes Phone .....
6. Contractor's address 257 S Lakemont Blvd
7. TOTAL VALUATION OF BUILDING {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $3500 00
8. Any other buildings on lot at present? no How used? ....
9. Size of proposed building 50 x 65 Size of lot 50 x 165 feet
10. Number of stories in height one Height to highest point [redacted] 18 ft
11. Material of foundation Cement Character of soil Sandy Loam
12. Material of exterior walls Brick
13. Material of interior construction Oregon Pine 2x4
14. Material of floors Cement
15. Material of roof 3 layer 10lb felt. well applied

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree, if a permit is issued, that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that the plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

[redacted] OVER (Sign here) Fred W. Hughes
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is
48838	Plan Examiner	Clerk	RECEIVED DEC 6 1924

Chg to Frame

10 ft Lath

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N.S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

3

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application to Alter, Repair or Demolish

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot 111 Block	Lot 117 Block
Tract Southern District Agricultural Park and adjoining lots (3968 So Vermont)	Tract Southern District Agricultural Park and adjoining lots
Book 18 Page 11 F. B. Page 20	Book 18 Page 11 F. B. Page 20

From No. 3968 S Vermont Ave Street

To No. 3976 S Vermont Ave (Belt Line thru Ave & South Pasadena) Street

O.K. City Clerk By Deputy

O.K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Priv. Res. - 1 family
2. What purpose will Building be used for hereafter? " " - 1 " "
3. Owner's name F. H. Schreiner Phone UNIVERSITY 557
4. Owner's address 436 So Hoover
5. Architect's name — Phone
6. Contractor's name A. V. Parkinson Phone UNIV 0557
7. Contractor's address 436 So Hoover
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 200.00
9. Class of present Building 19 No. of rooms at present 5
10. Number of stories in height 1 Size of present Building 24 x 40
11. State how many buildings are on this lot One (To be Moved)
12. State purpose buildings on lot are used for Priv. Res.
(Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Move Building to new lot
New Foundation - post - girders -

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) A V Parkinson
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued
51032 51033	Plan Examiner	12/30/24 B Clerk	RECEIVED DEC 30 1924 TOOLE

10 Attest

13. Size of new addition ..... x ..... No. of Stories in height .....

14. Material of exterior walls ..... Wood .....

15. Will all provisions of State Housing Act be complied with? ..... Yes .....

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) ..... A V Peterson .....
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

3

APPLICATION TO ALTER, REPAIR, or DEMOLISH
AND FOR A
Certificate of Occupancy

Form 3-1
CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY
BUILDING DIVISION

Lot No. ...

Tract ...

Location of Building 3968 S. VERMONT
(House Number and Street)

Between what cross streets? LAZLATON & SANTA BARBARA

Approved by City Engineer

Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building STORE Families ... Rooms ...
(Store Dwelling, Apartment House, Hotel or other purpose)
2. State how long building has been used for present occupancy ...
3. Use of building AFTER alteration or moving ... Families ... Rooms ...
4. Owner SAME AS ABOVE Phone ...
(Name)
5. Owner's Address 217 W. 1ST ST. P. O.
6. Certificated Architect ... State License No. ... Phone ...
7. Licensed Engineer ... State License No. N-230 Phone ...
8. Contractor HEUELAND WRECKING CO. State License No. 91061 Phone RO. 6175
9. Contractor's Address 175 E. JEFFERSON
10. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler electrical wiring and elevator equipment therein or thereon.) $ 350.00
11. State how many buildings NOW on lot and give use of each. NONE
(Store, Dwelling, Apartment House, Hotel or other purpose.)
12. Size of existing building 50 x 165 Number of stories high 1 Height to highest point 16'
13. Material Exterior Walls MASONRY Exterior framework ...
(Wood, Steel or Masonry) (Wood or Steel)
14. Describe briefly all proposed construction and work: DEMOLISH TO GRADE

NEW CONSTRUCTION

15. Size of Addition ... x ... Size of Lot ... x ... Number of Stories when complete ...
16. Footing: Width ... Depth in Ground ... Width of Wall ... Size of Floor Joists ... x ...
17. Size of Studs ... x ... Material of Floor ... Size of Rafters ... x ... Type of Roofing ...

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here HEUELAND WRECKING CO.
(Owner or Authorized Agent)
By ...

DISTRICT OFFICE

FOR DEPARTMENT USE ONLY

PLAN CHECKING	OCCUPANCY SURVEY	
Valuation $ ...	Area of Bldg. ... Sq. Ft.	Investigation Fee $ ...
Fee $ ...	Fee $ ...	Cert. of Occupancy Fee $ ...
		Bldg. Permit Fee $ 3.00
		Total $ ...

TYPE	Maximum No. Occupants	Inside Lot	Key Lot	Lot Size	... Ft. rear alley ... Ft. side alley	Clerk
GROUP	Plans and Specifications checked	Corner Lot	Corner Lot Keyed Zone C-2	Fire District No. 2	District Map No. 1279	
For Plans fee	Correction Val'tion	Bldg. Line ... Ft.	Street Widening ... Ft.		Application checked and approved ... Clerk	
Filed with	Plans, Specifications and Application rechecked and approved.	Continuous Inspection	SPRINKLER Sprinkler Required Valuation Included Yes ... No		Inspector ...	

DO NOT WRITE BELOW THIS LINE

TYPE OF RECEIPT	DATE ISSUED	TRACER NO. (M)	RECEIPT NO.	CODE	FEE PAID
Plan Checking					
Supplemental Plan Checking					
Building Permit	[redacted]		1[redacted]	LA15571	

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

3

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application to Alter, Repair or Demolish

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot ..... Block	Lot ..... Block .....
Tract	Tract .....
Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....
From No. 3968 So Vermont Ave Street	
To No. Bet. 39th & Santa Barbara Street	

O.K. City Clerk By ..... Deputy

O.K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Auto Salesroom & Garage
2. What purpose will Building be used for hereafter? Same
3. Owner's name F. H. Schreiner Phone .....
4. Owner's address 3968 So. Vermont Ave
5. Architect's name ..... Phone .....
6. Contractor's name Electrical Products Corp. Phone .....
7. Contractor's address 1128 West 16th Street
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 500.00
9. Class of present Building C No. of rooms at present 2
10. Number of stories in height one Size of present Building 50 x 130
11. State how many buildings are on this lot This one only
12. State purpose buildings on lot are used for As above
(Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

We want to put up two single faced electric signs on the canvas frame on the roof.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with whether herein specified or not.

OVER

(Sign here) by Electrical Products Corp (Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
12232 12232	Plan Examiner	Clerk	RECEIVED APR 6 1925 BUILDING

13. Size of new addition None x No. of Stories in height.....

14. Material of exterior walls.....

15. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) J. Manington
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K. Wicks
CONSTRUCTION	O. K. Wicks
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K. Wicks

REMARKS

All Applications must be filled out by Applicant

B.P.W. Form 1

PLANS AND SPECIFICATI
and other data must also be

1

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Buildings

CLASS "A"—"B"—"C"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 111 Block

(Description of Property)

Southern District Agricultural Park and adjoining lots

District No. 15 M. B. Page 11 F. B. Page 270

O. K. City Clerk By Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3968 S1 Vermont Street

(Location of Job)

Rat. Leighton of Santa Barbara

O. K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Public Garage & Sales Room No. of Rooms 7 No. of Families —
2. Owner's name Fred H. Schreiner Phone Univ. 0557
3. Owner's address 4362 So. Hoover
4. Architect's name W. M. Perdue Phone Univ. 0557
5. Contractor's name G. V. Perkinson Phone Univ. 0557
6. Contractor's address 4362 So. Hoover
7. TOTAL VALUATION OF BUILDING (Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.) $ 15000 00
8. Any other buildings on lot at present? No How used? —
9. Size of proposed building 50 x 165 Size of lot 50 x 165 feet
10. Number of stories in height 2 Height to highest point 23
11. Material of foundation Concrete Character of soil Sand
12. Size of footings 1'9" Depth below surface of ground 1'6"
13. Number of chimneys — Material of chimneys —
14. Number of inlets to each flue — — Interior size of such flues — x — x —
15. Material of exterior walls Brick
16. Material of interior construction Wood
17. Material of floors Cement
18. Material of roof Composition
19. Are there any other buildings within 30 feet of the proposed structure?

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree that if a permit is issued that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that the plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

OVER

(Sign here) W M Perdue

(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
2165	1/16/25 Plan Examiner	1/16/25 Clerk.	JAN 17 1925

REMARKS

I hereby agree to locate and erect this building or structure and every portion thereof, except unenclosed porches, back a distance from the front property line equal to the set-back line of the nearest building now erected on any lot in this block in Zone "A" or "B" on the same side of the street.

.....

Owner.

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

3 DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st Floor CITY CLERK PLEASE VERIFY	Lot.....Block..... Tract.....	Lot.....Block..... Tract..... ....
TAKE TO FIRST FLOOR 242 SO. BROADWAY ENGINEER PLEASE VERIFY	Book.....Page.....F. B. Page.....	Book.....Page.....F. B. Page.....
	From No. #3968 So. Vermont Avenue Street	
	To No. Street	

O. K. City Clerk By Deputy

O. K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Auto- Sales Room
2. What purpose will Building be used for hereafter? Same
3. Owner's name J. L. KROEGER Phone
4. Owner's address 3977 So. Vermont Ave UN-4650
5. Architect's name Same Phone
6. Contractor's name Same Phone Same
7. Contractor's address Same
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 1000.
9. Class of present Building "C" No. of rooms at present 2
10. Number of stories in height 1 Size of present Building 50 x 180
11. State how many buildings are on this lot One
12. State purpose buildings on lot are used for Auto sales Room
(Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Placing partition in SHOW ROOM, so that driveway may be made to rear portion from the street in the front of the premises.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) J. L. Kroeger
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
21670	Plan Examiner	Clerk	ISSUED AUG 1 1927

PLANS

3 75

13. Size of new addition 50 feet 1 Cr x No. of Stories in height

14. Material of foundation Size footings Size wall Depth below ground

15. Size of Redwood Mudsills x Size of interior bearing studs x

16. Size of exterior studs x Size of interior non-bearing studs 3 x 4

17. Size of first floor joists x Second floor joists x

18. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) .....
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 3

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO Room No. 248 (2ND FLOOR) CITY CLERK PLEASE VERIFY	Lot..... Block.....	Lot..... Block.....
	Tract	Tract .....
	.....	.....
	.....	.....
TAKE TO ROOM No. 5 (MAIN ST.) FLOOR) ENGINEER PLEASE VERIFY	.....	.....
	Book.....Page.....F. B. Page.....	Book.....Page.....F. B. Page.....
	From No. 3968 S. Vermont Street	
	To No. ..... Street	

O. K. City Clerk By ..... Deputy

O. K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Store
2. What purpose will Building be used for hereafter? "
3. Owner's name Franklin Furniture Co Phone.....
4. Owner's address 3968 S. Vermont
5. Architect's name (Not to be filled in unless with name of Certificated Architect or Licensed Engineer under State Act) ..... Phone.....
6. Contractor's name EASTERN AWNING WORKS Owner Phone Dr. 6906
7. Contractor's address 4609 3/4 W. Pico
8. VALUATION OF PROPOSED WORK (Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.) $ 117.—
9. Class of present Building..... No. of Rooms at present.....
10. Number of stories in height..... Size present Building..... x.....
11. State how many buildings are on this lot.....
12. State purpose buildings on lot are used for..... (Apartment House, Hotel, Residence, or Any Other Purpose.)
13. What Zone is Property in?.....

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

1 Roller awning complete 43'6" wide 6½' out frame 8' above sidewalk

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

EASTERN AWNING WORKS

(Sign here) F. M. Christian (Owner or Authorized Agent)

☞ OVER

FOR DEPARTMENT USE ONLY

PERMIT No.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is
12612	Plan Examiner.	6-19-31 Clerk	RECEIVED JUN 19 1931

R. J. Latimer 5

2

14. Size of new addition.....x.....No. of stories in height.....Size of Lot.....x.....ft.

15. Material of foundation.....Size footings.....Size wall.....Depth below ground.....

16. Size of Redwood Mudsills.....x.....Size of interior bearing studs.....x.....

17. Size of exterior studs.....x.....Size of interior non-bearing studs.....x.....

18. Size of first floor joists.....x.....Second floor joists.....x.....

19. Will all Lathing and Plastering Comply with Ordinance? .....

20. Will all provisions of State Housing Act be complied with?.....

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here).....
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O.K.
CONSTRUCTION	O.K.
ZONING	O.K.
SET-BACK LINE	O.K.
ORD. 33761 (N. S.)	O.K.
FIRE DISTRICT	O.K.

REMARKS

All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 1

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO Room No. 248 (2ND FLOOR)	Lot ..... Block	Lot ..... Block .....
CITY CLERK PLEASE VERIFY	Tract	Tract .....
TAKE TO ROOM No. 5 (MAIN ST. FLOOR)	Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....
ENGINEER PLEASE VERIFY	From No. ..... Street	
	To No. 3968 So. Vermont ave Street	

O. K. City Clerk By ..... Deputy

O. K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Furniture Store
2. What purpose will Building be used for hereafter? Furnish Store
3. Owner's name M. Naccarato Phone .....
4. Owner's address 148 W. Washington St.

Not to be filled in unless with name of Certificated Architect or Licensed Engineer under State Act

5. Architect's name E. B. Bayly STATE LICENSE NO. [illegible] Phone .....
6. Contractor's name A. Trester Phone .....
7. Contractor's address 2210 W. 75th St STATE LICENSE NO. 1948 B
8. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 1500.00
9. Class of present Building C No. of Rooms at present 7
10. Number of stories in height One Size present Building 50 x 165
11. State how many buildings are on this lot One
12. State purpose buildings on lot are used for Store (Apartment House, Hotel, Residence, or Any Other Purpose.)
13. What Zone is Property in? "C" #3 F D Suite

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Build a new front, Remove 3 partitions over balcony. Build a new partition in rear of building. Put 1 coat plaster over ceiling and walls in front room.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

[redacted] OVER

(Sign here) A. Trester
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	
10389	Plan Examiner.	Clerk	RECEIVED MAY 19 1931 JULY

[redacted] Tax

EXAMINED

6 25

14. Size of new addition 1 x ——— No. of stories in height one Size of Lot 50 x 165 ft.

15. Material of foundation Concrete Size footings 1'-0" x 2'-0" Size wall 2'-0" x 3'-0" Depth below ground 3'-0"

16. Size of Redwood Mudsills 2 x 6 ——— Size of interior bearing studs ——— x ———

17. Size of exterior studs ——— x ——— Size of interior non-bearing studs ——— x ———

18. Size of first floor joists ——— x ——— Second floor joists ——— x ———

19. Will all Lathing and Plastering Comply with Ordinance? yes

20. Will all provisions of State Housing Act be complied with? yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) A. Trento
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O.K.
CONSTRUCTION	O.K.
ZONING	O.K.
SET-BACK LINE	O.K.
ORD. 33761 (N. S.)	O.K.
FIRE DISTRICT	O.K.

REMARKS

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot	Lot .....
..... 3996	.....
Tract 3996	Tract .....

Present location of building } 3268 So. Vermont
(House Number and Street)

New location of building } .....
(House Number and Street)

Between what cross streets } .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building ... Furniture Store ... Families ..... Rooms .....
Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving ..... Families ..... Rooms .....
3. Owner (Print Name) ... Thompson ... Phone .....
4. Owner's address ... 48th & Western ...
5. Certificated Architect ..... State License No. ..... Phone .....
6. Licensed Engineer ..... State License No. ..... Phone .....
7. Contractor ... A. E. Anderson ... State License No. ..... Phone .....
8. Contractor's address ... AWNINGS A.E.F. SHADES
4802 SO. WESTERN AVE. • VE. 0016
9. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 45.00
10. State how many buildings NOW on lot and give use of each. } .....
Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building ..... x ..... Number of stories high ..... Height to highest point .....
12. Class of building ... D ... Material of existing walls ..... Exterior framework .....
Wood or Steel

Describe briefly and fully all proposed construction and work:

3 Movable Awnings

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO.	FOR DEPARTMENT USE ONLY			Fee .....
91089	Plans and Specifications checked	Zone	Fire District No.	Stamp here when Permit is issued JUL 17 1934
	Corrections verified	Set Back Ft.	Street Widening Ft.	
	Plans, Specifications and Applications rechecked and approved	Application checked and approved 7/16/34 Clerk.		
PLANS Rec'd	For Plans See	Filed with	SPRINKLER Required Valuation Included / Specified Yes—No	Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here.....
(Owner or Authorized Agent)

By.....

FOR DEPARTMENT USE ONLY

Application.....	Fire District.....	Set back.....	Termite Inspection .....
Construction.....	Zoning	Street Widening.....	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

Los Angeles, Calif., 7-19, 193 4

MR. J. J. BACKUS,
Superintendent of Building,
Los Angeles, Calif.

Dear Sir:

I hereby respectfully request the change of address on

Building)
Electrical)
Heating and Ventilating) Permit No. 9858 Issued 7/17/34
Plumbing)

From 3968 So Vermont ave

To 3996 So Vermont ave

for the following reasons:

( ) Change on same street, if not from east to west, or north to south, or vice versa.

( ) Change from one street to another street for corner lot.

( ) Change because of error on part of some city department.

( ) Change where charge is made for extra inspection trip of not less than 75 cents.

NOTE: Above conditions for change of address shall not be deemed to waive any inspection fees required by ordinance; nor to require the Building and Safety Department to change any address except in justifiable cases.

Respectfully,

.....
Owner, Contractor or Authorized Agent.

Address.....

Checked by Reece

.....
Clerk.

Approved by E. A. Dieckmann

.....
Chief Clerk. CP

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

3 DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st Floor	Lot ..... Block	Lot ..... Block .....
	Tract	Tract .....
CITY CLERK PLEASE VERIFY		
TAKE TO FIRST FLOOR 242 SO. BROADWAY ENGINEER PLEASE VERIFY	Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....
	From No. 3912 S. Vermont Ave Street	
	To No. ..... Street	

O. K. City Clerk By ..... Deputy

O. K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Public Garage
2. What purpose will Building be used for hereafter? Public Garage
3. Owner's name Mr. G. J. Covey Phone .....
4. Owner's address 576 Santa Monica Blvd
5. Architect's name ..... Phone .....
6. Contractor's name Geo. W. Adams Phone Em 4718
7. Contractor's address 1608 W. Adams (2)
8. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 200.00
9. Class of present Building C No. of rooms at present 2
10. Number of stories in height 1 Size of present Building 50x80
11. State how many buildings are on this lot One
12. State purpose buildings on lot are used for Public Garage (Apartment House, Hotel, Residence, or any other purpose.)

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Window in front where door now is. Cut arch in partition - to admit cars.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

☞ OVER

5/9/27

(Sign here) George W. Adams

(Owner or Authorized Agent.) E. Williams

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued
13709	5-13-27 Plan Examiner	5/13/27 ZC 1108 Clerk	LOS ANGELES MAY 13 1927 BUILDING

Brickland

2 00

13. Size of new addition 1 Room x No. of Stories in height 1

14. Material of foundation Size footings Size wall Depth below ground

15. Size of Redwood Mudsills x Size of interior bearing studs x

16. Size of exterior studs x Size of interior non-bearing studs x

17. Size of first floor joists x Second floor joists x

18. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) George W. Kraus
(Owner or Authorized Agent)
By E. Kraus

FOR DEPARTMENT USE ONLY

APPLICATION	O. K. J Cu
CONSTRUCTION	O. K. J Cu
ZONING	O. K. CP
SET-BACK LINE	O. K. CP
ORD. 33761 (N. S.)	O. K. CP
FIRE DISTRICT	O. K. J Cu

REMARKS

All Applications must be filled out by Applicant

Bldg. Form 2

PLANS AND SPECIFICATIONS
and other data must also be filed

2

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

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Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 FIRST FLOOR

CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX

ENGINEER PLEASE VERIFY

Lot 115 Block 3974

(Description of Property)

Southern Dist. agricultural Park

Dist. No. 18 M. B. Page 1 F. B. Page —

O. K. City Clerk By ____ Deputy.

No. 3974

(Location of Job)

So. Vermont Ave Street

(USE INK OR INDELIBLE PENCIL)

C. K. City Engineer By ____ Deputy.

1. Purpose of Building Real Estate No. of Rooms one No. of Families no
2. Owner's name Chester A Sheeny Phone no
3. Owner's address 920 W 78th St City
4. Architect's name no Phone
5. Contractor's name owner Phone
6. Contractor's address owner
7. ENTIRE COST OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, etc.} $ 400.00
8. Any other building on the lot? no How used? no
9. Size of proposed building 12 x 14 Height to highest point 10 feet
10. Number of stories in height one Character of ground level
11. Material of foundation Redwood Size of footings Size wall 8" Depth below ground
12. Material of chimneys no Number of inlets to flue no Interior size of flues no
13. Give sizes of following materials: REDWOOD MUDSILLS 2 x 6 Girders 3 x 4
    EXTERIOR studs 2 x 3 INTERIOR BEARING studs 2 x 3 Interior Non-Bearing studs
    x Ceiling joist 2 x 3 Roof rafters 2 x 3 FIRST FLOOR JOISTS 2 x 6
    Second floor joists no Specify material of roof Tar Paper
14. Will all provisions of State Dwelling House Act be complied with? yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Chester A Sheeny
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	
16107 ✓	Plan Examiner.	SEP 16 1920 Clerk.	RECEIVED SEP 16 1920 L.A. Bldg. Dept.

J. Callaway

Bldg. Form 2

All Applications must be filled out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

2

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 FIRST FLOOR
CITY CLERK PLEASE VERIFY

Lot 113 Block
(Description of Property)
S Alvarado
Part of Lot

Dist. No. 6 M. B. Page 16 F. B. Page

O.K. City Clerk By Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX
ENGINEER PLEASE VERIFY

No. 3972½ South Vermont Ave
(Location of Job)
Bet. Leighton and Santa Barbara Streets

O.K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Dwelling No. of Rooms 4 No. of Families one
2. Owner's name J. M. Chapin Phone Ver-5660
3. Owner's address 3972 S. Vermont ave
4. Architect's name L A Smith Phone 25025
5. Contractor's name L A Smith Phone 25025
6. Contractor's address 1090 W. 35th St
7. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 6000. one family
8. Is there any existing (old) building on lot? Yes What for? Dwelling
9. Size of proposed building 22 x 26 Height to highest point 16 feet
10. Number of Stories in height one Character of ground Sandy
11. Material of foundation Wood Size of footings 6 Size of wall — Depth below ground —
12. Material of chimneys Brick Number of inlets to flue one Interior size of flues 8 x 8
13. Give sizes of following materials: REDWOOD MUDSILLS 2 x 6 Girders 4 x 4
EXTERIOR studs 1 x 12 INTERIOR BEARING studs 1 x 12 Interior Non-Bearing studs 1 x 12 Ceiling joist 2 x X Roof rafters 2 x 4 FIRST FLOOR JOISTS 2 x 6
Second floor joists 2 x 3 Specify material of roof Composition Paper
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) J. M. Chapin
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO. 32939	Plans and specifications checked and found to conform to Ordinances, State Laws, etc. ..... Plan Examiner.	Application checked and found O. K. ..... Clerk.	Stamp here when permit is issued. CITY NOV 23 1927 FOUR

All Applications Must be Filled Out by Applicant

Bldg. Form 1

PLANS AND SPECIFICATIONS and other data must also be filed

1

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Buildings

CLASS "~~A~~, ~~B~~"—"C"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

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Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 113 Block Rancho Santa Barbara Tract (Book 7 Page 363 Miscellaneous Records)

(Description of Property)

District No. 15 M. B. Page 11 F. B. Page 212

O. K. City Clerk By Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3972-74 Vermont Ave Street

(Location of Job)

Between Santa Ana Ave and Florence Blvd

O. K. City Engineer Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Residence No. of Rooms 3 No. of Families 1
2. Owner's name H. H. Ledbetter Phone AD 06-29 64-74
3. Owner's address 3969 Fifth Avenue
4. Architect's name E. F. Kreiker 430 Broadway Phone MA 0495
5. Contractor's name Owner Phone AD 06-29 64-74
6. Contractor's address 6926 Putnam Place
7. TOTAL VALUATION OF BUILDING {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 12000.00
8. Any other buildings on lot at present? No How used?
9. Size of proposed building 50 x 165 Size of lot 50 x 165 feet
10. Number of stories in height one Height to highest point 20 ft.
11. Material of foundation Concrete Character of soil Loam
12. Material of exterior walls Brick
13. Material of interior construction Lath & Plaster
14. Material of floors Concrete & Linoleum
15. Material of roof Tarred

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree, if a permit is issued, that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that the plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

OVER

(Sign here) H. H. Ledbetter

(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
441	Plan Examiner	Clerk	AUG 6 1925 ISSUED

1/7/25 GC

GC

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot.....	Lot.....
.....	.....
Tract.....	Tract.....

Present location of building: 3972 So. Vermont Ave. (House Number and Street)

New location of building: ..... (House Number and Street)

Between what cross streets: .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building Garage Public Families.....Rooms.....
   (Store, Residence, Apartment House, or any other purpose)
2. Use of building AFTER alteration ~~or moving~~ Garage Public Families.....Rooms.....
3. Owner (Print Name) Mrs. Flora Masciotra Phone.....
4. Owner's address 3972 So. Vermont
5. Certificated Architect Marcus P. Miller State License No. B1525 Phone.....
6. Licensed Engineer H. P. King State License No. 5163 Phone WH-2917
7. Contractor Edward Goral State License No. 393 Phone YO-1741
8. Contractor's address 174 So. Detroit
9. VALUATION OF PROPOSED WORK (Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.) Approved $4,000.00
10. State how many buildings NOW on lot and give use of each: One
    (Residence, Hotel, Apartment House, or any other purpose.)
11. Size of existing building 50 x 169 Number of stories high 1 Height to highest point 18'
12. Class of building C Material of existing walls Brick Exterior framework Brick
    (Wood or Steel)

Describe briefly and fully all proposed construction and work:

Stucco front - remove interior partitions and place new trusses.

New roofing - New concrete slab floor.

9/17/37

Fill in Application on other Side and Sign Statement (OVER)

FOR DEPARTMENT USE ONLY

PERMIT NO. 5522

Plans and Specifications checked 2/24/37

Zone C

Fire District No. 3

Corrections verified 2/24/37

Set Back 10 Ft.

Street Widening 10 Ft.

Plans, Specifications and Applications rechecked and approved

Application checked and approved 2/24/37

PLANS Rec'd 2/17/37

For Plans See

Filed with

SPRINKLER Required Valuation Included Specified Yes—No

Fee 15.00

Stamp here when Permit is issued

FEB 24 1937

Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition None Size of Lot 50 x 169 Number of Stories when complete 1

Material of Foundation concrete Width of Footing existing Depth of footing below ground

Width Foundation Wall Size of Redwood Sill none Material Exterior Walls

Size of Exterior Studs none x Size of Interior Bearing Studs none x

Joists: First Floor none Second Floor none Rafters 2 x 8 Roofing Material composition

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here Edw. Gorad
(Owner or Authorized Agent)

By J. A. King

FOR DEPARTMENT USE ONLY

Application	Fire District RS	Set back	Termite Inspection
Construction	Zoning	Street Widening	Forced Draft Ventil

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

PLAN CHECKING
RECEIPT NO. 1-537
VALUATION $ 4050
FEE PAID $ 7.50

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot.....	Lot.....
.....	.....
Tract.....	Tract.....

Present location of building } 3980½ So Vermont
(House Number and Street)

New location of building } .....
(House Number and Street)

Between what cross streets } .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building..... Rear ..... Families..... 1 ..... Rooms..... 5 .....
Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving..... Res ..... Families..... 1 ..... Rooms..... 5 .....
3. Owner (Print Name)..... George and Mary Vartanian ..... Phone.....
4. Owner's address..... 3980 So Vermont .....
5. Certificated Architect..... State License No..... Phone.....
6. Licensed Engineer..... State License No..... Phone.....
7. Contractor..... Benefit Building & Repair Service ..... State License No..... 44441 ..... Phone..... T.W. 4318 .....
8. Contractor's address..... 5020 West Blvd ..... as [illegible]
9. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $..... 300 .....
10. State how many buildings NOW on lot and give use of each. } ..... 3 Residence's + store .....
Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building..... 20' ..... x ..... 40' ..... Number of stories high..... 1 ..... Height to highest point..... 15' .....
12. Class of building..... D ..... Material of existing walls..... siding ..... Exterior framework..... Wood .....
Wood or Steel

Describe briefly and fully all proposed construction and work:

6" metal corners to be installed over siding corners to replace all bad siding, to paint outside

No structural Change

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO. 7450	FOR DEPARTMENT USE ONLY			Fee..... 2 .....
	Plans and Specifications checked	Zone C	Fire District No.	Stamp here when Permit is issued
	Corrections verified	Set Back 10 Ft.	Street Widening Ft.	MAR 11 1937
PLANS Rec'd.....	Plans, Specifications and Applications rechecked and approved	Application checked and approved ..... Clerk.		
	For Plans See	Filed with	SPRINKLER Required Specified Valuation Inspection Yes No	Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here Benefit Building & Repair Service
(Owner or Authorized Agent)

By J. H. Bronnenberg Jr.

FOR DEPARTMENT USE ONLY

Application.....	Fire District.....	Set back.....	Termite Inspection.....
Construction.....	Zoning.....	Street Widening.....	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

All applications must be filled out by applicant.

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Ward 5

Applicant must indicate the Building Line or Lines clearly and distinctly on the Drawings.

Application for Erection of Frame Buildings

CLASS "D"

Application is hereby made to the Chief Inspector of Buildings of the City of Los Angeles, for the approval of the detailed statement of the specifications and plans herewith submitted for the erection of the building herein described. All provisions of the Building Ordinances shall be complied with in the erection of said building, whether specified herein or not.

(Sign here) Harry E Wilson

Los Angeles, Cal., APR 22 1908 190 8

TAKE TO ROOM NO. 6 FIRST FLOOR

ASSESSOR PLEASE VERIFY

Lot No. As per Book #119 Block University and adjoining tracts

La Diza Agricultural Park & Adj Lots

D L Mallard

District No. 18 M. B. page 14 F. B. page 225-Above

TAKE TO ROOM NO. 34 THIRD FLOOR

ENGINEER PLEASE VERIFY

No. 3980 Vermont Ave Street

O K E G

1. Purpose of the building Residence
2. Number of rooms 4
3. Is any part to be used for store or other business purposes? No
4. Owner's name Laura B Wilson
5. Owner's address 3836 Remick St
6. Architect's name Garnet T Bixby
7. Builder's name Harry E Wilson
8. Builder's address 3836 Remick St
9. Entire cost of proposed building, $500.00
10. Will building be erected on front or rear of lot? Front
11. Size of lot 50 x 165 Size of building 22 x 36
12. Number of stories in height 1; height from curb level to highest point 17 ft
13. Height of first floor above curb level 2 ft
14. What is the character of the ground: rock, clay, sand, filled, etc.? Sand
15. What will be the depth of the foundation below curb level? 6"
16. Of what material will foundation and cellar walls be built? Brick
17. Give dimensions of footings 13" footings
18. Give thickness of foundation and cellar walls at top 8"
19. Number and kind of chimneys 1 Brick Number of flues 1
20. Number of inlets to each flue 1 Interior size of flues 8 x 8 ~~4" x 4"~~
21. What will be the size of the mud sills 2 x 6 Size of girders or stringers 4 x 4
22. What will be the size of exterior studs? 2 x 3 Interior studs 2 x 3
23. Bearing partition studs 2 x K3

PERMIT NO. 1802 ✓

3.

OVER

24. Give size of floor joist:

First floor 2x6 Third floor x

Second floor x Fourth floor x

25. Give size of ceiling joist 2x3 Size of rafters 2x3

26. Will the roof be peak, flat or mansard? Material of roofing Shingles

27. Will cellar or basement ceiling be plastered? Metal or wood lath? Wood

28. Of what material will floors be constructed? Wood

How many thicknesses? 1

What kind of fireproofing? None

29. How will hall and soffits of stairs be plastered?

30. How many fire escapes will be provided? Where placed?

31. Are any buildings to be demolished? How many?

REMARKS.

This is a one story bungalow and the cheapest the owner will allow.

All Applications must be filled out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 2

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. 29 Block 2

(Description of Property)

Monta Vista

District No. 15 M. B. Page 12 F. B. Page 24 8

O.K. City Clerk By Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 3960 Vermont ave Street

(Location of Job)

Lot Burning & Santa Barbara

O.K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Store No. of Rooms 5 No. of Families one
2. Owner's name M. Enright Phone
3. Owner's address 539 S Flower
4. Architect's name James Joseph Norton Phone 19227 evenings
5. Contractor's name J. J. Norton Phone
6. Contractor's address P O Box 1233 Los angeles
7. VALUATION OF PROPOSED WORK (Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.) $ ~~One hundred~~ 00
8. Is there any existing (old) building on lot? Yes How used? Residence
9. Size of proposed building 20 x 40 Height to highest point 23 feet
10. Number of Stories in height two Character of ground level loam
11. Material of foundation Concrete Size of footings 16 Size of wall 16 Depth below ground 16"
12. Material of chimneys none Number of inlets to flue none Interior size of flues none
13. Give sizes of following materials: REDWOOD MUDSILLS 4 x 4 Girders Concrete
EXTERIOR studs 2 x 4 INTERIOR BEARING studs 2 x 4 Interior Non-Bearing studs 2 x 4 Ceiling joists 2 x 4 Roof rafters 2 x 6 FIRST FLOOR JOISTS ~~2 x 10~~ Concrete
Second floor joists 2 x 10 Specify material of roof Composition
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER 3/19/23 8 rms. 1 bath

(Sign here) James Joseph Norton

(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is ISSUED
12461	Plan Examiner	Clerk	MAR 20 1923 Bldg. Dept.

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K. Kazeen
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

I HEREBY AGREE TO LOCATE AND ERECT THIS BUILDING OR STRUCTURE AND EVERY PORTION THEREOF, EXCEPT UNENCLOSED PORCHES, BACK A DISTANCE FROM THE FRONT PROPERTY LINE EQUAL TO THE SET-BACK LINE OF THE NEAREST BUILDING ON EITHER SIDE OF THIS PROPOSED BUILDING OR STRUCTURE.

J. J. Morton

Owner

Bldg. Form 8

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot	Lot
Tract	Tract

Present location of building } 3980 So Vermont (House Number and Street)

New location of building } (House Number and Street)

Between what cross streets }

Approved by City Engineer.

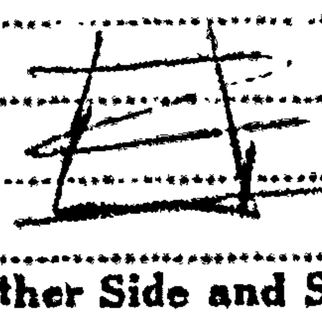
Deputy.

1. Purpose of PRESENT building Cleaners Families Rooms
(Store, Residence, Apartment House, Hotel, or any other purpose)
2. Use of building AFTER alteration or moving Families Rooms
3. Owner (Print Name) O. Vaitunas Phone
4. Owner's Address 3980 So Vermont
5. Certificated Architect None State License No. Phone
6. Licensed Engineer None State License No. Phone
7. Contractor Calif Awning Co State License No. 47841 Phone PA 2861
8. Contractor's Address 3711 W. Washington
9. VALUATION OF PROPOSED WORK {Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and/or elevator equipment therein or thereon.} $ 28 00
DOUBLE FEES
10. State how many buildings NOW on lot and give use of each. (Residence, Hotel, Apartment House, or any other purpose)
11. Size of existing building x Number of stories high Height to highest point
12. Class of building D Material of existing walls Exterior framework (Wood or Steel)

Describe briefly and fully all proposed construction and work:

1 Rope awning Recover

176 x 60 x 30





DOUBLE FEES

Fill in Application on other Side and Sign Statement (OVER)

2 00

PERMIT NO.	FOR DEPARTMENT USE ONLY		Fee
16515	Plans and Specifications checked	Zone / Fire District No.	Stamp here when Permit is issued: MAY 18 1937
	Corrections verified	Bldg. Line Ft. / Street Widening Ft.	
	Plans, Specifications and Applications rechecked and approved	Application checked and approved 5/18/37 Clerk	
PLANS Rec'd	For Plans See / Filed with	SPRINKLER Required / Specified Yes—No; Valuation Included	Inspector

2

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation .....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here Calif Awning Co
(Owner or Authorized Agent)

By J Carson

FOR DEPARTMENT USE ONLY

Application	Fire District.....	Bldg. Line	Termite Inspection.....
Construction.....	Zoning	Street Widening	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here.....
(Owner or Authorized Agent)

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here.....
(Owner or Authorized Agent)

REMARKS: .....

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot.....	Lot.....
.....	.....
Tract.....	Tract.....

Present location of building } 3980 So Vermont (House Number and Street)

New location of building } ..... (House Number and Street)

Between what cross streets } .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building Store + Res Taylor shop in first floor Families 1 Rooms 5 upstairs
(Store, Residence, Apartment House, Hotel, or any other purpose)
2. Use of building AFTER alteration or moving ..... Families 1 and taylor shop Rooms 5
3. Owner (Print Name) GEORGE AND MARY VARTANIAN Phone .....
4. Owner's Address 3980 So Vermont
5. Certificated Architect ..... State License No. ..... Phone .....
6. Licensed Engineer ..... State License No. ..... Phone .....
7. Contractor Benefit Building & Repair Service State License No. 44441 Phone TH. 4319
8. Contractor's Address 6020 West Blvd Los Angeles
9. VALUATION OF PROPOSED WORK {Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and/or elevator equipment therein or thereon.} $ 900 ~~1500~~
10. State how many buildings NOW on lot and give use of each. } 3 buildings (Residence, Hotel, Apartment House, or any other purpose)
11. Size of existing building 20'6" x 40'3" Number of stories high 2 Height to highest point 23
12. Class of building D Material of existing walls 1/2X6 siding Exterior framework Wood (Wood or Steel)

Describe briefly and fully all proposed construction and work:

To petition for a living room, dining room and bed rooms changing present inside walls. Installing new plumbing fixtures, new kitchen cabinet. Install skylight on or between kitchen & back size of glass 16"X28" 2 glass on each side. ~~Make repairs to outside walls on all 3 buildings.~~ Repair garage. Paint ~~the~~ outside of all buildings.

3/8/37

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO. 7452	FOR DEPARTMENT USE ONLY		Fee 5.50
	Plans and Specifications checked	Zone 6 / Fire District No. 3	Stamp here when Permit is issued
	Corrections verified	Bldg. Line 40 Ft. / Street Widening 40 Ft.	MAR 11 1937
	Plans, Specifications and Applications rechecked and approved	Application checked and approved ..... Clerk	
PLANS Rec'd 3-9-37	For Plans See ..... Filed with	SPRINKLER Required ..... Specified ..... Valuation Includes	Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here.....
(Owner or Authorized Agent)

By.....

FOR DEPARTMENT USE ONLY

Application	Fire District	Bldg. Line	Termite Inspection.....
Construction.....	Zoning	Street Widening	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here.....
(Owner or Authorized Agent)

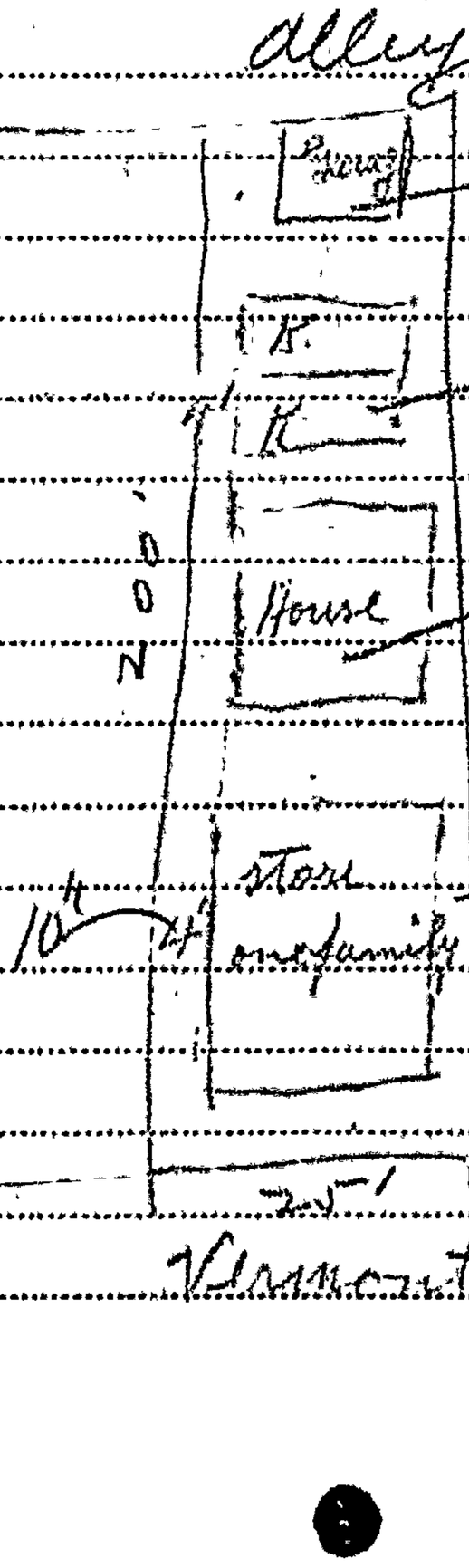
(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here.....
(Owner or Authorized Agent)

REMARKS: .....

PLAN CHECKING
RECEIPT NO. 15879
VALUATION $ 150
FEE PAID $ 2.50

Valuation reduced to $900
2 other permits for remainder of bldg.



Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot.....	Lot.....
.....	.....
Tract.....	Tract.....

Present location of building: 3980½ So Vermont (House Number and Street)

New location of building: ..... (House Number and Street)

Between what cross streets: .....

Approved by City Engineer.

..... Deputy.

1. Purpose of PRESENT building ~~1 Family Res~~ 2 Family Res ..... Families 2 Rooms 6
   Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving 2 Family Res ..... Families 2 Rooms 6
3. Owner (Print Name) George and Mary Vartania ..... Phone .....
4. Owner's address 3980 So Vermont .....
5. Certificated Architect ..... State License No. ..... Phone .....
6. Licensed Engineer ..... State License No. ..... Phone .....
7. Contractor Benefit Building & Repair Service State License No. 44441 Phone TH. 4319
8. Contractor's address 60 West Blvd .....
9. VALUATION OF PROPOSED WORK (Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.) $ 200 OK. 200
10. State how many buildings NOW on lot and give use of each. 3 Residences & store
    Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building 25" x 40" Number of stories high 1 Height to highest point 18"
12. Class of building D Material of existing walls siding Exterior framework wood
    Wood or Steel

Describe briefly and fully all proposed construction and work:

For repair outside siding and paint same

Re-shingled Shingle

Fill in Application on other Side and Sign Statement (OVER)

FOR DEPARTMENT USE ONLY			
PERMIT NO. 7449	Plans and Specifications checked	Zone C	Fire District No.
	Corrections verified	Set Back No Ft.	Street Widening Ft.
	Plans, Specifications and Applications rechecked and approved	Application checked and approved ... Clerk.	
PLANS Rec'd	For Plans See	Filed with	SPRINKLER Required Valuation Specified Yes No

Fee 3.00

Stamp here when Permit is issued

MAR 11 1937

Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here Benefit Building & Repair Service
(Owner or Authorized Agent)

By D. F. Bronnenspack

FOR DEPARTMENT USE ONLY			
Application.....	Fire District.....	Set back.....	Termite Inspection .....
Construction.....	Zoning	Street Widening.....	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

2

Application for Relocation of Building AND FOR A Certificate of Occupancy

Form 3-4

CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY
BUILDING DIVISION

From. Lot Part of 119 | To. Lot 74

Tract So. Dist AGRICULTURAL PARK | Tract Walker Tr.

Present location of building: 3480 S. Vermont Ave (House Number and Street)

New location of building: 10960 Low Dillon Ave (House Number and Street)

Between what cross streets: Santa Ana Blvd. & 108th St.

Approved by City Engineer _____ Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building Dwelling (Store, Dwelling, Apartment House, Hotel or other purpose) Families 1 Rooms 5
2. Use of building AFTER Relocation Dwelling Families 1 Rooms 5
3. Owner Main Home Builder's Inc. (Print Name) Phone AD-2101
4. Owner's Address 4774 So Main St c/o 4801 Expedition Blvd. P.O. Lt
5. Certificated Architect — State License No. — Phone —
6. Licensed Engineer — State License No. — Phone —
7. Contractor Owner State License No. — Phone —
8. Contractor's Address —
9. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon.) $2200.00 Est
10. State how many buildings now on new lot and give use of each: None (Store, Dwelling, Apartment House, Hotel or other purpose) Show new Plot Plan on back of Application.
11. Size of building to be moved 20 x 42'-9" Number of stories high 1 Height to highest point 14'
12. Material Exterior Walls Wood (Wood, Steel or Masonry) Exterior framework Wood (Wood or Steel)
13. Describe briefly all proposed construction and work:
Call Owner as bldg will be moved

I certify that the issuance of this permit will not violate any deed restriction of record.

X _____ Owner
(MUST BE SIGNED BY OWNER)

NEW CONSTRUCTION

14. Size of Addition x Size of Lot x Number of Stories when complete
15. Footing: Width Depth in Ground Width of Wall Size of Floor Joists x
16. Size of Studs x Material of Floor Size of Rafters x Type of Roofing

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here Main Home Builders, Inc (Owner or Authorized Agent)

District Office

By Otto Ewert

FOR DEPARTMENT USE ONLY

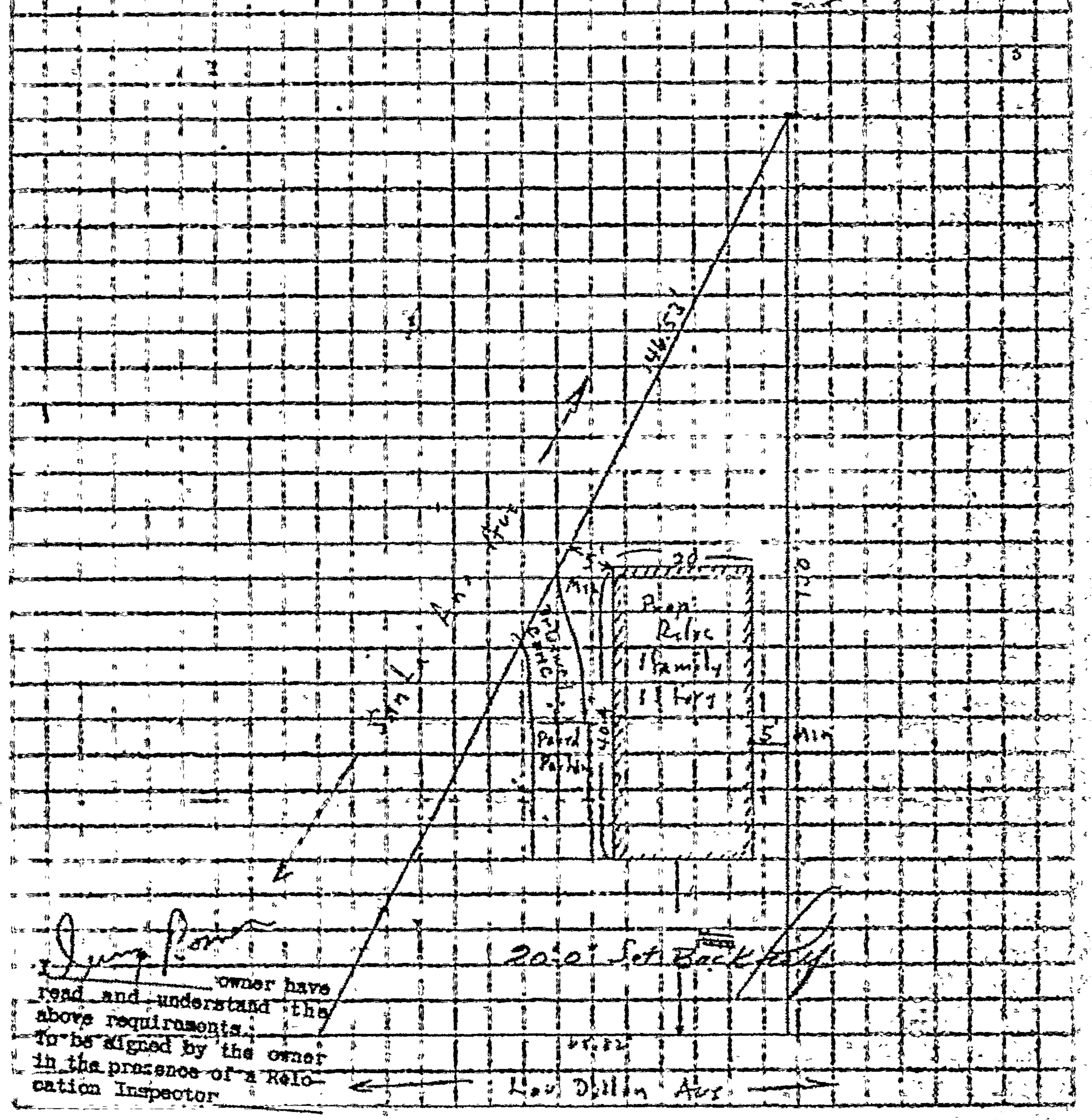
PLAN CHECKING Valuation $ Fee $	Date Approved 10/10/51 OEE Bond For $ 2500.00	Surety Bond Posted Date OCT 19 1951 Cash Bond Posted Date	FEES Investigation $ Bldg. Permit $ Total $ 9.00

TYPE V	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Keyed	Lot Size 42 x 143.33	Ft. rear alley / Ft. side alley; Clerk Pmt
GROUP V-1	Plans and Specifications checked		Zone R-3	Fire District No.	District Map No. 174-56
For Plans See	Correction Verified		Bldg. Line Ft.	Street Widening Ft.	Application checked and approved Clerk
Filed with	Plans, Specifications and Application rechecked and approved		Sewer Capping Permit No.		Inspector

DO NOT WRITE BELOW THIS LINE

TYPE OF RECEIPT	DATE ISSUED	TRACER NO. (M)	RECEIPT NO.	CODE	FEE PAID
Application Fee	OCT -5 1951		1153	A1	
Plan Checking					$
Building Permit	OCT 19 1951		LA21219		

I _____ owner have read and understand the above requirements to be signed by the owner in the presence of a Relocation Inspector



All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 3

BUILDING DIVISION

DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

	REMOVED FROM	REMOVED TO
TAKE TO ROOM No. 248 (2ND FLOOR) CITY CLERK PLEASE VERIFY	Lot 1 2 3 Block Tract Southern Pacific Agricultural Park	Lot 1 2 3 Block Tract
TAKE TO ROOM No. 5 (MAIN ST. FLOOR) ENGINEER PLEASE VERIFY	Book 18 Page 11 F. B. Page 285 From No. 3984 ½ Do To No. 3984 ½ "	Book 18 Page 11 F. B. Page 285 Vermont Ave Street ± 15 Parkview Street

O. K. City Clerk By ____ Deputy

O. K. City Engineer By ____ Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? office
2. What purpose will Building be used for hereafter? "
3. Owner's name Clark Motor Co Phone
4. Owner's address 3984 Do Vermont
5. Architect's name Phone
6. Contractor's name H. Donelson Phone
7. Contractor's address 411 West 41st St
8. VALUATION OF PROPOSED WORK (Including all Material Labor, Finishing, Equipment and Appliances in Completed Building.) $ 150.00
9. Class of present Building Frame No. of rooms at present 1
10. Number of stories in height 1 Size present Building 20' x 20'
11. State how many buildings are on this lot One
12. State purpose buildings on lot are used for Garage (Apartment House, Hotel, Residence, or any other purpose.)
13. What Zone is Property in? C

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Move building to rear of lot and construct foundations and underpin same. Lot 100 ft. back from future building line. Moving.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

☞ OVER

(Sign here) H. Donelson
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp paid
17822	Plan Examiner	7/29/30 Zone C Clerk	JUL 31 1930

TERMITE INSPECTION O.K. ok E.K. Betts

$2.00

14. Size of new addition 8ax6 No. of Stories in height 1

15. Material of foundation Cement Size footings 12" size wall 6" Depth below ground 6"

16. Size of Redwood Mudsills 2" x 6" Size of interior bearing studs 2 x 4"

17. Size of exterior studs 2 x 4 Size of interior non-bearing studs x

18. Size of first floor joists 2 x 6 Second floor joists x

19. Will all Lathing and Plastering Comply with Ordinance? Yes

20. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinance and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) H Donelson
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O.K. ok
CONSTRUCTION	O.K. ok
ZONING	O.K. ok
SET-BACK LINE	O.K. ok
ORD. 33761 (N. S.)	O.K. ok
FIRE DISTRICT	O.K. ok

REMARKS

The building referred to in this application will be more than 100 feet from Vermont Street

Homer Donelson
Owner or Authorized Agent

3

APPLICATION TO ALTER, REPAIR, or DEMOLISH
AND FOR A
Certificate of Occupancy

Form B-1
CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY
BUILDING DIVISION

Lot No. ____

Tract ____

Location of Building 3784 S. VERMONT
(House Number and Street)

Between what cross streets? LOCHTRAY SANTA BARBARA

Approved by City Engineer ____

Deputy ____

USE INK OR INDELIBLE PENCIL

1. Present use of building STORE (Store, Dwelling, Apartment House, Hotel or other purpose) Families ____ Rooms ____
2. State how long building has been used for present occupancy ____
3. Use of building AFTER alteration or moving ____ Families ____ Rooms ____
4. Owner SAME OF RECORD (First Name) Phone ____
5. Owner's Address 317 W. 7TH ST. P. O. ____
6. Certificated Architect ____ State License No. ____ Phone ____
7. Licensed Engineer ____ State License No. W. 230 Phone ____
8. Contractor CLEVELAND WRECKING CO. State License No. 91067 Phone 706175
9. Contractor's Address 175 E. JEFFERSON
10. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon) $ 100.00
11. State how many buildings NOW on lot and give use of each ____ 1 (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 30 x 30 Number of stories high 1 Height to highest point 16'
13. Material Exterior Walls WOOD (Wood, Steel or Masonry) Exterior framework WOOD (Wood or Steel)
14. Describe briefly all proposed construction and work: REMOVE TO GRADE

TYPE OF RECEIPT | DATE ISSUED | TRACER NO. (M) | RECEIPT NO. | CODE | FEE PAID
Cleaning and Checking
Tracing
Microfilm
Other

NEW CONSTRUCTION

15. Size of Addition x ____ Size of Lot ____ x ____ Number of Stories when complete ____
16. Footing: Width ____ Depth in Ground ____ Width of Wall ____ Size of Floor Joists ____ x ____
17. Size of Studs ____ x ____ Material of Floor ____ Size of Rafters ____ x ____ Type of Roofing ____

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here CLEVELAND WRECKING CO.
(Owner or Authorized Agent)
By ____

DISTRICT OFFICE ____

FOR DEPARTMENT USE ONLY

PLAN CHECKING	OCCUPANCY SURVEY	
Valuation $ ____ Fee $ ____	Area of Bldg. ____ Sq. Ft. Fee $ ____	Investigation Fee's ____ Cert. of Occupancy Fee $ ____ Bldg. Permit Fee $ 1.50 Total $ ____

TYPE	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Keyed	Plot	____ Ft. rear alley ____ Ft. side alley	Clerk
GROUP	Plans and Specifications checked	Zone C-2	Fire District No. 2		District Map No. 216	
Fee Plans Rec	Corrections Verified	Bldg. Line ____ Ft.	Street Widening ____ Ft.		Application checked and approved ____ Clerk	
Filed with	Plans, Specifications and Application rechecked and approved.	Continuous Inspection	SPRINKLER Specified—Required Valuation Included Yes— —No		Inspector	

DO NOT WRITE BELOW THIS LINE

TYPE OF RECEIPT	DATE ISSUED	TRACER NO. (M)	RECEIPT NO.	CODE	FEE PAID
Plan Checking					
Supplemental Plan Checking					
Building Permit				LA15565	

All Applications must be filled out by Applicant

Bldg. Form 2

PLANS AND SPECIFICATIONS and other data must also be filed

2

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR
CITY CLERK PLEASE VERIFY

Lot No. 128 Block ....
(Description of Property) Southern District Agricultural Park.
District No. 18 M. B. Page 14 F. B. Page 309

O. K. City Clerk By ... Deputy

X TAKE TO ROOM No. 405 SOUTH ANNEX
ENGINEER PLEASE VERIFY

No. 3986 S. Vermont Ave. Street
(Location of Job) bet. Leighton & Santa Barbara

O.K. City Engineer By ... Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Private Storage No. of Rooms (1 Gar.) No. of Families ....
2. Owner's name Alfred Schwangara Phone Ver. 926
3. Owner's address 3976 S. Vermont Ave
4. Architect's name " " Phone "
5. Contractor's name Owner " Phone "
6. Contractor's address " "
7. VALUATION OF PROPOSED WORK (Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.) $ 100.00
8. Is there any existing (old) building on lot? Yes How used? Store & Garage
9. Size of proposed building 12 x 50 Height to highest point (10) Feet feet
10. Number of Stories in height one Character of ground Sandy Loam
11. Material of foundation R.W. Size of footings — Size of wall — Depth below ground —
12. Material of chimneys — Number of inlets to flue — Interior size of flues — x —
13. Give sizes of following materials: REDWOOD MUDSILLS 2 x 6 Girders 3 x 4
EXTERIOR studs 2 x 4 INTERIOR BEARING studs None Interior Non-Bearing studs 2 x 4 Ceiling joists None Roof rafters 2 x 4 FIRST FLOOR JOISTS 2 x 6
Second floor joists x Specify material of roof 1 Layer Comp Roofing
14. Will all provisions of State Dwelling House Act be complied with? ....

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) Alfred Schwangara
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
[redacted]	..... Plan Examiner	..... Clerk	JAN 25 1922

1.50

12/11/05 Am

1.50

REMARKS

144 Lgr ft of shed to be floored for store
none

All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 3

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 248 (2ND FLOOR) CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 5 (MAIN ST. FLOOR) ENGINEER PLEASE VERIFY

REMOVED FROM	REMOVED TO
Lot ..... Block	Lot ..... Block .....
Tract	Tract .....
Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....
From No. 3986 Santa Vermont ave ..... Street	
To No. between Santa Barbara & Browning Street	

O. K. City Clerk By ..... Deputy

O. K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Sign Painting
2. What purpose will Building be used for hereafter? Sign Painting
3. Owner's name Alfred Schwarzgard Phone Rep. 5904
4. Owner's address 3986 3/4 So. Vermont ave.

Not to be filled in unless with name of Certificated Architect or Licensed Engineer under State Act

5. Architect's name ..... Phone .....
6. Contractor's name Homer O Donelson Phone AX 9604
7. Contractor's address 411 W. 41st. st.
8. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 200.00
9. Class of present Building C No. of rooms at present 1
10. Number of stories in height One Size present Building 24' x 100'
11. State how many buildings are on this lot 4 - 1 shed 12'x50' - Garages
12. State purpose buildings on lot are used for 1 3 Room Dwelling, and 3 Sign Shops (Apartment House, Hotel, Residence, or any other purpose.)
13. What Zone is Property in? C

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Present Bldg. to be cut in half size to be 24'x52' putting in Concrete foundation and new portion of Concrete floor 24'x28' total size when completed 24'x52'

I have carefully examined and read the above application and know the same is true and correct, and that all provisio..s of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

☞ OVER

(Sign here) Alfred Schwarzgard
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O.K.	Stamp here when permit is issued
17650	E. H. Finley Plan Examiner	7-29-30 Zone C Lewis MSB Clerk	JUL 29 1930

E. H. Bailey

2.00

14. Size of new addition 9 rms x ..... No. of Stories in height .....

15. Material of foundation ..... Size footings ..... size wall ..... Depth below ground .....

16. Size of Redwood Mudsills ..... x ..... Size of interior bearing studs ..... x .....

17. Size of exterior studs ..... x ..... Size of interior non-bearing studs ..... x .....

18. Size of first floor joists ..... x ..... Second floor joists ..... x .....

19. Will all Lathing and Plastering Comply with Ordinance? .....

20. Will all provisions of State Housing Act be complied with? .....

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) Alfred Schwarzgard
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT 3	O. K.

REMARKS

There will be an unobstructed passageway, at least 10 feet wide, extending from any dwelling on lot to a public street, or to a public alley at least 10 feet in width.

Alfred Schwarzgard
Owner or Authorized Agent

No required windows will be obstructed.

Alfred Schwarzgard
Owner or Authorized Agent

1 C

APPLICATION TO CONSTRUCT NEW BUILDING AND FOR CERTIFICATE OF OCCUPANCY

CITY OF LOS ANGELES — DEPT. OF BUILDING AND SAFETY

1. LEGAL LOT: 123	BLK.: —	TRACT: Southern District Agr. Park Tr.	DIST. MAP: 429
JOB ADDRESS: 3986 So. Vermont Ave		APPROVED: [illegible]	ZONE: C-2
2. BETWEEN CROSS STREETS: Santa Barbara Ave AND Livingston Ave.			FIRE DIST.: 2-80
3. PURPOSE OF BUILDING: Shelter & roof sign			INSIDE: X
			KEY
4. OWNER: Foster & Kleiser	PHONE		COR. LOT
			REV. COR.
5. OWNER'S ADDRESS: 1550 W. Washington	P.O.	ZONE	LOT SIZE: 50X168
6. CERT. ARCH.	STATE LICENSE	PHONE	
7. LIC. ENGR.: R. Pax	STATE LICENSE: 8818	PHONE	REAR ALLEY: 20
			SIDE ALLEY: —
8. CONTRACTOR: Owner	STATE LICENSE	PHONE	BLDG LINE: —
9. CONTRACTOR'S ADDRESS	P.O.	ZONE	AFFIDAVITS: —

10. SIZE OF NEW BLDG.	STORIES	HEIGHT	NO. OF EXISTING BUILDINGS ON LOT AND USE	BLDG AREA
4 x 10	1	9'		

11. MATERIAL EXT. WALLS: ☐ WOOD ☐ STUCCO ☒ METAL ☐ BRICK ☐ CONC. BLOCK ☐ CONCRETE
ROOF CONST. ☐ WOOD ☐ CONC. ☒ STEEL ☐ OTHER
ROOFING
SPRINKLERS REQ'D. SPECIFIED

1 3986 S. Vermont

DISTRICT OFFICE: LA

VALIDATION: LA11540

CASHIER'S USE ONLY

AUG-29-58	55735	C — 2 CK	5.00
AUG-29-58	55736	C — 1 CK	9.90

TYPE	GROUP	MAX. OCC.
ROOF	SIGNS	

C. OF O. ISSUED

INSPECTOR

P.C.	S.P.C.	B.P.	I.F.	O.S.	C/O
3-00		9-90			

12. VALUATION: TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING. $2300.00

DWELL. UNITS

VALUATION APPROVED

PARKING SPACES

APPLICATION CHECKED

GUEST ROOMS

PLANS CHECKED

FILE WITH

CORRECTIONS VERIFIED

CONT. INSP.

PLANS APPROVED

APPLICATION APPROVED

I certify that in doing the work authorized hereby I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance.

Foster & Kleiser
SIGNED

This Form When Properly Validated is a Permit to Do the Work Described.

Form B-1

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.

ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND USE OF EACH

5 sqm of visible facia or awning
500' afa free-to-y

Roof

Slow

5'

P.L

5'

22.63

Santa Barbara

Form B-[illegible]

CITY OF LOS ANGELES
Certificate of Occupancy

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

Issued: April 23, 1939

Address of Building: 3986 S. Vermont

Permit No. and Year: LA 11540-1938

This certifies that, so far as ascertained by or made known to the undersigned, the building at above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses; Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act,—for following occupancies:

1 story, type V, 6' x 10' roof sign and shelter, G-1 Occupancy

G. E. MORRIS,
Superintendent of Building

By A. E. HIATT

All Applications must be filled out by Applicant

PLANS AND SPECIFICATIONS and other data filed herewith are hereby made a part of this application.

Bldg. Form 2

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2 Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

Lot No. 123 Block .....
(Description of Property)

District Agricultural Park

District No. 18 M. B. Page 11 F. B. Page 210

No. 3986 So Vermont Ave Street
(Location of Job)
Between Duane and Leighton

O.K. City Clerk By ..... Deputy

O.K. City Engineer By ..... Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Pr. Garage No. of Rooms — No. of Families —
2. Owner's name Vermont Sign Co Phone .....
3. Owner's address 3986 So. Vermont
4. Architect's name ..... Phone .....
5. Contractor's name A. G. Buchanan Phone West 2086
6. Contractor's address 1710 W. Adams
7. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 500.00
8. Is there any existing (old) building on lot? No How used? .....
9. Size of proposed building 20 x 40 Height to highest point 14 feet
10. Number of Stories in height One Character of ground Sandy loam
11. Material of foundation Concrete floor Size of footings — Size of wall — Depth below ground —
12. Material of chimneys ..... Number of inlets to flue — Interior size of flues — x —
13. Give sizes of following materials: REDWOOD MUDSILLS 2 x 6 Girders —
EXTERIOR studs 1x12 California Clear x INTERIOR BEARING studs — x — Interior Non-Bearing studs
— x — Ceiling joists 2 x 4 Roof rafters 2 x 4 FIRST FLOOR JOISTS, — x —
Second floor joists — x — Specify material of roof Composition
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) A. G. Buchanan
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
17186	Plan Examiner	4/7/23 Jno Sands Clerk	APR 17 1923 L.A. Bldg. Dept.

Offset-Lines

12 15

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

All Applications must be filled out by Applicant

Bldg. Form 2

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 FIRST FLOOR

CITY CLERK PLEASE VERIFY

Lot S. 20' of Lot 12 Agricultural Park Tract Block Commercial Park

(Description of Property) N. 10' of Lot 9 Tract 2411

Lot Corner of 39th Place & 39th Street

M.R. 4 - 352

Dist. No. 18 M. B. Page 13 F. B. Page 297

O. K. City Clerk By Deputy.

TAKE TO ROOM No. 405 SOUTH ANNEX

ENGINEER PLEASE VERIFY

No. ~~3925~~ 3994 (Location of Job) S. Vermont Ave. Street

O. K. City Engineer By Deputy.

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Real Estate Office No. of Rooms No. of Families
2. Owner's name Chas. C. Dooley Phone
3. Owner's address Superior Hotel W. 6th St
4. Architect's name L. B. Noyes Phone
5. Contractor's name " " " Phone
6. Contractor's address 1112 West 43rd Street
7. ENTIRE COST OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, etc.} $ 400.00
8. Any other building on the lot? Yes How used? Barn
9. Size of proposed building 10 x 16 Height to highest point 14 feet
10. Number of stories in height 1 Character of ground Level
11. Material of foundation Redwood Size of footings Size wall Depth below ground
12. Material of chimneys None Number of inlets to flue — Interior size of flues — x
13. Give sizes of following materials: REDWOOD MUDSILLS 2 x 6 Girders 2 x 6
    EXTERIOR studs 2 x 3 INTERIOR BEARING studs 2 x 3 Interior Non-Bearing studs 2 x 3 Ceiling joist 4 x 4 Roof rafters 2 x 3 FIRST FLOOR JOISTS 2 x 6
    Second floor joists — x — Specify material of roof 3 Ply Tuff
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

☛ OVER

(Sign here) Chas. C. Dooley
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO. 7051	Plans and specifications checked and found to conform to Ordinances, State Laws, etc. Plan Examiner.	Application checked and found O. K. J. H. Ivey Clerk.	Stamp below when permit is DEPARTMENT OF BUILDINGS SEP 28 1924 ISSUED

7 Blk Flowers

1 7

REMARKS

Please change application from
3923 SO Fremont
to 3994 SO Fremont
reason Wrong Address
10-5-20

Date

(Owner or Agent)

All Applications Must be Filled Out by Applicant

Bldg. Form 1

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

DEPARTMENT OF BUILDING AND SAFETY

1 Application for the Erection of Buildings

CLASS "A"—"B"—"C" Brick

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 REAR OF NORTH ANNEX 1st Floor

CITY CLERK PLEASE VERIFY

Lot No. 126 & 127 Block

(Description of Property)

Southern District Agricultural Park Tract

O. K. City Clerk By Deputy

TAKE TO FIRST FLOOR 242 SO. BROADWAY

ENGINEER PLEASE VERIFY

District No. 18 M. B. Page 11 F. B. Page 210

No. 3990 S. Vermont Ave. Street

(Location of Job)

Bet. Leighton Ave & Santa Barbara

O. K. City Engineer By Deputy

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Furniture Store No. of Rooms 5 No. of Families —

2. Owner's name Jno. G. Leavitt Phone Univ. 4560

3. Owner's address 3977 So. Vermont

4. Architect's name E. T. Parks Phone AX. 231

5. Contractor's name A. K. PERKINSON Phone Univ. 4650

6. Contractor's address 3977 So. Vermont Ave

7. TOTAL VALUATION OF BUILDING {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 2100.00

8. Any other building or permit for a building on lot at present? No How used? —

9. Size of proposed building 100 x 168 Size of lot 100 x 168 feet

10. Number of stories in height ONE Height to highest point 23'6"

11. Material of foundation Conc. Character of soil Sand

12. Material of exterior walls Brick

13. Material of interior construction Wood

14. Material of floors Concrete & Wood

15. Material of roof Comp.

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree, if a permit is issued, that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

OVER 8/10 12 5 (Sign here) A. K. Perkinson

(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
23496	Geo. P. Mich Plan Examiner	8/13/26 Clerk	RECEIVED AUG 13 1926 TOWLE

PLANS 1 & 2 Submitted

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT #3	O. K.

REMARKS

Bldg. Form 8

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot.....	Lot.....
.....	.....
Tract.....	Tract.....

Present location of building } 3990 So Vermont Ave (House Number and Street)

New location of building } ..... (House Number and Street)

Between what cross streets } .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building Furniture Store Families..... Rooms.....
   Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving Same Families..... Rooms.....
3. Owner (Print Name) Peoples Furniture and Storage Phone.....
4. Owner's address 3990 So Vermont Ave
5. Certificated Architect..... State License No..... Phone.....
6. Licensed Engineer..... State License No..... Phone.....
7. Contractor..... State License No..... Phone.....
8. Contractor's address.....
9. VALUATION OF PROPOSED WORK {Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and/or elevator equipment therein or thereon.} $ 500.00
10. State how many buildings NOW on lot and give use of each. } .....
    Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building.....x.....Number of stories high 1 .....Height to highest point.....
12. Class of building C .....Material of existing walls Brick .....Exterior framework.....
    Wood or Steel

Describe briefly and fully all proposed construction and work:

Sign on face of bldg - 145' from 10'-8" to 8' 10'-8" from ground to top of sign + 20" above parapet on flat roof bldg.
B/L - Aug 16 - 1934

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO. 11908	FOR DEPARTMENT USE ONLY		Fee 3.00
	Plans and Specifications checked	Zone C3 / Fire District No. 3	Stamp here when Permit is issued
	Corrections verified	Bldg. Line Wire Ft. / Street Widening Wire Ft.	
	Plans, Specifications and Applications rechecked and approved	Application checked and approved Dec 9/4-34 Clerk.	SEP 14 1934
PLANS Rec'd	For Plans See / Filed with	SPRINKLER Required / Specified / Valuation Included Yes / No	Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here Leopoldine K Stage

(Owner or Authorized Agent)

By A Peeler

FOR DEPARTMENT USE ONLY

Application APP	Fire District [illegible]	Bldg. Line	Termite Inspection
Construction	Zoning	Street Widening	Forced Draft Ventil

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

Bldg. Form 3

USE INK OR INDELIBLE PENCIL

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

REMOVED FROM	REMOVED TO
Lot	Lot .....
..... 3996	.....
Tract 3996	Tract .....

Present location of building } 3268 So. Vermont
(House Number and Street)

New location of building } .....
(House Number and Street)

Between what cross streets } .....

Approved by City Engineer.

.....
Deputy.

1. Purpose of PRESENT building ... Furniture Store ... Families ..... Rooms .....
Store, Residence, Apartment House, or any other purpose.
2. Use of building AFTER alteration or moving ..... Families ..... Rooms .....
3. Owner (Print Name) ... Thompson ... Phone .....
4. Owner's address ... 48th & Western ...
5. Certificated Architect ..... State License No. ..... Phone .....
6. Licensed Engineer ..... State License No. ..... Phone .....
7. Contractor ... A. E. Anderson ... State License No. ..... Phone .....
8. Contractor's address ... AWNINGS A.E.F. SHADES
4802 SO. WESTERN AVE. • VE. 0016
9. VALUATION OF PROPOSED WORK {Including all Material, Labor, Finishing, Equipment and Appliances in Completed Building.} $ 45.00
10. State how many buildings NOW on lot and give use of each. } .....
Residence, Hotel, Apartment House, or any other purpose.
11. Size of existing building ..... x ..... Number of stories high ..... Height to highest point .....
12. Class of building ... D ... Material of existing walls ..... Exterior framework .....
Wood or Steel

Describe briefly and fully all proposed construction and work:

3 Movable Awnings

Fill in Application on other Side and Sign Statement (OVER)

PERMIT NO.	FOR DEPARTMENT USE ONLY			Fee .....
91089	Plans and Specifications checked	Zone	Fire District No.	Stamp here when Permit is issued JUL 17 1934
	Corrections verified	Set Back Ft.	Street Widening Ft.	
	Plans, Specifications and Applications rechecked and approved	Application checked and approved 7/16/34 Clerk.		
PLANS Rec'd	For Plans See	Filed with	SPRINKLER Required Valuation Included / Specified Yes—No	Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition.....x.....Size of Lot.....x.....Number of Stories when complete.....

Material of Foundation.....Width of Footing.....Depth of footing below ground.....

Width Foundation Wall.....Size of Redwood Sill.....x.....Material Exterior Walls.....

Size of Exterior Studs.....x.....Size of Interior Bearing Studs.....x.....

Joists: First Floor.....x.....Second Floor.....x.....Rafters.....x.....Roofing Material.....

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will conform to all of the provisions of the Building Ordinances and State laws.

Sign Here.....
(Owner or Authorized Agent)

By.....

FOR DEPARTMENT USE ONLY

Application.....	Fire District.....	Set back.....	Termite Inspection .....
Construction.....	Zoning	Street Widening.....	Forced Draft Ventil.....

(1)
REINFORCED CONCRETE

Barrels of Cement.....

Tons of Reinforcing Steel.....

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from

.....Street

Sign Here.....
(Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here .....
Owner or Authorized Agent.

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here .....
(Owner or Authorized Agent)

REMARKS: .....

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

Los Angeles, Calif., 7-19, 193 4

MR. J. J. BACKUS,
Superintendent of Building,
Los Angeles, Calif.

Dear Sir:

I hereby respectfully request the change of address on

Building)
Electrical)
Heating and Ventilating) Permit No. 9858 Issued 7/17/34
Plumbing)

From 3968 So Vermont ave

To 3996 So Vermont ave

for the following reasons:

( ) Change on same street, if not from east to west, or north to south, or vice versa.

( ) Change from one street to another street for corner lot.

( ) Change because of error on part of some city department.

( ) Change where charge is made for extra inspection trip of not less than 75 cents.

NOTE: Above conditions for change of address shall not be deemed to waive any inspection fees required by ordinance; nor to require the Building and Safety Department to change any address except in justifiable cases.

Respectfully,

.....
Owner, Contractor or Authorized Agent.

Address.....

Checked by Reece

.....
Clerk.

Approved by E. A. Dieckmann

.....
Chief Clerk. CP

3 APPLICATION FOR INSPECTION

CITY OF LOS ANGELES DEPT. OF BUILDING AND SAFETY

3 4 2 Bordeaux Street District 2 9

TO ADD-ALTER-REPAIR-DEMOLISH AND FOR CERTIFICATE OF OCCUPANCY

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only.

1. LEGAL DESCR. LOT	125 & 127	BLOCK	—	TRACT	Soothern Arg Park
COUNTY REF. NO.	MR 4-352				

DIST. MAP 114-197 | CENSUS TRACT 2312.00 | ZONE C2-1 | FIRE DIST. two | COUN. DIST. 8 | LOT TYPE interior | LOT SIZE 100'x 168.72 | ALLEY 20' rear | BLDG. LINE

2. PRESENT USE OF BUILDING (16 retail/pharmacy) — NEW USE OF BUILDING (4) Demo

3. JOB ADDRESS 3990 Vermont Ave

4. BETWEEN CROSS STREETS Martin Luther King Bl AND Adams

5. OWNER'S NAME L. A. Coliseum Commission — PHONE (213) 748-6136

6. OWNER'S ADDRESS 2311 So. Figueroa St. — CITY Los Angeles — ZIP 90037

7. ENGINEER — BUS. LIC. NO. — ACTIVE STATE LIC. NO. — PHONE

8. ARCHITECT OR DESIGNER — BUS. LIC. NO. — ACTIVE STATE LIC. NO. — PHONE

9. ARCHITECT OR ENGINEER'S ADDRESS — CITY — ZIP

AFFIDAVITS: ZI 1193 48 CRA ZI 1231 48 ZI 1343 48

10. CONTRACTOR American Demolition Inc. — BUS. LIC. NO. 413013 — ACTIVE STATE LIC. NO. (714) 547-6581

11. SIZE OF EXISTING BLDG. WIDTH 100' LENGTH 150' — STORIES 1 — HEIGHT 16' — NO. OF EXISTING BUILDINGS ON LOT AND USE one commercial

12. FRAMING MATERIAL OF EXISTING BLDG. — EXT. WALLS urm — ROOF wood frame — FLOOR concrete — STREET GUIDE

3 13. JOB ADDRESS 3990 So. Vermont Ave

14. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING $ 60,000 00

DIST. OFF. LA | P.C. REQ'D no | GRADING | SEISMIC | HWY. DED. yes | FLOOD | FILE WITH | ZONED BY | TYPIST cd | INSPECTOR

15. NEW WORK (Describe) Demolish — HANDWRECK S.C. # W8165

NEW USE OF BUILDING	SIZE OF ADDITION	STORIES	HEIGHT
Demolish	—		

TYPE	GROUP OCC.	FLOOR AREA	PLANS CHECKED	APPLICATION APPROVED
		15,000	Scott Ayers	S. Ortiz

DWELL UNITS	MAX OCC.	TOTAL

GUEST ROOMS	PARKING REQ'D	PARKING PROVIDED STD.	PARKING PROVIDED COMP.

INSPECTION ACTIVITY: CS | GEN. | MAJ. S. | EQ.

P.C. 260.10	G.P.I. —	CONT. INSP.	
S.P.C. —	P.M. 6.12		
B.P. 306.00	E. 9.00	Claims for refund of fees paid on permits must be filed: 1. Within one year from date of payment of fee, or 2. Within one year from date of expiration of extension for building or grading permits granted by the Dept. of B. & S. SECTIONS 22.12 & 22.13 LAMC.	
I.F. —	F.H. 132.00		
S.D. N/A	S.O.S. 14.26		
ISSUING OFFICE Shatto II	S.O.S.S. —	SPRINKLERS REQ'D SPEC.	
P.C. NO. E 5015	C/O	ENERGY	DAS

Unless a shorter period of time has been established by an official action, plan check approval expires one year after the fee is paid and this permit expires two years after the fee is paid or 180 days after the fee is paid if construction is not commenced.

727.48

B & S B-3 (R.9/88)

CASHIER'S USE ONLY

260.10 B=PC
306.00 BP=E
9.00 E1=C
132.00 FIRE
14.26 OSS
141.00 E1
W8165 3 06/16/89 727.40 CHTD

HO-141

DECLARATIONS AND CERTIFICATIONS

LICENSED CONTRACTORS DECLARATION

16. I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Date 6/13/89 Lic. Class C-21 Lic. Number 413013 Contractor Steve m° 1. (Signature)

OWNER-BUILDER DECLARATION

17. I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

☐ I am exempt under Sec. _____ B. & P. C. for this reason _____

Date _____ Owner's Signature _____

WORKERS' COMPENSATION DECLARATION

18. I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).

Policy No. BWC 6B6800 Insurance Company Highlands

☐ Certified copy is hereby furnished.

☒ Certified copy is filed with the Los Angeles City Dept. of Bldg. & Safety.

Date 6-13-89 Applicant's Signature Steve m° 1.

Applicant's Mailing Address 620 Poinsettia, Santa Ana, Ca 92701

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

19. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date _____ Applicant's Signature _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

20. I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____ Lender's Address _____

21. I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I realize that this permit is an application for inspection, that it does not approve or authorize the work specified herein, that it does not authorize or permit any violation or failure to comply with any applicable law, that neither the city of Los Angeles nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein or the condition of the property or soil upon which such work is performed. (See Sec. 91.0202 LAMC)

Signed Steve m° 1. (CONTR) Estimator 6/13/89

(Owner or agent having property owner's consent) Position Date

2 4 2 0 0 4 0 0 4 3 0

Bureau of Engineering			ADDRESS APPROVED	
			DRIVEWAY	
			HIGHWAY DEDICATION	REQUIRED COMPLETED
			FLOOD CLEARANCE	
SEWERS RES. NO. CERT. NO.			SEWERS AVAILABLE	
			NOT AVAILABLE	
			SFC PAID	
	SFC NOT APPLICABLE		SFC DUE	
Grading	PRIVATE SEWAGE SYSTEM APPROVED			
Comm. Safety	APPROVED FOR ISSUE ☐ NO FILE ☐ FILE CLOSED ☐			
Fire	APPROVED (TITLE 19) (L.A.M.C.-5700)			
Housing	HOUSING AUTHORITY APPROVAL			
Planning	APPROVED UNDER CASE #			
Transportation	APPROVED FOR			
Construction Tax	RECEIPT NO.	DWELLING UNITS		

PROTECTION FENCE & CANOPY STREET USE # ME 6481

LEGAL DESCRIPTION BLDG HEIGHT : 1 STORY - 22' HIGH

NO PARKING PROVIDED, NO LOADING SPACE PROVIDED

FLOOR AREA — 15,000 S.F.

B/SEERA Cleared for permit issuance. Agency finding of CRA on file of permit issuance. 6/16/89 C Kurtzke

ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND USE OF EACH

OK TO ISSUE DEMO PERMIT
ON THIS DATE ONLY 6-16-89
BY: [signature]
LOG # 2236

* COORDINATING DN. SIGN-OFF BY PHONE CONVERSATION W/ CHARLES CANNING ON 6-15-89. LOG # 2233

THE COMMUNITY REDEVELOPMENT AGENCY
OF THE CITY OF LOS ANGELES, CALIFORNIA

THESE PLANS ARE APPROVED AS BEING IN COMPLIANCE WITH APPLICABLE REDEVELOPMENT PLANS.

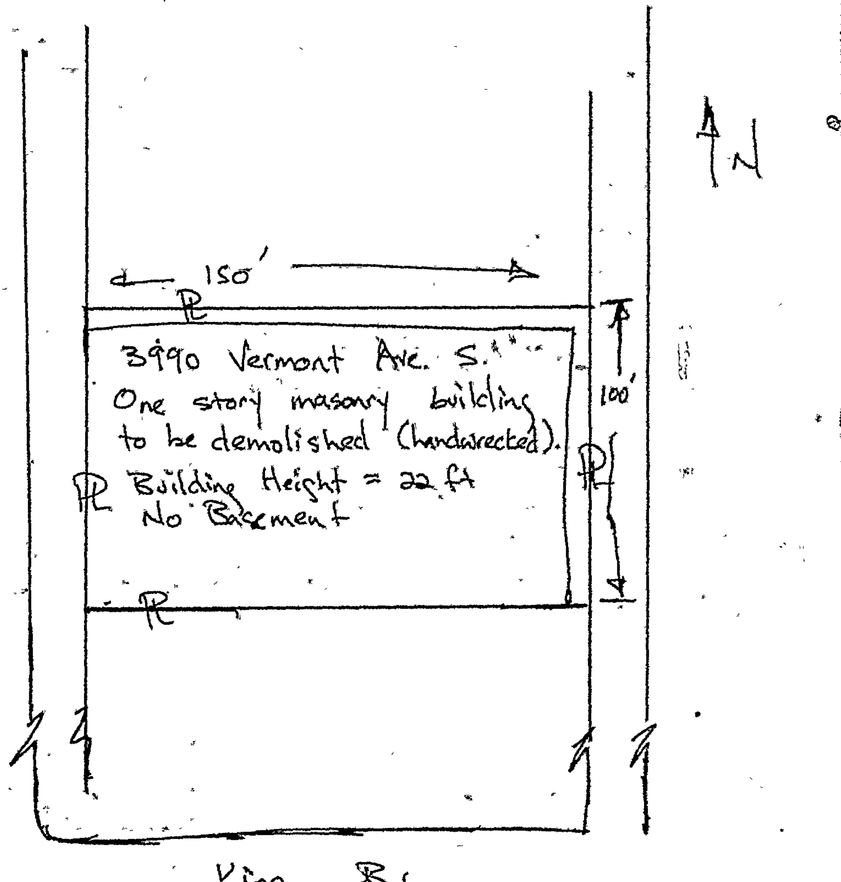
PROJECT Hoover ..... PARCEL 5037-027-006

BY [signature] .....

TITLE Assoc. Planner ..... DATE 6/13/89

CEQA CLEARED

ATTACHED PLOT PLANS SHALL NOT EXTEND ABOVE THIS LINE



Address of Building 3990 S. Vermont Ave.

CITY OF LOS ANGELES

CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

This certifies that, so far as ascertained by or made known to the undersigned, the building at the above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses, Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Law — for following occupancies.

Issued 2-10-84 Permit No. and Year LA 79957/84 & LA 78486/83

1 story, type IIIA, 100'x168', retail store and pharmacy, packaged food only. G1/G2 Occupancy. No change in parking. Affidavits ZI 1193 CRA.

0 2 5 0 1 1 0 0 2 3 3

Owner Ed Borquez

Owner's Address 15903 Septo St.
Sepulveda, CA 91343

Form B-95b

BY W. McCLIVE/df

7

Application for Permit To Erect or Alter Electric Signs

To be made in duplicate

[If filed in a Branch Office, to be made in quadruplicate]

Form B-7

CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY

Location of Building 3990 So. Vermont Ave. Los Angeles
(House Number and Street)

Between what cross streets Santa Barbara & Leighton Ave

USE INK OR INDELIBLE PENCIL

1. Purpose of building Store
(Store, Dwelling, Apartment House, Hotel or other purpose)
2. Owner Peoples Outfitting Co. L.S. Seeberg (D.B.A.) Phone RE 5101
(Print Name)
3. Owner's address 3990 So. Vermont P. O. Los Angeles
4. Certificated Architect or Registered Engineer ..... State Certificate No. ..... Phone .....
5. Contractor 20th CENTURY LITES, INC. State License No. 831647 Phone PR 3161
6. Contractor's address 3201 S. Crenshaw
7. VALUATION OF PROPOSED WORK { Including all labor and material and all electrical wiring and equipment therein or thereon. } $ 350.00
8. Size of building ..... x ..... No. Stories 2 Material Exterior Walls Masonry
9. Type: ☒ Projecting ☐ Wall ☐ Roof
10. ☒ New ☐ Alteration
11. Weight 300 lbs. Square Feet of Area Approx. 50
12. Materials of Sign Construction 24 Guage Galv. Metal
13. Height of Lower Edge above Grade 10'-6"
14. Height of Upper Edge above Grade 29'-6"
15. Distance of Outer Edge from Building Bottom 26" Top 4'-6"
16. Height of Roof Sign above Roof or Parapet .....

ELECTRICAL FEES

For issuing permit $ 1.00

17. Number of Signs One. 1.25
18. Number of Lamp Holders .....
19. Number of Transformers 3 1.75
20. Number of Flashers .....
21. ☐ Shop Inspection .....

I hereby certify that to the best of my knowledge and belief the above application is correct and that this work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

The undersigned affirms and agrees that all fluorescent or other gaseous tube equipment installed and connected to facilities authorized by this permit will comply in all respects with the rules and requirements of the Department of Water and Power relating to power factor and other regulations governing service to such equipment.

(Sign here) 20th CENTURY LITES, INC. By .....
Registered Electrical Contractor. Supervising Electrician.

DISTRICT OFFICE

FOR DEPARTMENT USE ONLY

PLAN CHECKING
Valuation $ ~~X~~
Fee $ ~~X~~

ELECTRIC SIGN

Investigation Fee $ —
Electrical Permit Fee $ 3.00
Building Permit Fee $ 3.45
Total $ 6.45

Zone	Fire District	Bldg. Line	Street Widening	District	
C-2	No. 2	Ft.	Ft.	Map No. 4279	Clerk

Plans and Specifications checked	Plans, Specifications and Application rechecked and approved.	Application checked and approved	Inspector
~~X~~		SEP 5 1952 Clerk	

Corrections Verified	For Plans See	Filed with
~~X~~	~~X~~	~~X~~

DO NOT WRITE BELOW THIS LINE

TYPE OF RECEIPT	DATE ISSUED	TRACER NO. (M)	RECEIPT NO.	CODE	FEE PAID
Plan Checking					
Electrical Permit	SEP -5 '52		LA [illegible]		✓
Building Permit	SEP -5 '52		LA 38496		

5'

"PEOPLES OUT FITTING CO.

FURNITURE

Sign Projects 4'-8" above parapet wall

2"x2"x1/4" L's — Appx 36"

Back

Rafters 2x8's 16" centers

1/2" Thru bolts

4" channel 5.4 lbs/ft Lag Shields

1/2" Thru bolts

2"x2"x1/4" L

2-1/2"x4" Lags + Shields

26"

2"x2"x1/4" L

Approx. 50 SQ. FT.
Wt. 300 lb.
3-Transf. 2-15000V
1-12000V

19'

Top View

L corner projection

14" Structural Brick Walls

Reinforced corners

36"

34"

4'-6" proj.

10'-6" To grade

2"x2"x1/4" L Brace 2-1/2" Thru bolts anchor at Bldg.

Top of parapet

4" U 5.4 lbs/ft

3/4" Pipe Stiffeners

2"x2"x1/4" L

2-1/2"x4" Lags + Shields

2"x2"x1/4" L 2-1/2"x4" Lags + Shields

2-3/4" Pipe Stiffeners

ALL CONNECTIONS NOT SHOWN ARE 1/2" ø BOLTS OR LAGGED

3 APPLICATION FOR INSPECTION

CITY OF LOS ANGELES DEPT. OF BUILDING AND SAFETY

J 6 2 0 0 4 0 0 2 0 2

TO ADD-ALTER-REPAIR-DEMOLISH AND FOR CERTIFICATE OF OCCUPANCY

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only.

1. LEGAL DESCR.	LOT 127	BLOCK	TRACT Dist. of Agriculture Park/Adjoining	COUNCIL DISTRICT NO. 8	DIST. MAP 4279
2. PRESENT USE OF BUILDING	(16 Retail Store	NEW USE OF BUILDING	(17 Restaurant/Same.		CENSUS TRACT 2312
3. JOB ADDRESS	3992 Vermont Ave.				ZONE C2-1
4. BETWEEN CROSS STREETS	Browning	AND	MartinLuther King Jr		FIRE DIST. Two
5. OWNER'S NAME	Edward Borque?		PHONE		LOT TYPE Int
6. OWNER'S ADDRESS	3990 Vermont Ave.	CITY	ZIP		LOT SIZE TRR
7. ENGINEER		BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	ALLEY 20'rear
8. ARCHITECT OR DESIGNER		BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	BLDG. LINE -
9. ARCHITECT OR ENGINEER'S ADDRESS		CITY	ZIP		AFFIDAVITS ZI 1193 ZI 1231
10. CONTRACTOR	Owner	BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	

11. SIZE OF EXISTING BLDG. WIDTH / LENGTH	STORIES 2	HEIGHT 20	NO. OF EXISTING BUILDINGS ON LOT AND USE		
12. CONST. MATERIAL OF EXISTING BLDG.	EXT. WALLS conc	ROOF wood	FLOOR conc		
13. JOB ADDRESS	3992 Vermont Ave.		STREET GUIDE		DISTRICT OFFICE LA
14. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING		20,000			SEISMIC STUDY ZONE -
15. NEW WORK (Describe)	interior alter change use to food establishment				GRADING - / FLOOD -
					HWY. DED. Yes / CONS. -
NEW USE OF BUILDING	(17) Restaurant	SIZE OF ADDITION N/A	STORIES	HEIGHT	ZONED BY Massabki
TYPE III-B	GROUP OCC. G-2	FLOOR AREA N/C	PLANS CHECKED Bob Fallek		FILE WITH
DWELL UNITS	MAX OCC. N/C	TOTAL 48	APPLICATION APPROVED Bob Alleyn		TYPIST RG
GUEST ROOMS	PARKING REQ'D N/C	PARKING PROVIDED STD. / COMP.	INSPECTION ACTIVITY COMB / GEN. / MAJ. S. / CONS.		INSPECTOR

P.C. 107.95	G.P.I.	CONT. INSP.	
S.P.C.	P.I.		
B.P. 127.00	E.I. 1.40	Claims for refund of fees paid on permits must be filed: 1. Within one year from date of payment of fee; or 2. Within one year from date of expiration of extension for building or grading permits granted by the Dept. of B. & S. SECTIONS 22.12 & 22.13 LAMC.	
I.F.	O.S.S. 4.73		
O/S	S.O.S.S.		
DIST. OFFICE LA	C/O	SPRINKLERS REQ'D SPEC.	
P.C. NO.		ENERGY NO	

PLAN CHECK EXPIRES ONE YEAR AFTER FEE IS PAID. PERMIT EXPIRES TWO YEARS AFTER FEE IS PAID OR 180 DAYS AFTER FEE IS PAID IF CONSTRUCTION IS NOT COMMENCED.

CASHIER'S USE ONLY

C	107.95	B-PC	B & S B-3 (R 1.83)
C	127.00	BP-R	
C	1.40	E.I.	
C	4.73	OSS	
	92533	DOBI	
C2083	4 07/20/84	241:08	CHTD

DECLARATIONS AND CERTIFICATIONS

LICENSED CONTRACTORS DECLARATION

16. I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Date _____ Lic. Class _____ Lic. Number _____ Contractor _____ (Signature)

OWNER-BUILDER DECLARATION

17. I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

☐ I am exempt under Sec. _____ B. & P. C. for this reason _____

Date 7/20/84 Owner's Signature X Edward Borque

WORKERS' COMPENSATION DECLARATION

18. I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).

Policy No. _____ Insurance Company _____

☐ Certified copy is hereby furnished.

☐ Certified copy is filed with the Los Angeles City Dept. of Bldg. & Safety.

Date _____ Applicant's Signature _____

Applicant's Mailing Address _____

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

19. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date 7/20/84 Applicant's Signature X Edward Borque

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

20. I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____ Lender's Address _____

21. I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I realize that this permit is an application for inspection, that it does not approve or authorize the work specified herein, that it does not authorize or permit any violation or failure to comply with any applicable law, that neither the city of Los Angeles nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein or the condition of the property or soil upon which such work is performed. (See Sec. 91.0202 LAMC)

Signed X Edward Borque (Owner or agent having property owner's consent) Owner Position 7/20/84 Date

Fudge 87 3-84

J 6 2 0 J 4 0 0 2 0 3

X-4731-3

X Owner 7-5-84

X C-845107777/25-84

COMMUNITY REDEVELOPMENT AGENCY
OF THE CITY OF LOS ANGELES, CALIFORNIA

THESE PLANS ARE APPROVED AS BEING IN COMPLIANCE WITH APPLICABLE REDEVELOPMENT PLANS

PROJECT Hoover Redevelop Project PARCEL 3492-5 Vermont Ave

BY Elizabeth Taggie

TITLE City Planning Assoc DATE 7/20/84

ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND USE OF EACH

We the undersigned are aware that the repairs authorized by this permit will not make this building comply with current construction requirement for earthquake resistant design as specified in Los Angeles Building Code.

Edward Borges
owner

7/16/84
Date

tenant

7-16-84
Date

No Change in P.O.T. Plan

O.K. to issue
BLDG PERMIT WITH
ABOVE STATEMENT &
NO CHANGE TO B-2
OCCUPANCY.

7/17/84

E.Q. Olivia

ATTACHED PLOT PLAN SHALL NOT EXTEND OVER THIS LINE

All Applications must be filled out by Applicant

Bldg. Form 2

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2 Application for the Erection of Frame Buildings

CLASS "D" Brick

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR

CITY CLERK PLEASE VERIFY

Lot No. 9 & 10 Block

(Description of Property) Tract 2411 - Book 26 Page 77 & 78

District No. 15 M. B. Page 16 F. B. Page

O. K. City Clerk By Deputy

TAKE TO ROOM No. 405 SOUTH ANNEX

ENGINEER PLEASE VERIFY

No. 925 To 937 incl W. Santa Barbara Ave Street

(Location of Job) 3994 To 3998 1/2 S. Vermont Ave

O.K. City Engineer By Deputy.

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Store Building & offices No. of Rooms 22 No. of Families
2. Owner's name Gustav Dwight Phone 56648
3. Owner's address 3981 W. 6th St.
4. Architect's name same Phone
5. Contractor's name same Phone
6. Contractor's address same
7. VALUATION OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, all Labor, etc.} $ 27000.00
8. Is there any existing (old) building on lot? No How used?
9. Size of proposed building 134 x 60 Height to highest point 28 feet
10. Number of Stories in height 2 Character of ground clay
11. Material of foundation concrete Size of footings 24" Size of wall 16" Depth below ground 24"
12. Material of chimneys Brick Number of inlets to flue 1 Interior size of flues 16" x 16"
13. Give sizes of following materials: REDWOOD MUDSILLS x Girders x
    EXTERIOR studs 2 x 6 INTERIOR BEARING studs 2 x 4 Interior Non-Bearing studs 2 x 3 Ceiling joists 2 x 4 Roof rafters 2 x 6 FIRST FLOOR JOISTS ~~2 x 12~~
    Second floor joists 2 x 12 Specify material of roof Tile & Composition
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER 7/27/22 2.30 $

(Sign here) Gustav Dwight
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued.
26168	Plan Examiner	8/3/22 Clerk	RECEIVED AUG 3 1922 L.A. Bldg. Dept.

PLANS

Address of Building 3996 Vermont

CITY OF LOS ANGELES
CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

This certifies that, so far as ascertained by or made known to the undersigned, the building at the above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses, Ch. 9, Arts 1, 3, 4, and 5; and with applicable requirements of State Housing Law — for following occupancies.

Issued 1-10-83 Permit No. and Year LA 47130/82

1 story, type IV, 45'x83', service station canopy/cashier booth/gas island. Fl Occupancy. 7 required parking spaces provided. Lot Tie D/N 82-74200; reg. comp. Fill 1500,.

0 1 9 0 0 6 0 0 0 1 1

Owner Al Sal Oil Co.

Owner's Address 5121 Sunset Blvd.
Los Angeles, CA 90027

Form B-95b

BY W. McCLIVE/kc

PUBLIC RECORD
APPLICATION FOR INSPECTION OF NEW BUILDING AND FOR CERTIFICATE OF OCCUPANCY

6-4 2.6

B & S B-1—R 1.81

CITY OF LOS ANGELES 0 [redacted] DEPT. OF BUILDING AND SAFETY

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.

1. LEGAL DESCR.	LOT Frac. 9 & 10	BLOCK 2411	TRACT	COUNCIL DISTRICT NO. 8	DIST. MAP 4279 / CENSUS TRACT 2312.00
2. PURPOSE OF BUILDING	(9) Service Station Canopy/Cashier's Booth (Gas Island Open)				ZONE C2-1
3. JOB ADDRESS	3996 Vermont				FIRE DIST. Two
4. BETWEEN CROSS STREETS	Santa Barbara	AND	Browning Blvd.		LOT TYPE Cor
5. OWNER'S NAME	Al-Sal Oil Co.		PHONE 666-4471		LOT SIZE IRR
6. OWNER'S ADDRESS	5121 Sunset	CITY LA	ZIP 90027		
7. ENGINEER	R hansen	BUS. LIC. NO. 1372	ACTIVE STATE LIC. NO.	PHONE 583-4061	ALLEY 20' rear
8. ARCHITECT OR DESIGNER	/	BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	BLDG. LINE 15' variable
9. ARCHITECT OR ENGINEER'S ADDRESS	1900 E. 64th St.	CITY LA	ZIP 90001		AFFIDAVITS Lot tie D.N. 82-74902 req. Comp Fill 1500 Zi 439
10. CONTRACTOR	Prime Oil Calif.	BUS. LIC. NO. 262413	ACTIVE STATE LIC. NO. 774-3270	PHONE	
11. SIZE OF NEW BLDG. WIDTH 45 LENGTH 83	STORIES 1	HEIGHT 14	NO. OF EXISTING BUILDINGS ON LOT AND USE None		
12. MATERIAL OF CONSTRUCTION	EXT. WALLS Metal	ROOF Metal	FLOOR Conc		
13. JOB ADDRESS 3996 Vermont			STREET GUIDE 76,002		DISTRICT OFFICE LA
14. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING	$ ~~25,000~~				SEISMIC STUDY ZONE --
					GRADING -- / FLOOD --
					HWY. DED. Yes-2 / CONS. --

1

PURPOSE OF BUILDING	Service station canopy/cashier Booth/Gas Island	STORIES 1	HEIGHT 14	ZONED BY L.T.	
TYPE IV	GROUP OCC. F-1	BLDG. AREA 3735	PLANS CHECKED H. SHAHBAZI	FILE WITH	
DWELL UNITS —	MAX. OCC. 37	TOTAL	APPLICATION APPROVED [illegible]	TYPIST RG	
GUEST ROOMS —	PARKING REQ'D. 7	PARKING PROVIDED STD. 17 COMP.	INSPECTION ACTIVITY COMB. | (GEN) | MAJ. S. | CONS.	INSPECTOR	

SPRINKLERS REQ'D. SPECIFIED	—	CONT. INSP. welding	
P.C.	127.07	P.M. 7.24	
S.P.C.	177.40	I.F. /	Claims for refund of fees paid on permits must be filed: 1. Within one year from date of payment of fee; or 2. Within one year from date of expiration of extension for building or grading permits granted by the Dept. of B. & S. SECTIONS 22.12 & 22.13 LAMC
B.P.	356.20	O.S.	
G.P.I.	/	C/O	
DIST. OFFICE	LA	ENERGY —	
P.C. NO.	Y1679		

PLAN CHECK EXPIRES ONE YEAR AFTER FEE IS PAID. PERMIT EXPIRES TWO YEARS AFTER FEE IS PAID OR 180 DAYS AFTER FEE IS PAID IF CONSTRUCTION IS NOT COMMENCED.

CASHIER'S USE ONLY

C	127.07	B-PC	
C8450	1 05/11/82	127.07	CHTD
C	7.24	PL/M	
C	177.40	B-PC	
C	356.20	BP-R	
	47130	0001	
H3861	3 07/28/82	642.84	CHTD

DECLARATIONS AND CERTIFICATIONS

LICENSED CONTRACTORS DECLARATION

15. I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Date 7/26/82 Lic. Class B-1 Lic. No. 388244 Contractor's Signature [signature]

Contractor's Mailing Address 14751 So. [illegible] GARFIELD PARAMOUNT

OWNER-BUILDER DECLARATION

16. I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

☐ I am exempt under Sec. _____, B. & P. C. for this reason _____

Date _____ Owner's Signature _____

WORKERS' COMPENSATION DECLARATION

17. I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).

Policy No. CC24050698 41 Company ARGONAUT INS. Co.

☐ Certified copy is hereby furnished.

☒ Certified copy is filed with the Los Angeles City Dept. of Bldg. & Safety.

Date 7/26/82 Applicant [signature]

Applicant's Mailing Address 14751 So. GARFIELD PARAMOUNT

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

18. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date _____ Applicant _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

19. I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

20. I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I realize that this permit is an application for inspection, that it does not approve or authorize the work specified herein, that it does not authorize or permit any violation or failure to comply with any applicable law, that neither the city of Los Angeles nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein or the condition of the property or soil upon which such work is performed. (See Sec. 91.0202 LAMC)

Signed [signature] Agt 7/26/82

(Owner or agent having property owner's consent) Position Date

Laut 5-7-82

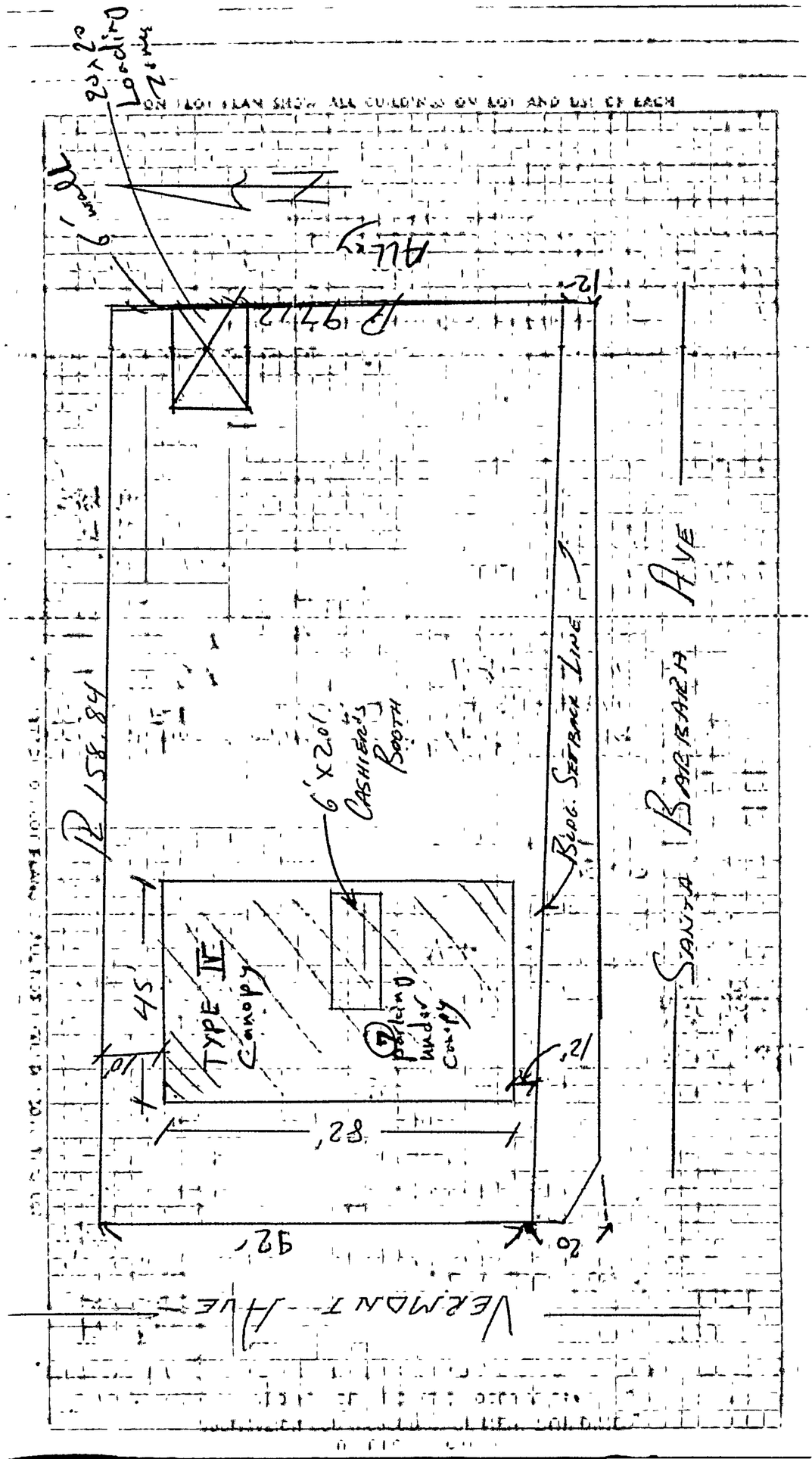
Hwy Dedn not req'd
P.E.'s as per D.M. 4279
R. Kelleher 7-26-82

SFC to be det. after
Plan Check

x Stray 5-7-82

x Stray 5-7-82

R. Marans 07/27/82



PUBLIC RECORD

APPLICATION FOR INSPECTION — TO ADD-ALTER-REPAIR-DEMOLISH AND FOR CERTIFICATE OF OCCUPANCY

CITY OF LOS ANGELES 4 8 1 2 0 5 3

B & S B-3 (R 12.80)
DEPT. OF BUILDING AND SAFETY

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only.

1. LEGAL DESCR. LOT	BLOCK	TRACT	COUNCIL DISTRICT NO.	DIST. MAP	
Frac 9 & 10		2411	8	4279	
				CENSUS TRACT	2312.00
2. PRESENT USE OF BUILDING	NEW USE OF BUILDING			ZONE	
( ) Service Station	( ) same			C2-1	
3. JOB ADDRESS				FIRE DIST.	
3996 Vermont				two	
4. BETWEEEN CROSS STREETS	AND			LOT TYPE	
~~Santa Barbara~~	~~Browning~~ Bl			cor	
5. OWNER'S NAME		PHONE		LOT SIZE	
Al-Sal Oil Co		6664471		Irr	
6. OWNER'S ADDRESS	CITY	ZIP			
5121 Sunset	LA	90027			
7. ENGINEER	BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	ALLEY	
R. Hansen		1372	5834061	20' rear	
8. ARCHITECT OR DESIGNER	BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE	BLDG. LINE	
--				15' various	
9. ARCHITECT OR ENGINEER'S ADDRESS	CITY	ZIP		AFFIDAVITS	
1900 E. 64th St	La	90001		~~Lot tie~~ req	
10. CONTRACTOR	BUS. LIC. NO.	ACTIVE STATE LIC. NO.	PHONE		
Prime of California		262413	7743270	Comp fill 1500	
11. SIZE OF EXISTING BLDG. WIDTH 45 LENGTH 83	STORIES 1	HEIGHT 14	NO. OF EXISTING BUILDINGS ON LOT AND USE ~~Auto~~ Service	ZI 439	
12. CONST. MATERIAL OF EXISTING BLDG. →	EXT. WALLS metal	ROOF metal	FLOOR conc		
13. JOB ADDRESS 3996 Vermont			STREET GUIDE	DISTRICT OFFICE LA	
14. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING	$ 201.00			SEISMIC STUDY ZONE --	
15. NEW WORK (Describe) Revise plot plan on LA 47130/82				GRADING /	FLOOD /
				HWY. DED. yes	CONS. 2 /

NEW USE OF BUILDING	SIZE OF ADDITION	STORIES	HEIGHT	ZONED BY	
same	na	1	14	Alpine	
TYPE nc	GROUP OCC.	BLDG. AREA nc	PLANS CHECKED H. SHAMAZE	FILE WITH LA47130/82	
DWELL UNITS --	MAX OCC. nc	TOTAL	APPLICATION APPROVED H. Shamaze	TYPIST ra	
GUEST ROOMS --	PARKING REQ'D nc	PARKING PROVIDED STD. COMP.	INSPECTION ACTIVITY COMB GEN. MAJ. S. CONS.	INSPECTOR	

SPRINKLERS REQ'D SPEC.	CONT. INSP.		
P.C. 6.29	P.M.		
S.P.C.	I.F.	Claims for refund of fees paid on permits must be filed: 1. Within one year from date of payment of fee; or 2. Within one year from date of expiration of extension for building or grading permits granted by the Dept. of B. & S. SECTIONS 22.12 & 22.13 LAMC.	
B.P. 7.40	O.S.		
G.P.I.	C/O		
DIST. OFFICE LA	ENERGY:		
P.C. NO.			

PLAN CHECK EXPIRES ONE YEAR AFTER FEE IS PAID. PERMIT EXPIRES TWO YEARS AFTER FEE IS PAID OR 180 DAYS AFTER FEE IS PAID IF CONSTRUCTION IS NOT COMMENCED.

CASHIER'S USE ONLY

C 6.29 B-PC
C 7.40 BP-R
48664 DQ01
H9710 T 08/24/82 13.69 CHTD

DECLARATIONS AND CERTIFICATIONS

LICENSED CONTRACTORS DECLARATION

16. I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Date 8/23/82 Lic. Class B-1 Lic. Number 262414 Contractor _____ (Signature)

OWNER-BUILDER DECLARATION

17. I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

☐ I am exempt under Sec. _____, B. & P. C. for this reason _____

Date _____ Owner's Signature _____

WORKERS' COMPENSATION DECLARATION

18. I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).

Policy No. CC24050676H4 Company Argonaut

☐ Certified copy is hereby furnished.

☑ Certified copy is filed with the Los Angeles City Dept. of Bldg. & Safety.

Date 8/23/82 Applicant _____

Applicant's Mailing Address 14751 So. Garfield Paramount

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

19. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date _____ Applicant _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

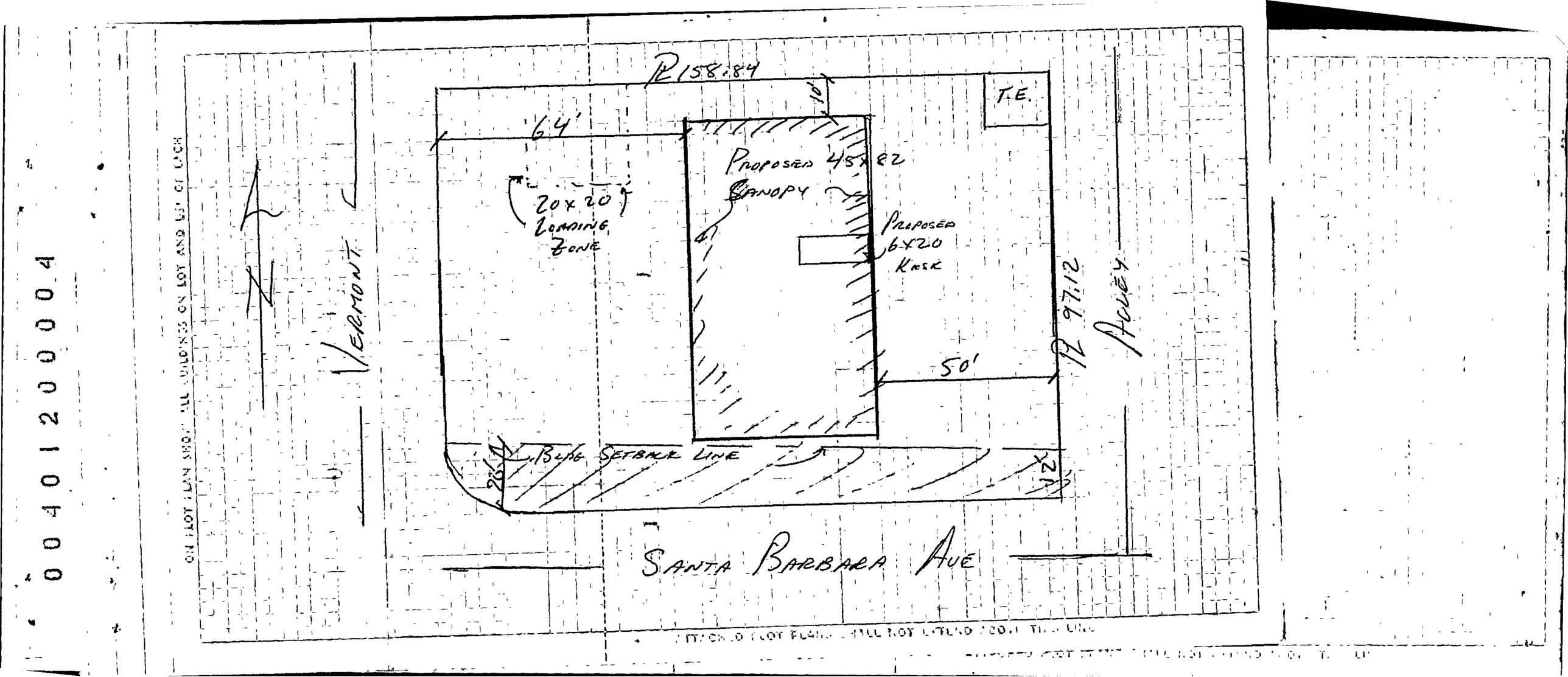
20. I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____ Lender's Address _____

21. I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

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Signed _____ Agent 8/28/82
(Owner or agent having property owner's consent) Position Date


R 158.84
10'
T.E.
64'
PROPOSED 45'x 62'
CANOPY
20 x 20
LOADING
ZONE
PROPOSED
6'x20'
KIOSK
50'
97.12
VERMONT
AVENUE
25'
L. BLDG SETBACK LINE
12'
SANTA BARBARA AVE
ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND ALL OF EACH
ATTACHED PLOT PLAN - STILL NOT LISTED / CO. TITLE LINE
0040120004

COMMISSIONERS

SCOTT Z. ADLER
PRESIDENT

JAMESINA E. HENDERSON
VICE-PRESIDENT

JEANETTE APPLEGATE

MABEL CHANG

JOYCE L. FOSTER

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
400, CITY HALL
LOS ANGELES, CA 90012-4869

WARREN V. O'BRIEN
GENERAL MANAGER

ARTHUR J. JOHNSON, JR.
EXECUTIVE OFFICER

PLOT PLAN ATTACHED TO BUILDING PERMIT

The "Plot Plan Attached" area of the permit application was checked as:

☒ **NO**

☐ **NEITHER YES NOR NO** (left blank)

for Building Permit No. 96LA 46231 issued on 1-3-96

for the address of 3996 S. Vermont AV; however, a plot plan has been attached to the permit for this address. The building permit and plot plan, respectively, follow this notice.

(WPBPPLA.JKR)

G

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
APPLICATION FOR GRADING PERMIT AND FOR GRADING CERTIFICATE

** PLEASE TYPE OR PRINT IN INK CLEARLY **

A

JOB ADDRESS	SUITE/UNIT NO.	CROSS STREETS
3996 S Vermont Av		Martin Luther King Jr

TRACT	BLOCK	LOT(S)	ARB	UNIT	ASSESSOR'S ID
2411		Frac 9 &	10		5037027-009

LOT TYPE	ZONE	ALLEY	BUILDING LINE	SEISMIC STUDY ZONE	COUNTY REF.
Corner	C2-1L	20'	varible	—	MP 26-77/79

LOT SIZE	FIRE DISTRICT	GRADING	HIGHWAY DED.	FLOOD ZONE	DIST. MAP
Irreg	II	—	yes	—	114B197

AFFIDAVITS, EASEMENTS AND RESTRICTIONS: ZI 1231, AFF 53547, CFG 1500, ZI 1193

Abandoned sewers

DIST. OFFICE: [X] METRO [ ] WILSHIRE [ ] VAN NUYS [ ] SAN PEDRO [ ] W.L.A. [ ] W. VALLEY

CENSUS TRACT: 2312.00

COUNCIL DIST.: 8

B

BLDG. OWNER	PHONE	APPLICANT	PHONE
Al-Sal Oil Co	(818) 440-0684	Amcado Services	(818) 857-7388

ADDRESS	SUITE/UNIT NO.	ADDRESS	SUITE/UNIT NO.
3410 E Foothill Bl		1135 E Alosta Av	103

CITY/STATE/ZIP	CITY/STATE/ZIP
Pasadena, CA 91107	Glendora, CA 91740-3769

CIVIL ENGINEER NAME	ADDRESS	ACTIVE STATE LIC. NO.	CITY BUS. LIC NO.	PHONE NO.
				( )

ENGR. GEOLOGIST

SOIL ENGINEER

GEN. CONTR. WAYNE PERRY CONSTRUCTION, INC. 300345 378798-32 UT
Prime Builders 8301 W. COMMONWEALTH, BUENA PARK (714) 826-0352

DESCRIPTION OF GRADING WORK: remove 5 underground storage tanks (20,00 gal. each)

EXCAVATION & BACKFILL

C

PURPOSE OF GRADING (60): tank removal 5, 20,000 gallon tanks

CUBIC YARDS CUT	FILL	EXPORT	IMPORT	MAX SLOPE CUT	FILL	EXPORT	IMPORT
500	1193 (GP) 51 (PC)	—	633	: 1	2%		

CAL. ENVIRONAMENTAL QUALITY ACT	RETAINING WALL REQ'D	HEIGHT	BOND	AMOUNT	CAS	DATE POSTED
[X] EXEMPT [ ] COMPLETE	[ ] YES [X] NO		[ ] CASH [ ] SURETY			

LIST ALL APPLICABLE REPORTS, DEPT. LETTERS AND RESPECTIVE DATES

PLAN CHECK NOTES/SUPERINTENDANT LETTER AND AFFIDAVITS

LA Fire Department permit #4522, ISSUED 12-13-95

Bureau of Engineering approval for lateral support of public way obtained on 12/4/95

D

P.C. NO.	EVENT CODE	SUPPLEMENT TO PERMIT NO.
CC		

HILLSIDE POSTING	ZONING VERIFIED BY	DATE	BOARD FILE NO.
	A. Gong	1-03-96	
PRE-INSPECTION	GRADING PRE-INSPECTION BY	DATE	PLAN CHECKED BY / DATE
OAK TREE INSP.	APPLICATION APPROVED BY		BSID
PLAN CHECK 93.50	PRINT A. GONG		94229
	SIGN A. Gong		DATE 1-03-96
SUPP. PLAN CHECK	FOR DEPT. USE ONLY		
PLAN MAINT.			
GRADING PERMIT 1210.00			
SURCHARGES YES			
SUPP. SURCHARGES			
ADDL. INSPECTION			

PLOT PLAN ATTACHED [ ] YES [X] NO

Unless a shorter period of time has been established by an official action, plan check approval expires one and a half years after the fee has been paid. This permit expires two years after the fee has been paid or 180 days after the fee has been paid and construction has not commenced; or if work is suspended, discontinued or abandoned for a continuous period of 180 days (Sec.98.0603 L.A.M.C). Claims for refund of fees paid on permits must be filed within one year from the date of expiration for building permits granted by the Department of Building and Safety (Sec. 22.12 & 22.13 L.A.M.C.).

B & S 08-B-G Rev. 1/95

FOR CASHIER'S USE ONLY

```
01/03/96 10:00:55AM LA05 T-9522 C 25
   GRADING PLAN C                93.50
   GRADING PERMIT             1,210.00
 INVOICE # 0094229 BB
   ONE STOP                      26.07
   SYS DEV                       78.21
   MISCELLANEOUS                  5.00
   CITY PLAN SURC                39.11
      TOTAL                   1,451.89
      CHECK                   1,451.89
```

96LA 46231

BUREAU OF ENGINEERING		SEWERS ☐ AVAILABLE ☐ NOT AVAILABLE SEWER RESERVATION NO. SEWER CERTIFICATE NO.	PLANNING WORKSHEET NO. APPROVED UNDER CASE NO. LANDSCAPE/XERISCAPE SITE PLAN REVIEW
ADDRESS	DRIVEWAY	SEWER FACILITIES CHARGE ☐ NOT APPLICABLE ☐ DUE ☐ PAID	FIRE DEPT. ☐ APPROVED TITLE 19 (L.A.M.C. Sec. 700 ☐ HYDRANT UNIT ☐ UNDERGROUND TANK REMOVAL PMT. #
FLOOD	CURB RAMP		
HIGHWAY DED. ☐ REQUIRED ☐ COMPLETED		GRADING DIVISION ☐ HILLSIDE NOTICE MAILED ☐ HILLSIDE NOTICE POSTED ☐ PRIVATE SEWAGE SYSTEM OK ☐ OAK TREE INSPECTION ☐ OFF-SITE GRADING CONSENT LETTER ATTACHED	DEPT. OF TRANSPORTATION ☐ DRIVEWAY LOCATION ☐ ORD. NO.
EXCAVATION ADJACENT TO PUBLIC WAY OK by Eng. Ramey S. 12-13-95			CAL OSHA
DRAINAGE TO WATERCOURSE APPROVED			AQMD:M03205FA

YARDAGE CALCUALTIONS, LEGAL DESCR , NOTES

1 3 9 6

1

EASEMENT MAINTENANCE CERTIFICATION

I hereby affirm, under penalty of perjury, that the proposed grading will not destroy or unreasonably interfere with any access or utility easement belonging to others on the subject property. In the event that such grading does destroy or unreasonably interfere with such easement, a substitute easement(s) will be provided satisfactory to the holder(s) of such easement. (Sec. 91.7002(b) L.A.M.C.)

Print X Carl Simons Sign X Carl Simons Date X 1-3-96 ☐ OWNER ☒ AUTHORIZED AGENT

2

LICENSED CONTRACTOR AND WORKERS' COMPENSATION DECLARATION

I hereby affirm, under penalty of perjury, that I am the contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect.

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier X Workman Gen. Services Policy No. X 2040079201

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Print X Carl Simons Sign X Carl Simons Date 1-3-96

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL BE SUBJECT TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF THE COMPENSATION DAMAGES AS PROVIDED FOR IN SEC. 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

3

CONSTRUCTION LENDING AGENCY

I hereby affirm, under penalty of perjury, that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civil Code).

Lender's name Lender's Address

4

ASBESTOS REMOVAL

☐ I declare that notification of Asbestos Removal is not applicable ☐ I declare that a notification letter has been sent to the AQMD or EPA Sign Date

5

OWNER-BUILDER DECLARATION

I hereby affirm, under penalty of perjury, that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business & Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chap. 9 commencing with Sec. 7000 of Div. 3 of the Business & Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit, subjects the applicant to a civil penalty of not more than five hundred dollars ($500).

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to the owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not intend to improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

☐ I am exempt under Sec. , Bus. & Prof. Code for the following reason

Print Sign Date ☐ OWNER ☐ AUTHORIZED AGENT

6

FINAL DECLARATION

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes. I realize that this permit is an application for inspection and that it does not approve or authorize the work specified herein. Also, that it does not authorize or permit any violation or failure to comply with any applicable law. Furthermore, that neither the City of Los Angeles nor any board, department officer, or employee thereof, make any warranty, nor shall be responsible for the performance or results of any work described herein, nor the condition of the property nor the soil upon which such work is performed.

Print X Carl Simons Sign X Carl Simons Date X 1-03-96 ☐ OWNER ☒ AUTHORIZED AGENT ☐ CONTRACTOR

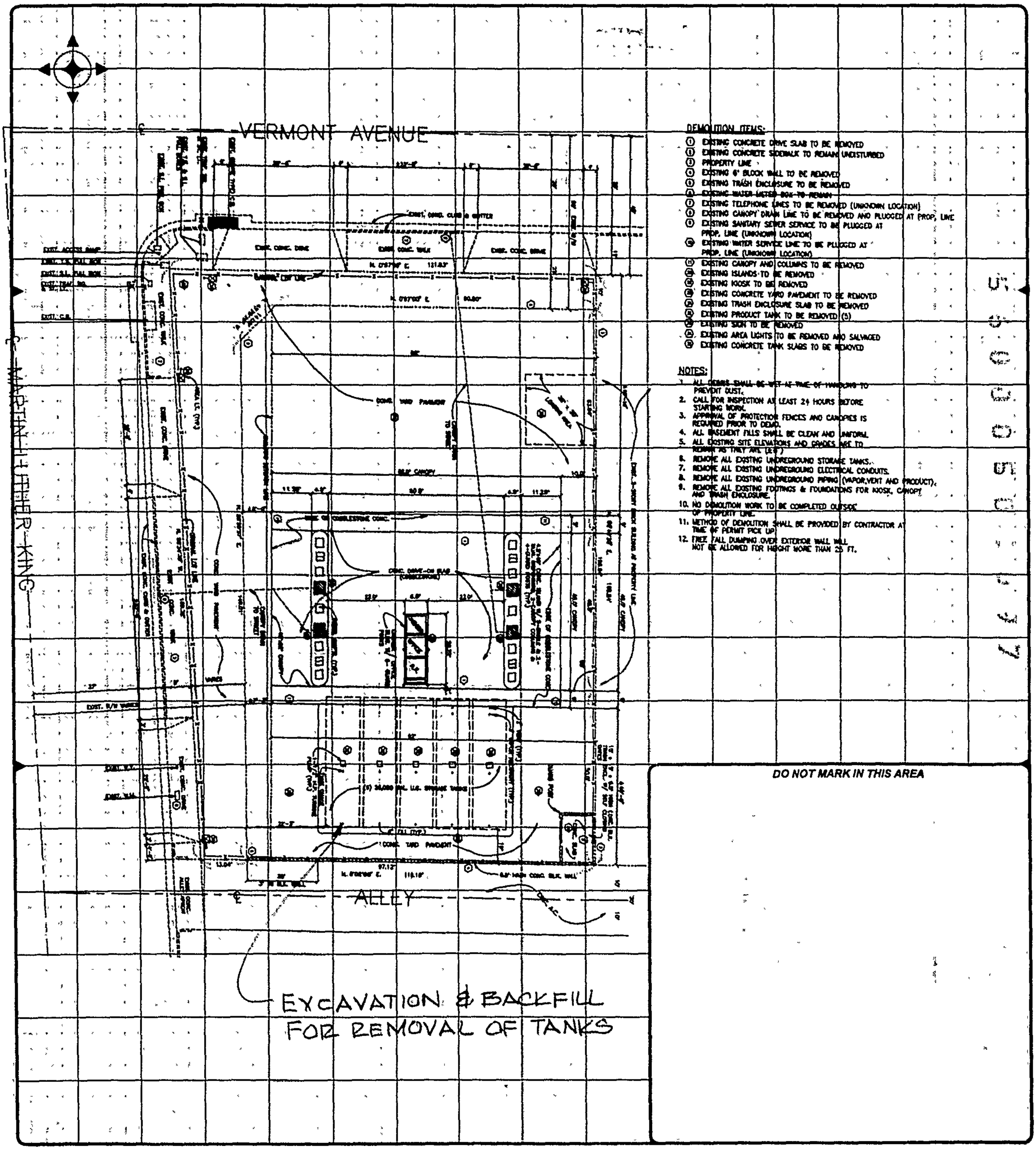
G

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
GRADING PERMIT AND GRADING CERTIFICATE - PLOT PLAN

PLEASE DRAW AND LABEL CLEARLY IN INK

JOB ADDRESS	SUITE/UNIT NO.	CROSS STREETS			
3996 S Vermont Av		Martin Luther King Jr			
TRACT	**BLOCK**	**LOT(S)**	**ARB**	**UNIT**	**ASSESSOR'S ID**
2411		Frac 9 &	10		5037027-009

SHOW ALL BUILDINGS ON LOT AND RESPECTIVE USES



DO NOT MARK IN THIS AREA

101 1425

THIS PERMIT IS FOR (Mark one)
☐ NEW BLDG./ STRUCTURE ☐ ADD, ALTER, REPAIR EXISTING BUILDING
☐ RELOCATE EXIST. BLDG. ☒ DEMOLITION OF ENTIRE BUILDING

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
APPLICATION FOR BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY

INCIDENT CODE

▼ REF. NO:

A

PROJECT ADDRESS	SUITE/UNIT NO.	CROSS STREETS
3996 S. Vermont Av.		MLK Jr./ Vermont Av

TRACT(S) and COUNTY REF. NO. (For alpha tracts) e.g. J.G. McDonald Tract (MR 70-20)	BLOCK	LOT(S) and ARB(S) e.g. 15, 16 (Arb 3), 17, 18	DIST. MAP
2411 (MP 26 77/79)	--	10 ; 9	114B197
			ASSESSOR'S ID

LOT TYPE	LOT SIZE	ZONE	BUILDING LINE	ALLEY	CENSUS TRACT	ADDR. APP'D	DATE
Corner	Irreg.	C2-1L	Var	20'(R)	2312	DM	11-27-95

AFFIDAVITS, EASEMENTS AND RESTRICTIONS	COUNCIL DIST.	FIRE DISTRICT	FLOOD ZONE
ZI 439/ AFF 53547/ CFG 1500/ ZI 1193/ ZI 1231	8		
	GRADING	HIGHWAY DED.	SEISMIC STUDY
		yes	

B

PROPERTY OWNER	PHONE	APPLICANT	PHONE
Al-Sal Oil Co		Amcad Services	818 857 7388
ADDRESS	**SUITE/UNIT NO.**	**ADDRESS**	**SUITE/UNIT NO.**
3410 C Foothill Bl.		1135 E. Alosta Av	
CITY/STATE/ZIP		**CITY/STATE/ZIP**	
Pasadena 91107-3113		Glendorch, CA 91740-	

ARCHITECT NAME ADDRESS — LIC. CLASS ACTIVE STATE LIC. NO. CITY BUS. LIC NO. PHONE NO.

ENGINEER
Amcadd Svcs, , 1135 E Alosta Glendora 91740

CONTRACTOR
L&M Loader Service 15904 Strathern GL1 504308 374191 818-7825336

PROPOSED USE OF BUILDING	EXISTING USE OF BUILDING (Leave blank for new buildings)
( ) Demo	( ) Svc StnSvc Stn

DESCRIPTION OF WORK
☐ DAMAGE REPAIR <10% ☐ PATCH PLASTER/ DRYWALL ☐ INT. NON-STRUCTURAL REMODEL ☐ DOOR/WINDOW CHANGEOUT ☐ RE-STUCCO/SIDING ☐ RE-ROOF

OTHER: (Describe)
Demo [redacted], kiosk, [redacted] Hendwreck clear lot
[redacted] SC # 0196 LA06 4159

C COMPLETE THIS SECTION ONLY FOR ONE AND TWO FAMILY DWELLINGS INVOLVING MECHANICAL WORK IN CONJUCTION WITH THE WORK DESCRIBED IN SEC. "B" ABOVE. A SEPARATE PERMIT SHALL BE OBTAINED FROM MECHANICAL BUREAU FOR ANY WORK WHICH DOES NOT MEET ANY OF THE FOLLOWING CONDITIONS
☐ ELECTRICAL WORK FOR PANEL SIZE <400 AMPS AND TOTAL FLOOR AREA <15,000 S.F. ☐ PLUMBING (NOT INCLUDING FIRE SPRINKLERS) ☐ HVAC WORK FOR HEAT/VENT SIZE < 350,000 BTU AND A.C. SIZE < 25 TONS

DESCRIPTION OF MECHANICAL WORK (Check applicable boxes above)

ELECT. CONTR. NAME ADDRESS — LIC. CLASS ACTIVE STATE LIC. NO. CITY BUS. LIC NO. PHONE NO.

PLUMB. CONTR.

HVAC CONTR.

D NO. OF EXISTING BLDGS ON LOT AND USE (2) Kiosk & Canopy

LENGTH	WIDTH	HEIGHT (BUILDING)	FLOOR AREA (BUILDING)
20'3	6'6	8'	
STORIES	GROUP OCCUPANCY	OCCUPANTS PER GROUP	MAX. OCCUPANCY
DWELLING UNITS 55.00	GUEST ROOMS	CONSTR. TYPE	LIC. FABRICATOR REQ'D FOR:
REQ'D PARKING	PARKING PROVIDED STD. COMP. D.A.	HEIGHT (ZONING)	FLOOR AREA (ZONING)
LOCATION OF REQ'D FIRE SPRINKLERS	TYPE OF INSPECTION CS EQ FS MS (GEN)	DISTRICT INSP. OFFICE (LA) VN WLA SP	

LATERAL/FDN. SYSTEMS: ☐ SHEARWALL ☐ CONTINUOUS/SPREAD ☐ EBF/CBF ☐ PILE/CAISSON ☐ SMRSF/OMRSF ☐ MAT/BASE ISOLATION ☐ OTHER ☐ OTHER

SPECIAL INSPECTIONS: ☐ CONC > 2000 PSI ☐ MASONRY ☐ FIELD WELDING ☐ REBAR WELDS ☐ GUNITE/SHOTCRETE ☐ GRADING ☐ GRADE BEAMS/CAISSONS ☐ OTHER

E

P.C. NO. G4222			VALUATION (Including all fixed operating equipment) $ 3,000.00
PLAN CHECK 42.50	SUPP. PLAN CHECK	E.Q. INSTR. 0.63	SUPPLEMENT TO PERMIT NO.
HILLSIDE POSTING	BLDG. PERMIT 50.00	PLAN MAINT.	PLAN CHECKED BY B. Kanegawa
PRE-INSPECTION	ELEC. PRMT. (26%)	FIRE HYDRANT	D.A. PLAN CHECKED BY
INVESTIGATION FEE	PLUMB. PRMT. (26%)	ARTS DEV. FEE	ZONING VERIFIED BY BK — DATE 2/13/96
RELOCATION FEE	HVAC PRMT. (13%)	SCHOOL DIST. FEE	APPLICATION APPROVED BY
		SCH. DIST. FL. AREA	PRINT B. Kanegawa BSID 98582
			SIGN [signature] DATE 2/13/96

☐ ENERGY ☒ SURCHARGES ☐ D.A. SURCH. ☐ SEWER CAP REQ'D

PLOT PLAN ATTACHED ☒ YES ☐ NO

OTHER ATTACHMENTS (Descr.) ☐ YES

Unless a shorter period of time has been established by an official action, plan check approval expires one and a half years after the fee has been paid. This permit expires two years after the fee has been paid or 180 days after the fee has been paid and construction has not commenced; or if work is suspended, discontinued or abandoned for a continuous period of 180 days (Sec.98.0603 L.A.M.C). Claims for refund of fees paid on permits must be filed within one year from the date of expiration for building permits granted by the Department of Building and Safety (Sec. 22.12 & 22.13 L.A.M.C.).

B & S 08-B-8 Rev. 2/95

11/27/95 12:20:00PM LA04 T-6350 C 30
FOR CASHIER'S USE ONLY
GRADING PRE IN 55.00
SYS DEV 3.30
ONE STOP 1.10
MISCELLANEOUS 5.00
CITY PLAN SURC 1.65
TOTAL 66.05
CHECK 66.05

02/13/96 11:10:50AM LA05 T-3012 C 30
BLDG PLAN CHEC 42.50
DEMO PERMIT 50.00
INVOICE # 0098582 BB
EI COMMERCIAL 0.63
SYS DEV 5.59
ONE STOP 1.86
MISCELLANEOUS 5.00
CITY PLAN SURC 2.78
CARRY 108.36
TO TRAN 3013

9&LA 47811

3996 S. VERMONT AVE

BUREAU OF ENGINEERING	SEWERS	PLANNING WORKSHEET NO.
OK TO ISSUE DEMO PERMIT ON THIS DATE ONLY 2/13/96 BY: Leos Log # 593	☐ AVAILABLE ☐ NOT AVAILABLE SEWER RESERVATION NO. SEWER CERTIFICATE NO.	APPROVED UNDER CASE NO. LANDSCAPE/XERISCAPE SITE PLAN REVIEW
CURB RAMP / DRIVEWAY	SEWER FACILITIES CHARGE ☐ NOT APPLICABLE ☐ DUE ☐ PAID	FIRE DEPT. ☐ APPROVED TITLE 19 (L.A.M.C. Sec. 700 ☐ HYDRANT UNIT ☐ OTHER
FLOOD / INDUSTRIAL WASTE		
HIGHWAY DEDICATION ☐ REQUIRED ☐ COMPLETED	GRADING DIVISION ☐ HILLSIDE NOTICE MAILED ☐ HILLSIDE NOTICE POSTED ☐ PRIVATE SEWAGE SYSTEM OK	DEPT. OF TRANSPORTATION ☐ DRIVEWAY LOCATION ☐ ORD. NO.
EXCAVATION ADJACENT TO PUBLIC WAY		CAL OSHA
CONSTR. TAX RECEIPT NO / DWELLING UNITS		
HOUSING AUTHORITY	CRA APPROVED RE-DEV PROJECT	AQMD ABATOST
CULTURAL AFFAIRS	C.E.Q. 2/13/96	DEPT. WATER & POWER
COMPLETE FOR RELOCATION PERMITS ONLY OLD ADDRESS ☐ FROM OUTSIDE CITY OF L.A.		CASH/SURETY BOND NO. / MILES MOVED

1

LICENSED CONTRACTOR AND WORKERS' COMPENSATION DECLARATION

GENERAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the general contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible for the following permits:

☒ Building ☐ Electrical ☐ Plumbing ☐ HVAC

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier Whatsoever Policy No.

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign Date 2-13-96

ELECTRICAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the electrical contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the electical permit:

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier Policy No.

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign Date

PLUMBING CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the plumbing contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the plumbing permit:

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier Policy No.

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign Date

HVAC CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the HVAC contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the HVAC permit:

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier Policy No.

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign Date

1.5 WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL BE SUBJECT TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF THE COMPENSATION DAMAGES AS PROVIDED FOR IN SEC. 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

2

CONSTRUCTION LENDING AGENCY

I hereby affirm, under penalty of perjury, that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civil Code).

Lender's name Lender's Address

3

ASBESTOS REMOVAL

☒ I declare that notification of Asbestos Removal is not applicable ☐ I declare that a notification letter has been sent to the AQMD or EPA Sign Date 2-13-96

4

OWNER-BUILDER DECLARATION

I hereby affirm, under penalty of perjury, that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business & Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chap. 9 commencing with Sec. 7000 of Div. 3 of the Business & Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit, subjects the applicant to a civil penalty of not more than five hundred dollars ($500):

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to the owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not intend to improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

☐ I am exempt under Sec. , Bus. & Prof. Code for the following reason

Print Sign Date ☐ OWNER ☐ AUTHORIZED AGENT

5

FINAL DECLARATION

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes. I realize that this permit is an application for inspection and that it does not approve or authorize the work specified herein. Also, that it does not authorize or permit any violation or failure to comply with any applicable law. Furthermore, that neither the City of Los Angeles nor any board, department or employee thereof, make any warranty, nor shall be responsible for the performance or results of any work described herein, nor the condition of the property nor the [illegible] upon which [illegible]

Print Carl Simons Sign Date 2-13-96 ☐ OWNER ☐ AUTHORIZED AGENT ☒ CONTRACTOR

9 4 0 0 4 0 3 2 1 6

THIS APPLICATION (Check one)
☐ NEW BLDG./ STRUCTURE ☐ ADD, ALTER, REPAIR EXISTING BUILDING
☐ RELOCATE EXIST. BLDG. ☐ DEMOLITION OF ENTIRE BUILDING

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
BUILDING PERMIT PLOT PLAN
PLEASE DRAW AND LABEL CLEARLY IN INK

INCIDENT CODE

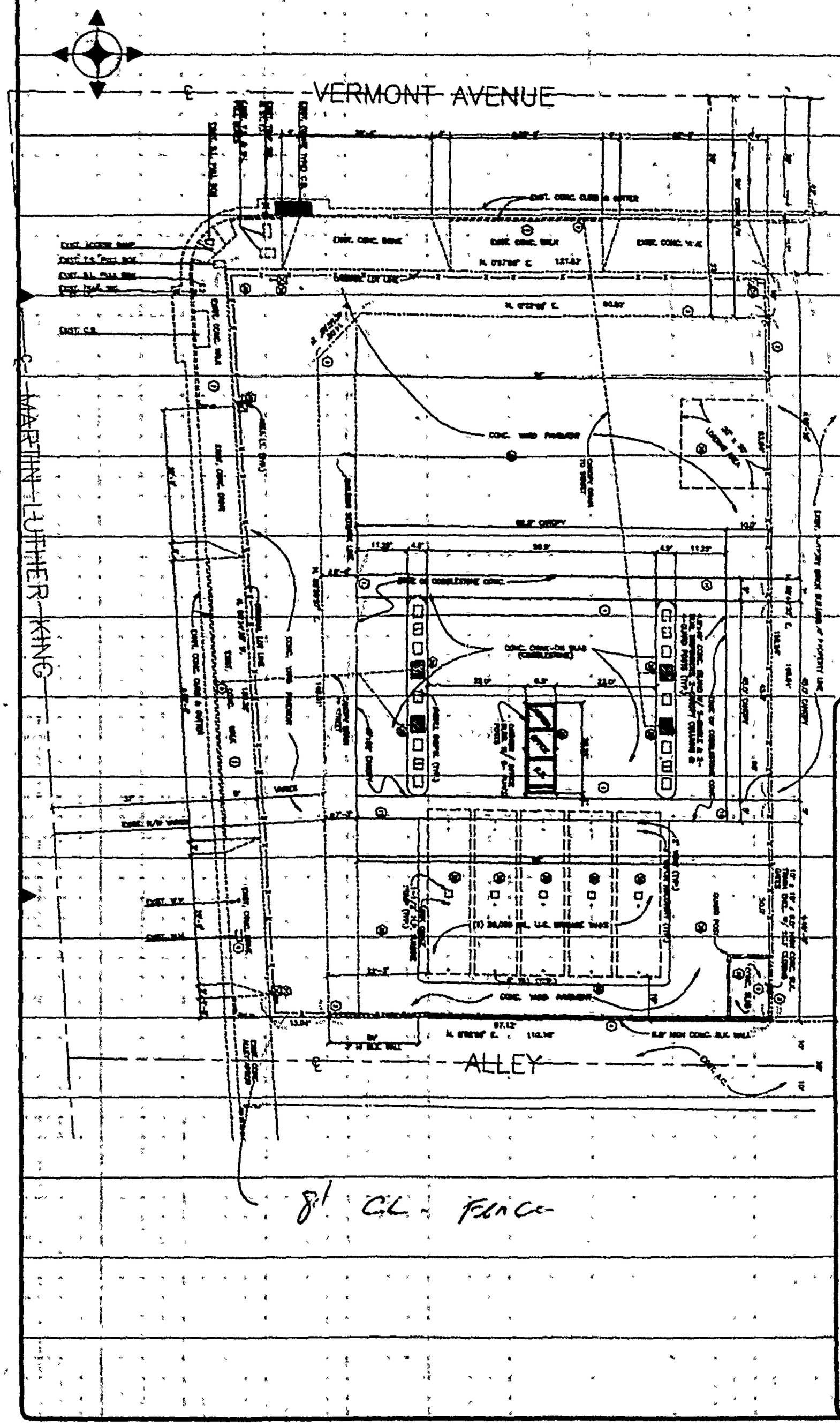
REF. NO.:

PROJECT ADDRESS	SUITE/UNIT NO.	CROSS STREETS
5956 S. Vermont Av.		Mr./ Vermont Av

TRACT(S) and COUNTY REF. NO. (For entire tract) p.b. 6/0 McDonald Tract (MR 70-20)	BLOCK	LOT(S) and ARB(S) e.g. 15, 16 (Arb 3), 17, 18	DIST. MAP
2411 (MR 28 77/79)		16 17	114B197
			ASSESSOR'S ID

Corner Irreg C2-1L Var 20'CR 2312 DM 11-27-95

SHOW ALL BUILDINGS ON LOT AND LABEL RESPECTIVE USES



DEMOLITION ITEMS:

1. EXISTING CONCRETE DRIVE SLAB TO BE REMOVED
2. EXISTING CONCRETE SIDEWALK TO REMAIN UNDISTURBED
3. PROPERTY LINE
4. EXISTING 6" BLOCK WALL TO BE REMOVED
5. EXISTING TRASH ENCLOSURE TO BE REMOVED
6. EXISTING WATER METER BOX TO REMAIN
7. EXISTING TELEPHONE LINES TO BE REMOVED (UNKNOWN LOCATION)
8. EXISTING CANOPY DRAIN LINE TO BE REMOVED AND PLUGGED AT PROP. LINE
9. EXISTING SANITARY SEWER SERVICE TO BE PLUGGED AT PROP. LINE (UNKNOWN LOCATION)
10. EXISTING WATER SERVICE LINE TO BE PLUGGED AT PROP. LINE (UNKNOWN LOCATION)
11. EXISTING CANOPY AND COLUMNS TO BE REMOVED
12. EXISTING ISLANDS TO BE REMOVED
13. EXISTING KIOSK TO BE REMOVED
14. EXISTING CONCRETE YARD PAVEMENT TO BE REMOVED
15. EXISTING TRASH ENCLOSURE SLAB TO BE REMOVED
16. EXISTING PRODUCT TANK TO BE REMOVED (5)
17. EXISTING SIGN TO BE REMOVED
18. EXISTING AREA LIGHTS TO BE REMOVED AND SALVAGED
19. EXISTING CONCRETE TANK SLABS TO BE REMOVED

NOTES:

1. ALL DEBRIS SHALL BE WET AT TIME OF HANDLING TO PREVENT DUST.
2. CALL FOR INSPECTION AT LEAST 24 HOURS BEFORE STARTING WORK.
3. APPROVAL OF PROTECTION FENCE AND CANOPIES IS REQUIRED PRIOR TO DEMO.
4. ALL BASEMENT FILLS SHALL BE CLEAN AND UNIFORM.
5. ALL EXISTING SITE ELEVATIONS AND GRADES ARE TO REMAIN AS THEY ARE (E).
6. REMOVE ALL EXISTING UNDERGROUND STORAGE TANKS.
7. REMOVE ALL EXISTING UNDERGROUND ELECTRICAL CONDUITS.
8. REMOVE ALL EXISTING UNDERGROUND PIPING (VAPOR,VENT AND PRODUCT).
9. REMOVE ALL EXISTING FOOTINGS & FOUNDATIONS FOR KIOSK, CANOPY AND TRASH ENCLOSURE.
10. NO DEMOLITION WORK TO BE COMPLETED OUTSIDE OF PROPERTY LINE.
11. LISTINGS OF DEMOLITION SHALL BE PROVIDED BY CONTRACTOR AT TIME OF PERMIT PICK UP.
12. FREE FALL DUMPING OVER EXISTING WALL WILL NOT BE ALLOWED FOR HEIGHT MORE THAN 15 FT.

DO NOT MARK IN THIS AREA

THIS PERMIT IS FOR (Mark one)
☐ NEW BLDG./ STRUCTURE ☐ ADD, ALTER, REPAIR EXISTING BUILDING
☐ RELOCATE EXIST. BLDG. ☒ DEMOLITION OF ENTIRE BUILDING

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
APPLICATION FOR BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY

INCIDENT CODE

▼ REF. NO.:

A

PROJECT ADDRESS	SUITE/UNIT NO.	CROSS STREETS
3996 S. Vermont Av.		MLK Jr. & Vermont Av.

TRACT(S) and COUNTY REF. NO. (For alpha tracts) e.g. J.G. McDonald Tract (MR 70-20)	BLOCK	LOT(S) and ARB(S) e.g. 15, 16 (Arb 3), 17, 18	DIST. MAP / ASSESSOR'S ID
2411 (MP26-77/79)	--	10 , 9	114B197

LOT TYPE	LOT SIZE	ZONE	BUILDING LINE	ALLEY	CENSUS TRACT	ADDR. APP'D	DATE
Corner	Irreg.	C2-1L	Var	20(R)	2317	DM	11-27-95

AFFIDAVITS, EASEMENTS AND RESTRICTIONS: ZI 439, AFF 53549/ CFG 1500/ ZI 1193 ZI 1231

COUNCIL DIST.	FIRE DISTRICT	FLOOD ZONE
8		
GRADING	**HIGHWAY DED.**	**SEISMIC STUDY**
	yes	

B

PROPERTY OWNER	PHONE	APPLICANT	PHONE
Al-Sal Oil Co		Am-Cadd Svc	818 857 7388
ADDRESS	**SUITE/UNIT NO**	**ADDRESS**	**SUITE/UNIT NO.**
3410 C Foothill Bl		1135 E. Alosta #103	
CITY/STATE/ZIP		**CITY/STATE/ZIP**	
Pasadena, CA 91107		Glendorch 91740	

ARCHITECT NAME ADDRESS | LIC CLASS ACTIVE STATE LIC. NO. CITY BUS. LIC NO PHONE NO.

ENGINEER: Amcadd Svc

CONTRACTOR: L & M Lopore / 15904 Strathern, Van. Wayne Perry Const / 8281 Commonwealth, Buena Pk 90621 / C21-504308 / 374191- / (818) 782-5334

PROPOSED USE OF BUILDING	EXISTING USE OF BUILDING (Leave blank for new buildings)
( ) Demo	( ) svc stn-

DESCRIPTION OF WORK
☐ DAMAGE REPAIR <10% ☐ PATCH PLASTER/ DRYWALL ☐ INT. NON-STRUCTURAL REMODEL ☐ DOOR/WINDOW CHANGEOUT ☐ RE-STUCCO/SIDING ☐ RE-ROOF

OTHER: (Describe)
Demo canopy, [redacted], islands, [redacted]
[redacted] SC Not req'd

C COMPLETE THIS SECTION ONLY FOR ONE AND TWO FAMILY DWELLINGS INVOLVING MECHANICAL WORK IN CONJUCTION WITH THE WORK DESCRIBED IN SEC. "B" ABOVE. A SEPARATE PERMIT SHALL BE OBTAINED FROM MECHANICAL BUREAU FOR ANY WORK WHICH DOES NOT MEET ANY OF THE FOLLOWING CONDITIONS
☐ ELECTRICAL WORK FOR PANEL SIZE <400 AMPS AND TOTAL FLOOR AREA <15,000 S.F. ☐ PLUMBING (NOT INCLUDING FIRE SPRINKLERS) ☐ HVAC WORK FOR HEAT/VENT SIZE < 350,000 BTU AND A.C. SIZE < 25 TONS

DESCRIPTION OF MECHANICAL WORK (Check applicable boxes above)

ELECT. CONTR. NAME ADDRESS | LIC. CLASS ACTIVE STATE LIC. NO. CITY BUS. LIC NO. PHONE NO.

PLUMB. CONTR.

HVAC CONTR.

D

NO. OF EXISTING BLDGS. ON LOT AND USE: (2) Klosk & Canopy

LENGTH	WIDTH	HEIGHT (BUILDING)	FLOOR AREA (BUILDING)
82'	45'	+14'	
STORIES	**GROUP OCCUPANCY**	**OCCUPANTS PER GROUP**	**MAX. OCCUPANCY**
1			
DWELLING UNITS	**GUEST ROOMS**	**CONSTR. TYPE**	**LIC. FABRICATOR REQ'D FOR:**
REQ'D PARKING	**PARKING PROVIDED** STD. COMP D.A.	**HEIGHT (ZONING)**	**FLOOR AREA (ZONING)**

LOCATION OF REQ'D FIRE SPRINKLERS | TYPE OF INSPECTION: EQ FS MS (GEN) | DISTRICT INSP. OFFICE: (LA) VN WLA SP

LATERAL/FDN. SYSTEMS	☐ _____SHEARWALL	☐ _____EBF/CBF	☐ _____SMRSF/OMRSF	☐ OTHER_____
	☐ CONTINUOUS/SPREAD	☐ _____PILE/CAISSON	☐ MAT/BASE ISOLATION	☐ OTHER_____
SPECIAL INSPECTIONS	☐ CONC > 2000 PSI	☐ FIELD WELDING	☐ GUNITE/SHOTCRETE	☐ GRADE BEAMS/CAISSONS
	☐ MASONRY	☐ REBAR WELDS	☐ GRADING	☐ OTHER_____

E

P.C. NO. G4222

VALUATION (Including all fixed operating equipment) $ 10,000.00

PLAN CHECK	SUPP. PLAN CHECK	E.Q. INSTR.	SUPPLEMENT TO PERMIT NO.
90.10		2.10	
HILLSIDE POSTING	**BLDG. PERMIT**	**PLAN MAINT.**	**PLAN CHECKED BY**
	106.00		B. Kanegawa
PRE-INSPECTION	**ELEC. PRMT. (26%)**	**FIRE HYDRANT**	**D.A. PLAN CHECKED BY**
INVESTIGATION FEE	**PLUMB. PRMT. (26%)**	**ARTS DEV. FEE**	**ZONING VERIFIED BY** / **DATE**
			BF / 2/13/96
RELOCATION FEE	**HVAC PRMT. (13%)**	**SCHOOL DIST. FEE**	**APPLICATION APPROVED BY**
			PRINT B. Kanegawa BSID 98582
		SCH. DIST. FL. AREA	SIGN [signature] DATE 2/13/96

☐ ENERGY ☒ SURCHARGES ☐ D.A. SURCH. ☐ SEWER CAP REQ'D

PLOT PLAN ATTACHED ☒ YES ☐ NO | OTHER ATTACHMENTS (Descr.) ☐ YES

Unless a shorter period of time has been established by an official action, plan check approval expires one and a half years after the fee has been paid. This permit expires two years after the fee has been paid or 180 days after the fee has been paid and construction has not commenced; or if work is suspended, discontinued or abandoned for a continuous period of 180 days (Sec.98.0603 L.A.M.C). Claims for refund of fees paid on permits must be filed within one year from the date of expiration for building permits granted by the Department of Building and Safety (Sec. 22.12 & 22.13 L.A.M.C.).

B & S 08-B-B Rev. 2/95

FOR CASHIER'S USE ONLY

02/13/96 11:11:50AM LA05 T-3013 C 30

BLDG PLAN CHEC	90.10
DEMO PERMIT	106.00
EI COMMERCIAL	2.10
SYS DEV	11.89
ONE STOP	3.96
MISCELLANEOUS	5.00
CITY PLAN SURC	5.88
FROM TRAN 3012 TO 3013	
TOTAL	333.29
CHECK	333.29

96LA 47812

BUREAU OF ENGINEERING
OK TO ISSUE DEMO PERMIT
ON THIS DATE ONLY 2/13/96
BY: Leo S Log #. 592

SEWERS
☐ AVAILABLE
☐ NOT AVAILABLE
SEWER RESERVATION NO. SEWER CERTIFICATE NO.

PLANNING WORKSHEET NO.
APPROVED UNDER CASE NO.
LANDSCAPE/XERISCAPE
SITE PLAN REVIEW

CURB RAMP | DRIVEWAY
FLOOD | INDUSTRIAL WASTE

SEWER FACILITIES CHARGE
☐ NOT APPLICABLE
☐ DUE
☐ PAID

FIRE DEPT
☐ APPROVED TITLE 19 (L.A.M.C. Sec. 700)
☐ HYDRANT UNIT
☐ OTHER

HIGHWAY DEDICATION
☐ REQUIRED
☐ COMPLETED

GRADING DIVISION
☐ HILLSIDE NOTICE MAILED
☐ HILLSIDE NOTICE POSTED
☐ PRIVATE SEWAGE SYSTEM OK

DEPT. OF TRANSPORTATION
☐ DRIVEWAY LOCATION
☐ PARKING METER NO.

EXCAVATION ADJACENT TO PUBLIC WAY

CONSTR. TAX RECEIPT NO. DWELLING UNITS

CAL OSHA

HOUSING AUTHORITY

CRA APPROVED RE-DEV. PROJECT
Steven Jones 2/13/96

ADD'L BRACES

CULTURAL AFFAIRS

CEQA

DEPT. WATER & POWER

COMPLETE FOR RELOCATION PERMITS ONLY
OLD ADDRESS

☐ FROM OUTSIDE CITY OF L.A.

CASH/SURETY BOND NO.

MILES MOVED

(1)

LICENSED CONTRACTOR AND WORKERS' COMPENSATION DECLARATION

GENERAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the general contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible for the following permits.

☐ Building ☐ Electrical ☐ Plumbing ☐ HVAC

I hereby affirm, under penalty of perjury, one of the following declarations.

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier [illegible] Policy No. NWC 182912-02

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign [signature] Date 2-13-96

ELECTRICAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the electrical contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the electical permit.

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are.

Carrier _____ Policy No. _____

☐ I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign _____ Date _____

PLUMBING CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the plumbing contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the plumbing permit.

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier _____ Policy No. _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign _____ Date _____

HVAC CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the HVAC contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the HVAC permit.

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are

Carrier _____ Policy No. _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions

Sign _____ Date _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL BE SUBJECT TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF THE COMPENSATION DAMAGES AS PROVIDED FOR IN SEC. 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

(2)

CONSTRUCTION LENDING AGENCY

I hereby affirm, under penalty of perjury, that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civil Code).

Lender's name _____ Lender's Address _____

(3)

ASBESTOS REMOVAL

☒ I declare that notification of Asbestos Removal is not applicable ☐ I declare that a notification letter has been sent to the AQMD or EPA

Sign [signature] Date 2-13-96

(4)

OWNER-BUILDER DECLARATION

I hereby affirm, under penalty of perjury, that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business & Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chap. 9 commencing with Sec. 7000 of Div. 3 of the Business & Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit, subjects the applicant to a civil penalty of not more than five hundred dollars ($500):

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to the owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not intend to improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

☐ I am exempt under Sec. _____, Bus. & Prof. Code for the following reason _____

Print _____ Sign _____ Date _____ ☐ OWNER ☐ AUTHORIZED AGENT

(5)

FINAL DECLARATION

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes. I realize that this permit is an application for inspection and that issuance or approval of the work specified herein, also, that it does not authorize or permit any violation or failure to comply with any applicable law. Further, I realize that neither the City of Los Angeles nor any board, department, officer or employee thereof, make any warranty, nor shall be responsible for the performance or results of any work described herein, nor the condition of the property nor the soil upon which such work is performed.

Print _____ Sign [signature] Date 2-13-96 ☐ OWNER ☒ AUTHORIZED AGENT ☒ CONTRACTOR

4 10 0 4 0 3 2 2 0

THIS PERMIT IS FOR (Mark one)
☐ NEW BLDG./ STRUCTURE ☐ ADD, ALTER, REPAIR EXISTING BUILDING
☐ RELOCATE EXIST. BLDG. ☒ DEMOLITION OF ENTIRE BUILDING

CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
BUILDING PERMIT PLOT PLAN
PLEASE DRAW AND LABEL CLEARLY IN INK

INCIDENT CODE

REF. NO.:

PROJECT ADDRESS	SUITE/UNIT NO.	CROSS STREETS		
3996 S. Vermont Av.		MLK Jr. & Vermont Av.		
TRACT(S) and COUNTY REF. NO. (For alpha tract(s) e.g. J.G. McDonald Tract (MR 70-20))		BLOCK	LOT(S) and ARB(S) e.g. 15, 16 (Arb 3), 17, 18	DIST. MAP
2411 (MP26-77/79)			10	114B197
				ASSESSOR'S ID

Corner Irreg (2-Lt) Var R1R1 2317 nwm 11-27-06

SHOW ALL BUILDINGS ON LOT AND LABEL RESPECTIVE USES

VERMONT AVENUE

MARTIN LUTHER KING

ALLEY

8' CL FENCE

DEMOLITION ITEMS:

1. EXISTING CONCRETE DRIVE SLAB TO BE REMOVED
2. EXISTING CONCRETE SIDEWALK TO REMAIN UNDISTURBED
3. PROPERTY LINE
4. EXISTING 6' BLOCK WALL TO BE REMOVED
5. EXISTING TRASH ENCLOSURE TO BE REMOVED
6. EXISTING WATER METER BOX TO REMAIN
7. EXISTING TELEPHONE LINES TO BE REMOVED (UNKNOWN LOCATION)
8. EXISTING CANOPY DRAIN LINE TO BE REMOVED AND PLUGGED AT PROP. LINE
9. EXISTING SANITARY SEWER SERVICE TO BE PLUGGED AT PROP. LINE (UNKNOWN LOCATION)
10. EXISTING WATER SERVICE LINE TO BE PLUGGED AT PROP. LINE (UNKNOWN LOCATION)
11. EXISTING CANOPY AND COLUMNS TO BE REMOVED
12. EXISTING ISLANDS TO BE REMOVED
13. EXISTING KIOSK TO BE REMOVED
14. EXISTING CONCRETE YARD PAVEMENT TO BE REMOVED
15. EXISTING TRASH ENCLOSURE SLAB TO BE REMOVED
16. EXISTING PRODUCT TANK TO BE REMOVED (5)
17. EXISTING SIGN TO BE REMOVED
18. EXISTING AREA LIGHTS TO BE REMOVED AND SALVAGED
19. EXISTING CONCRETE TANK SLABS TO BE REMOVED

NOTES:

1. ALL DEBRIS SHALL BE WET AT TIME OF HANDLING TO PREVENT DUST.
2. CALL FOR INSPECTION AT LEAST 24 HOURS BEFORE STARTING WORK.
3. APPROVAL OF PROTECTION FENCES AND CANOPIES IS REQUIRED PRIOR TO DEMO.
4. ALL BASEMENT FILLS SHALL BE CLEAN AND UNTORN.
5. ALL EXISTING SITE ELEVATIONS AND GRADES ARE TO REMAIN AS THEY ARE (E/E)
6. REMOVE ALL EXISTING UNDERGROUND STORAGE TANKS.
7. REMOVE ALL EXISTING UNDERGROUND ELECTRICAL CONDUITS.
8. REMOVE ALL EXISTING UNDERGROUND PIPING (VAPOR,VENT AND PRODUCT).
9. REMOVE ALL EXISTING FOOTINGS & FOUNDATIONS FOR KIOSK, CANOPY AND TRASH ENCLOSURE.
10. NO DEMOLITION WORK TO BE COMPLETED OUTSIDE OF PROPERTY LINE.
11. METHOD OF DEMOLITION SHALL BE PROVIDED BY CONTRACTOR AT TIME OF PERMIT PICK UP.
12. FREE FALL DUMPING OVER EXTERIOR WALL WILL NOT BE ALLOWED FOR HEIGHT MORE THAN 25 FT.

DO NOT MARK IN THIS AREA

All applications must be filled out by applicant.

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Ward 9

Applicant must indicate the Building Line or Lines clearly and distinctly on the Drawings.

Application for Erection of Frame Buildings

CLASS "D"

Application is hereby made to the Chief Inspector of Buildings of the City of Los Angeles, for the approval of the detailed statement of the specifications and plans herewith submitted for the erection of the building herein described. All provisions of the Building Ordinances shall be complied with in the erection of said building, whether specified herein or not.

(Sign here) Lorenz Frey & Hansen

Los Angeles, Cal., JUL 28 1908 190 5

TAKE TO ROOM NO. 6 FIRST FLOOR

ASSESSOR PLEASE VERIFY

Lot No. 127 Block 2 Westlake Park Tract

District No. 15 M. B. page 12 F. B. page 229

TAKE TO ROOM NO. 34 THIRD FLOOR

ENGINEER PLEASE VERIFY

No. 3996 Vermont Ave Street

OFFICE

1. Purpose of the building Office
2. Number of rooms 2
3. Is any part to be used for store or other business purposes?
4. Owner's name Lorenz Frey & Hansen
5. Owner's address 201 Laughlin Building
6. Architect's name
7. Builder's name Lorenz Frey & Hansen
8. Builder's address
9. Entire cost of proposed building, $ 150
10. Will building be erected on front or rear of lot? Front
11. Size of lot 67 x 135 Size of building 20 x 14
12. Number of stories in height 1; height from curb level to highest point
13. Height of first floor above curb level 6"
14. What is the character of the ground: rock, clay, sand, filled, etc.? —
15. What will be the depth of the foundation below curb level? —
16. Of what material will foundation and cellar walls be built? 2x6 Redwood
17. Give dimensions of footings
18. Give thickness of foundation and cellar walls at top
19. Number and kind of chimneys None Number of flues None
20. Number of inlets to each flue — Interior size of flues — x —
21. What will be the size of the mud sills 2 x 6 Size of girders or stringers 4 x 4
22. What will be the size of exterior studs? 2 x 3 Interior studs 2 x 3
23. Bearing partition studs — x —

PERMIT NO. 4054

OVER

24. Give size of floor joist:
First floor 2 x 6 Third floor x
Second floor x Fourth floor x
25. Give size of ceiling joist 2 x 3 Size of rafters 2 x 3
26. Will the roof be peak, flat or mansard? Peak Material of roofing Asphalt
27. Will cellar or basement ceiling be plastered? — Metal or wood lath? —
28. Of what material will floors be constructed? 1 x 4 D&M
How many thicknesses? 1
What kind of fireproofing? —
29. How will hall and soffits of stairs be plastered? —
30. How many fire escapes will be provided? — Where placed? —
31. Are any buildings to be demolished? — How many? —

REMARKS.

BLDG. FORM 2

All Applications must be filled out by Applicant

PLANS AND SPECIFICATIONS
and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2 Application for the Erection of Frame Building

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley, or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

TAKE TO ROOM No. 6 FIRST FLOOR

CITY CLERK PLEASE VERIFY

Lot No. 129 Block ....

(Description of Property) Southern Cal. Agricultural Park Tr.

Lot 10

M No 2411

District No. 18 M. B. Page 14 F. B. Page 30

O. K. City Clerk By ... Deputy.

TAKE TO ROOM No. 405 SOUTH ANNEX

ENGINEER PLEASE VERIFY

No. 3998 S. Vermont Ave

(Location of Job)

N.E. cor. South Barabee & Vermont Street

O. K. City Engineer By ... Deputy.

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Battery Service No. of Rooms 1 No. of Families ....
2. Owner's name Western Auto & Elec Co Phone ....
3. Owner's address Geo. F. Hoke ....
4. Architect's name Joseph F. Rhodes Phone Res 414
5. Contractor's name Joseph F. Rhodes Phone Res 414
6. Contractor's address 1141/2 Central Bldg
7. ENTIRE COST OF PROPOSED WORK {Including Plumbing, Gas Fitting, Sewers, Cesspools, Elevators, Painting, Finishing, etc.} $ 1000.00 Tax
8. Any other building on the lot? No How used? ....
9. Size of the proposed building 32° x 40° Height to highest point 16 feet
10. Number of stories in height 1 Character of ground Natural
11. Material of foundation Concrete Size footings 12" Size wall 8" Depth below ground 6"
12. Material of chimneys — Number of inlets to flues — Interior size of flues — x —
13. Give sizes of following materials: REDWOOD MUDSILLS 4 x 6 Girders 4 x 8

EXTERIOR studs 2 x 3 INTERIOR BEARING studs — x — Interior Non-Bearing studs — x — Ceiling joists 2 x 4 Roof rafters — x — FIRST FLOOR JOISTS — x —

Second floor joists — x — Specify material of roof 2 ply Composition

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

OVER

(Sign here) G. Warren Talbot
(Owner or Authorized Agent.)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Building permit is issued
1853 ✓	Plan Examiner.	MAR 18 1919 Clerk	RECEIVED MAR 18 1919 CITY CLERK

4

NOTE—Answer the Following Questions For Dwellings and Flats Only:—

STATE DWELLING HOUSE ACT

14. Are there any living rooms in basement?.....

15. What is least area of any living room?.....

16. What is the least width of any living room?.....

17. What is the minimum ceiling height?.....

18. Give least size of window courts.....

19. Give maximum cornice projections.....

20. Will windows in each room be equal to one-eighth (1/8) of floor area?.....

21. What is the minimum height of floor joists above ground?.....

22. Will entire space underneath building be enclosed?.....

23. Will removable ventilating screens be provided for space under building?.....

24. Will a toilet be provided for each family?.....

25. Give size of windows for toilets or bath rooms.....

26. Will all provisions of State Dwelling House Act be complied with?.....

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) .....
(Owner or Authorized Agent.)

PERMIT APPLICATION FOR INSPECTION OF SIGNS

B&S B-5—R.1-74

CITY OF LOS ANGELES — DEPT. OF BUILDING AND SAFETY

51

INSTRUCTIONS: 1. Applicant to Complete Numbered Items Only.
2. Plot Plan Required on Back of Original.

1. LOT / LEGAL DESCR. Frac 9+10	BLK.	TRACT 2411	DIST. MAP 429
			CENSUS TRACT 2312.00
2. TYPE OF SIGN OR NEW WORK (19) Pole Sign-Los Angeles City Standard #109 ☐ RESIDENTIAL ☒ COMMERCIAL			ZONE C2-1-O
3. JOB ADDRESS 3994 So Vermont Av			FIRE DIST. 2
4. BETWEEN CROSS STREETS Santa Barbara Av AND 39TH St			LOT (TYPE) Corner.
5. OWNER'S NAME Independent Outdoor Advertising, Inc. PHONE 933-8391			LOT SIZE IRREG.
6. OWNER'S ADDRESS 316 So. La Brea Ave. CITY Los Angeles, ZIP 90036			
7. ARCHITECT OR ENGINEER Cornelius A. Van Dam STATE LICENSE NO. 14955 PHONE (714) 985-4390			ALLEY 20' REAR.
8. QUALIFIED INSTALLER Independent Outdoor Advertising, Inc. STATE LICENSE NO. PHONE 219			BLDG. LINE 15' VAR. ST. BARBS
9. BRANCH LENDER ---------- ADDRESS CITY			AFFIDAVITS

10. SIZE OF EXISTING BUILDING WIDTH LENGTH	TYPE	STORIES	EXT. WALL CONST.	ROOF CONST.
11. SIZE OF SIGN 6 x 12	TOTAL COPY AREA 144 sq.ft.	OVERALL HEIGHT →	FROM GRADE 15'	FROM ROOF
12. MATERIAL OF SIGN CONSTRUCTION →	SUPPORTING FRAME Metal	FRAME OF COPY Metal		SURFACE OF SIGN Metal

S 13. JOB ADDRESS 3994 So. VERMONT AV — DIST. OFFICE 6A

14. VALUATION TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED SIGN $ 400.00 — GRADING —

15. TYPE OF SIGN OR NEW WORK Pole Sign-Los Angeles City Standard 109 ☐ SINGLE FACE ☒ DOUBLE FACE — CONS. —

16. ILLUMINATION ☒ None ☐ INTERNAL ☐ EXTERNAL ☐ ~~FLASHING~~ ☐ ~~REVOLVING~~ ☐ ~~OTHER~~ None — ZONED BY H. Myers

17. NO. OF SIGNS OR GAS TUBE SYSTEMS —	NO. OF ADDITIONAL BRANCH CIRCUITS —	NO. OF CONTROL DEVICES —	FREEWAY CHECKED

CLEARANCES AND/OR APPROVALS REQUIRED	Yes	No
FREEWAY SURVEY	☐	☐
TRAFFIC DEPT.	☐	☐
BOARD	☐	☐

ELECTRICAL PERMIT FEES

SIGNS/G.T. SYSTEMS	
ADDITIONAL CIRCUITS	
CONTROL DEVICES	
BLDG. PERMIT	7.60
ISSUING FEE	
S.P.C.	
E.P. TOTAL	7.60

PLANS CHECKED — FREEWAY CLEARED Standard

PLANS APPROVED — DATE 10-28-74

APPLICATION APPROVED — FILED WITH

CONT. INSP. — INSPECTOR

P.C. 6.46 — I.F. — G.P.I. — TYPIST

P.C. NO. 1

PLAN CHECK EXPIRES SIX MONTHS AFTER FEE IS PAID. PERMIT EXPIRES ONE YEAR AFTER FEE IS PAID OR SIX MONTHS AFTER FEE IS PAID IF CONSTRUCTION IS NOT COMMENCED.

CASHIER'S USE ONLY

OCT-28-74 291705 •98893 V — 6 CK 6.46

OCT-28-74 291715 •98893 V 11—CK 7.60

STATEMENT OF RESPONSIBILITY

I certify that in doing the work authorized hereby, I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance.

"This permit is an application for inspection, the issuance of which is not an approval of an authoriszation of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warrantly or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)

Signed _____ (Owner or Agent) Signature/Date _____

Bureau of Engineering	ADDRESS APPROVED	10-28-74
Conservation	APPROVED FOR ISSUE ☐ NO FILE ☐	
Traffic	APPROVED FOR ISSUE	
Municipal Arts	APPROVED FOR ISSUE	
Planning	APPROVED UNDER CASE #	
Board of Building and Safety Commissioners File #		

LEGAL DESCRIPTION

I certify that no portion of this sign will be visible from the main traveled roadway of this State Route adopted freeway and that it is within 2,000 feet of any existing or proposed freeway interchange or connection. I further understand that if this permit may be revoked and the sign required to be altered or removed should field investigation reveal freeway visibility.

Signed

Owner or Authorized Agent

NO PROJECTION OVER PL
NO PROJECTION INTO 10' OR 45' VISIBILITY TRIANGLES

N 20° 52' W

PL

TEXACO STATION

VARIABLE B/L

15'

5'

PL

SANTA BARBARA

45' VISIBILITY TRIANGLE

3

APPLICATION TO ALTER - REPAIR - DEMOLISH
AND FOR CERTIFICATE OF OCCUPANCY

B&S Form B-3

CITY OF LOS ANGELES — DEPT. OF BUILDING AND SAFETY

No 505 **INSTRUCTIONS:** 1. Applicant to Complete Numbered Items Only. 2. Plot Plan Required on Back of Original.

1. LEGAL DESCR.	LOT 9 & 10	BLK.	TRACT 2411	ADDRESS APPROVED L.D.
2. BUILDING ADDRESS 923-39 W. Santa Barbara & 3992-98 S.Vermont				DIST. MAP 4279
3. BETWEEN CROSS STREETS Vermont AND Menlo				ZONE C2--1-O
4. PRESENT USE OF BUILDING Stores.	NEW USE OF BUILDING (50) demo			FIRE DIST. II
5. OWNER'S NAME Texaco Oil Co.	PHONE			INSIDE KEY /
6. OWNER'S ADDRESS	P. O.	ZONE		COR. LOT XXX REV. COR.
7. CERT. ARCH.	STATE LICENSE	PHONE		LOT SIZE Irreg.
8. LIC. ENGR.	STATE LICENSE	PHONE		
9. CONTRACTOR Rosenthal Wrecking	STATE LICENSE C-21 150147	PHONE PI87354		REAR ALLEY 20 SIDE ALLEY
10. CONTRACTOR'S ADDRESS 726 E. Manchester	P. O.	ZONE		BLDG. LINE 20' San. Bar.
11. SIZE OF EXISTING BLDG. 100x125	STORIES 1	HEIGHT 14	NO. OF EXISTING BUILDINGS ON LOT AND USE 1	BLDG. AREA
3 923-39 W.Santa Barbara 3992-98 S.Vermont				DISTRICT OFFICE L.A.
12. MATERIAL EXT. WALLS: ☒ WOOD ☐ METAL ☐ CONC. BLOCK ☒ STUCCO ☒ BRICK ☐ CONCRETE		ROOF CONST. ☒ WOOD ☐ STEEL ☐ CONC. ☐ OTHER	ROOFING	SPRINKLERS REQ'D. SPECIFIED
13. VALUATION: TO INCLUDE ALL FIXED EQUIPMENT REQUIRED TO OPERATE AND USE PROPOSED BUILDING. $ 4,400				VALUATION APPROVED / AFFIDAVITS
14. SIZE OF ADDITION	STORIES	HEIGHT		APPLICATION CHECKED Hirata
15. NEW WORK: (Describe)	EXT. WALLS	ROOFING		PLANS CHECKED / DWELL. UNITS 10
				CORRECTIONS VERIFIED / SPACES PARKING NE
				PLANS APPROVED / GUEST ROOMS
				APPLICATION APPROVED / FILE WITH
				INSPECTOR / CONT. INSP.

Demo SC# 39697

I certify that in doing the work authorized hereby I will not employ any person in violation of the Labor Code of the State of California relating to workmen's compensation insurance, and I have read reverse side of Application.

Signed Leslie Rosenthal

This Form When Properly Validated is a Permit to Do the Work Described.

TYPE	GROUP	MAX. OCC.	P.C.	S.P.C.	G.P.I.	B.P.	I.F.	O.S.	C/O
III A	G-1		—	—	—	19.60	/		

CRITICAL SOIL

SEWER (Available)

CASHIER'S USE ONLY

AUG-11-64 39697 S •73467 Z — 1 CK 19.60

P.C. No. ____ GRADING / CRIT. SOIL / CONS. /

LEGAL DESCRIPTION

ON PLOT PLAN SHOW ALL BUILDINGS ON LOT AND USE OF EACH

Bldg to be hand Wreck[illegible]
No Basement.

SCOPE OF PERMIT

"This permit is an application for the [illegible], the issuance of which is not an approval or an authorization of the work specified herein. This permit does not authorize or permit, nor shall it be construed as authorizing or permitting the violation or failure to comply with any applicable law. Neither the City of Los Angeles, nor any board, department, officer or employee thereof make any warranty or shall be responsible for the performance or results of any work described herein, or the condition of the property or soil upon which such work is performed." (See Sec. 91.0202 L.A.M.C.)

Appendix I.2

Phase I ESA
Los Angeles Coliseum, Sports Arena, and
Parking Lots 2, 3, 4, 5, and 6

Converse Consultants

Over 50 Years of Dedication in Geotechnical Engineering and Environmental Sciences

Phase I Environmental Site Assessment Report

Los Angeles Coliseum, Sports Arena,
and Parking Lots 2, 3, 4, 5, and 6
Los Angeles, California

CONVERSE Project No. 10-42-176-01

January 24, 2012

Prepared For:

University of Southern California
Real Estate and Asset Management
3335 South Figueroa Street, Unit G
Los Angeles, California 90007

Prepared By:

CONVERSE CONSULTANTS
186 East Paularino Road, Suite B
Costa Mesa, California 92626

Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

January 24, 2012

Mr. Peter Songster
University of Southern California
Real Estate and Asset Managemtn
3335 South Figueroa Street, Unit G
Los Angeles, California 90007

Subject: **PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**
Los Angeles Memorial Coliseum, Sports Arena,
and Parking Lots 2, 3, 4, 5, and 6
Los Angeles, California
CONVERSE Project No. 10-42-176-01

Mr. Songster:

CONVERSE CONSULTANTS (CONVERSE) is pleased to submit the attached report that summarizes the activities and the results of a Phase I Environmental Site Assessment (Phase I ESA) that was conducted at the referenced property (Property).

A summary of the assessment is presented in the Executive Summary, as well as in Sections 7.0, 8.0, and 9.0 of the report. Non-scope items are discussed in Section 11.0. Recognized Environmental Conditions were identified during this assessment.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact Lisa Walldez at (626) 930-1250 or Laura Tanaka at (714) 444-9660.

CONVERSE CONSULTANTS

Lisa Walldez
Staff Environmental Scientist

Laura Tanaka
Principal Environmental Scientist

Dist.: 2/Addressee; 1/Addressee via Electronic Mail (PDF Format)

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Executive Summary

The following is an Executive Summary of the Phase I Environmental Site Assessment (Phase I ESA) that was conducted by CONVERSE CONSULTANTS (CONVERSE). Please refer to the appropriate sections of the report for a complete discussion of these issues. In the event of a conflict between this Executive Summary and the report, or an omission in the Executive Summary, the report shall prevail.

This report presents the results of the CONVERSE Phase I ESA performed at Los Angeles Memorial Coliseum, Sports Arena, and Parking Lots 2, 3, 4, 5, and 6 in the City of Los Angeles, Los Angeles County, California, referred to as the Property in this report. CONVERSE was retained by University of Southern California to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical within the scope of an ESA, Recognized Environmental Conditions (RECs) in connection with the Property.

CONVERSE has compiled and reviewed information that was obtained from interviews, document research, and on-site and area reconnaissance to identify potential environmental conditions at the Property, in conformance with the ASTM Standard E: 1527-05 Environmental Site Assessment Standard Practice (ASTM Standard: E1527-05). This Phase I ESA was conducted during the period of December 19, 2011 to January 24, 2011.

The Property is currently addressed as 3911 and 3939 South Figueroa Street. The Property is partially bound by Martin Luther King Jr. Boulevard on the south, South Figueroa on the east, South Vermont Avenue and Bill Robertson Lane on the west, in the City of Los Angeles, Los Angeles County, California. The Property is located approximately 400 feet west of Interstate 110 (San Pedro Freeway) and 1.36 miles south of Interstate 10 (Rosa Parks Freeway).

Current Parking Lots 2 and 3: As early as 1900, the northwest portion of the Property was partially developed for residential and/or agricultural purposes. As early as 1909, commercial structures were introduced into this portion of the Property. These lots are located between South Vermont Avenue and Agricultural Avenue (later renamed Menlo Avenue and again renamed Bill Robertson Lane), divided by West 39th Street, and extending into Leighton Avenue. In 1922, a “dyeing and cleaning” shop was depicted at 3910-3912 South Vermont Avenue. No agriculturally related structures were observed at this portion of the Property by 1928. A gas station was constructed at 3836 South Vermont Avenue in 1931 and was present until as late as 1950. Also identified in 1950, was an auto painting business bowling pin servicing (3804-3806 South Vermont Avenue), (3820 South Vermont Avenue), auto sales lot (3920-3922 South Vermont Avenue), a cabinet shop (921-923 West 39th Street), and artificial limb manufacturer (926-928 West 39th Street). From 1951 to 1956, the majority of the structures had been demolished or removed. The area was graded and redeveloped as parking lots; with

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the exception of a few multi-tenant residential properties and a restaurant. Only one residential property was present in 1994, while the remaining area was used as parking lots; however, by 2002, the area was fully dedicated as parking lots.

Current Coliseum area, Parking Lots 4, 5, and 6: As early as 1907, the central portion of the Property was depicted as the Agricultural Park with race and driving courses and associated structures e.g. Exhibition Pavilion, corrals, clubhouse, grand stand, etc.). Construction on the Los Angeles Memorial Coliseum began in 1921, which replaced the Agricultural Park. The Coliseum was completed with associated structures (ticket offices, water closets, athletic buildings, etc.) and opened in 1923. A lawn area and the Los Angeles Park Department – identified with gasoline storage – were present east of the Coliseum from as early as 1928 through to 1956. By 1958, construction began on the Los Angeles Sports Arena and was completed in 1959.

The southern portion of the Property, which bordered on West Santa Barbara Avenue (currently known as Martin Luther King Jr. Boulevard) had no use indicated until 1919, at which time stock barns and house barns were constructed for the Los Angeles Livestock Show. This area was redeveloped in the 1920s as primarily residential properties but with a few commercial properties as well. In 1923, a blacksmith and machine shop was constructed at 515½ West Santa Barbara Avenue. An auto repair facility was depicted at 739 West Santa Barbara Avenue of the Property from 1950 though to 1959. By 1960, this area was fully redeveloped as parking lots.

Currently, the Property operates as the Los Angeles Coliseum, Los Angeles Sports Arena, and five parking lots (Lots 2, 3, 4, 5, and 6). The Coliseum and Sports Arena each have several storage areas. Items stored included, but not limited to, water-based paint, cylinders and drums of refrigerants, metal and plastic containers for gasoline/diesel fuel, cleaning supplies, propane, drum for broken/used lights containing trace amounts of mercury, various types of oil, liquid propane gas (LPG), paint/varnish remover, paint epoxy, floor stripper, and “dyed diesel”. A 100-pound LPG aboveground storage tank (AST) was present in the storage yard located north of the adjacent VIP parking lot. A poly AST for a fertilizer-water solution to manage the football field is adjacent to the Coliseum underground tunnel.

The Coliseum is also equipped with three City of Los Angeles, Department of Water and Power (DWP) transformer substations, each with an emergency generator. The emergency generators are diesel-powered and therefore, limited amounts of diesel are present for the generators. Another diesel-powered generator is located inside the Sports Arena. Limited oil staining was observed on the concrete ground surface beneath the Sports Arena generator.

From 1950 to 1970, gas stations, auto repair (including auto painting) with auto sales lots, a printing shop, and a drycleaner were depicted as adjacent to the Property in addition to residential and commercial properties and Los Angeles Museum. At most, four gas stations were located adjacent to the Property and at least two gas stations were adjacent to the Property during this period. In 1954, the Museum of Science and

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Industry of California was north adjacent instead of the State Exposition Building. Between 1976 and 1989, only one gas station was observed (south adjacent). By 2002, one gas station was southeast adjacent to the Property.

This assessment has revealed no evidence of RECs in connection with the Property except for the following:

- Historical Property uses related to "dyeing and cleaning"/historical drycleaners, a gas station, and auto repair and auto painting.
- Historical manufacturing of cabinets, artificial limbs, and bowling pins.
- The historical 1,000-gallon UST identified at the Property.
- The gasoline storage at the Property's historical Los Angeles Park Department.
- Current hazardous materials stored at the Property.
- The historical adjacent gas stations, drycleaners, and registered UST sites.
- The gas stations currently present adjacent or within the immediate vicinity.

Based on the historical Property uses and the historical UST, Converse recommends a geophysical survey in the suspected UST area and a Phase II soil and soil vapor in the areas of the suspected UST, drycleaner, gas station and auto repair. In addition, Converse recommends a soil vapor survey to evaluate the boundaries of the Property from adjacent and vicinity of historical and current gas stations, drycleaners, and other UST sites.

With regards to the hazardous materials stored at the Property, no further assessment is warranted. CONVERSE does recommend continuing proper housekeeping and storage of materials and waste.

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1.0 Introduction

1.1 Purpose and Scope of Services

This report presents the results of the CONVERSE CONSULTANTS (CONVERSE) Phase I Environmental Site Assessment (ESA) performed at Los Angeles Memorial Coliseum, Sports Arena, and Parking Lots 2, 3, 4, 5, and 6 in the City of Los Angeles, Los Angeles, County, California, referred to as the Property in this report. CONVERSE was retained by University of Southern California (USC) to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical, Recognized Environmental Conditions (RECs) in connection with the Property. The term Recognized Environmental Conditions is defined in Section 1.1.1 of the American Society of Testing and Materials (ASTM) Standard Practice as *the presence or likely presence of any hazardous substances or petroleum products on a property under Conditions that indicate an existing release, past release, or material threat of a release… into structures on the property or into the ground, ground water or surface water of the property.*

On January 11, 2002, Public Law 107-118 was signed. The Small Business Liability Relief and Brownfields Revitalization Act (SBLRBRA) directed the United States Environmental Protection Agency (EPA) to promulgate a rule defining due diligence for compliance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This rule, which is generally referred to as All Appropriate Inquiry (AAI) was adopted on November 1, 2005. The AAI rule states that ASTM E1527-05 complies with the EPA requirements for AAI. In some cases the ASTM 1527-05 is more stringent than AAI.

This Phase I ESA was completed in accordance with our proposal dated December 6, 2010. Our work consisted of the following and was completed in general conformance with the scope and limitations of the ASTM Practice E1527-05 and complies with standards and practices set forth in 40 Code of Federal Regulations (CFR) Part 312 for AAI.

- Interviews with the Property owner representatives
- Property and vicinity reconnaissance
- Review of regulatory agency records
- Description of physical setting
- Historical review
- Interviews with public agency personnel
- Preparation of this report

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1.2 Non-Scope Considerations

There are a number of non-scope issues which are sometimes assessed concurrently with a Phase I ESA. Unless specifically agreed in the contract proposal documents, these non-scope considerations are not included as part of the Phase I assessment. Examples of non-scope issues include:

- Asbestos-containing building material
- Lead-base Paint
- Wetlands
- Cultural & Historic Resources
- Industrial Hygiene
- Health & Safety
- Mold
- Diffuse Anthropogenic Pollution
- Radon
- Lead in Drinking Water
- Regulatory Compliance
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Biological Agents
- Non-liquid Polychlorinated Biphenyls

No Non-scope issues were addressed in this report.

1.3 Significant Assumptions

CONVERSE made the following assumptions for this assessment:

- The Property was not covered on currently published groundwater contour maps. Therefore, the direction of regional groundwater is inferred to follow surface topography to the west.
- CONVERSE limited agency requests using historical Property addresses, because the majority of the regulatory agencies were created after the redevelopment of the Property and are unlikely to have records covering historical addresses prior to the 1970s.

1.4 Limitations and Exceptions

The following limitations and exceptions were encountered during the course of this assessment:

- CONVERSE primarily accessed the interior areas of the Los Angeles Coliseum and Sports Arena that were used for storage.
- CONVERSE requested additional information from the Los Angeles Fire Department (LAFD) Fire Prevention Division, Los Angeles Regional Water Quality Control Board (LARWQCB), South Coast Air Quality Management District (SCAQMD), Los Angeles County Department of Public Health (DPH), City of Los Angeles, Department of Public Works, Bureau of Sanitation;

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however, responses were not received during the timeframe of this assessment.

1.5 Special Terms and Conditions

No other users were identified. The Client was responsible for providing Attachment A of the proposal to those identified. CONVERSE did not receive a completed attachment A, or other documents, from the identified user.

1.6 Reliance

This report is for the sole benefit and exclusive use of the University of Southern California in accordance with the terms and conditions attached to our proposal under which these services have been provided. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. The Scope of Services associated with the report was designed solely in accordance with the objectives, schedule, budget, and risk-management preferences of University of Southern California.

This report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is present at the Property. CONVERSE makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation of the property at the time of the assessment. Also, events may occur after the Property visit, which may result in contamination of the Property. Additional information, which was not found or available to CONVERSE at the time of report preparation, may result in a modification of the conclusions and recommendations presented.

Any reliance on this report by Third Parties shall be at the Third Party's sole risk. Should University of Southern California wish to identify any additional relying parties not previously identified, a completed *Application of Authorization to Use* (see Appendix A of this report) must be submitted to CONVERSE CONSULTANTS.

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2.0 Property Description

2.1 Current Uses of the Property

The Property is owned by the Coliseum Commission and operated as the Los Angeles Coliseum, Los Angeles Sports Arena, and five parking lots (Lots 2, 3, 4, 5, and 6).

A Property location map and a field generated Property plan are provided in Appendix B. Pertinent Property photographs are provided in Appendix C.

2.2 Location and Legal Description

The Property is currently addressed as 3911 and 3939 South Figueroa Street. The Property is generally bound by Martin Luther King Jr. Boulevard on the south, South Figueroa on the east, South Vermont Avenue and Bill Robertson Lane on the west, in the City of Los Angeles, Los Angeles County, California. The Property is located approximately 400 feet west of Interstate 110 (San Pedro Freeway) and 1.36 miles south of Interstate 10 (Rosa Parks Freeway).

The Los Angeles County Assessor's Parcel Number for the Property are 5037-027-937; -923; -910; 5037-028-903; and-904. The legal descriptions of the Property are described as the following:

5037-027-937 (3911 South Figueroa Street)

> *FOR DESC SEE ASSESSOR'S MAPS*

5037-027-923 (No address)

> *SOUTHERN DISTRIC AGRICULTURAL PARK AND ADJOINING LOTS LOT COM AT NE COR OF LOT 74 TH S ON W LINE OF MENLO AVE TO A LINE PARALLEL WITH AND DIST N AT R/A 60... SEE MAPBOOK FOR MISSING PORTION ... 96 AND LOT 98*

5037-027-910 (3939 South Figueroa Street)

> *TRACT #4719 LOTS 13, 14 AND 15 AND VAC ALLEY ADJ ON W AND LOT 1 AND VAC ALLEY ADJ ON N AND LOTS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 AND LOT 12 BLK B*

5037-028-903 (No address)

> *SOUTHERN DIST AGRICULTURAL PARK AND ADJOINING LOTS LOTS 38, 42, 46, 50, 54, 58, 62, AND LOT 66*

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5037-028-904 (No address)

SOUTHERN DIST AGRICULTURAL PARK AND ADJOINING LOTS EX OF ST LOTS 41, 45, 49, 53, 57, 61 AND LOT 65

2.3 Zoning Information

According to the City of Los Angeles, Zoning Information and Mapping System, the majority of the Property is zoned as OS-1XL, which is defined as open space, with 1XL referring to the permitted Height District. One parking lot was zoned as RD1.5-1, which is defined as restricted density multiple dwelling zone with a minimum 5,000 square foot lot area.

2.3 Property Characteristics

The Property consists of five generally rectangular-shaped parcels. According to USC, the Property contains approximately 52 acres developed as parking lots, LA Memorial Coliseum and Sports Arena. However, only a portion (Parking Lots 4 and 5, LA Memorial Coliseum and Sports Arena) of the 62.99 acre parcel APN 5037-027-937 was a part of this assessment.

The Property is generally level and much of the Property is covered with asphalt-paving. The Property is occupied by the Los Angeles Coliseum and associated buildings necessary for operations and the Sports Arena.

The Property fronts onto North Coliseum Drive on the north, South Figueroa on the east, and South Vermont Avenue on the west. The South Hoover Street, South Coliseum Drive, and Menlo Avenue also divide the Property. Properties in the general area are used for recreational, commercial, and residential purposes.

2.4 Description of Property Structures

The Property parking lots were surrounded by chain-linked fenced and observed with asphalt-pavement and lighting structures.

Construction began on the Los Angeles Memorial Coliseum in 1921 and was opened in 1923. The Coliseum is primarily constructed with reinforced concrete. The Coliseum is also equipped with three City of Los Angeles, Department of Water and Power (DWP) transformer substations, each with an emergency generator. The Coliseum also has vendor booths, restrooms, storage buildings, and a workshop. The emergency generators are diesel-powered and therefore,

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limited amounts of diesel are present for the generators. Interior building materials observed in the Coliseum and/or the associated structures included concretes slab, concrete block, wood, carpet, drywall, metal, ceiling tile, and vinyl floor tile.

Construction on the Los Angeles Sports Arena began in 1958 and opened in 1959. Currently, the Sports Arena is approximately 316,700 square feet and was also constructed using reinforced concrete and steel braced frames. Interior building materials observed in the Sports Arena included concrete, wood, carpet, drywall, ceramic tile. Located between the Coliseum and the Sports Arena and north of the VIP parking lot, there is an outdoor storage area, which includes a 100-pound liquid propane gas tank.

The following services were present at the Property at the time of the assessment.

- Electricity: DWP
- Gas: Southern California Gas Company
- Potable Water: DWP
- Sanitary Sewer: City of Los Angeles
- Heating, Ventilation, Air Conditioning (HVAC): Gas-powered boilers
- Solid Waste: Consolidated Disposal

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3.0 User/Owner Provided Information & Responsibilities

3.1 Requested Documents and Information

The ASTM E1527 specifies that the Property owner, key site manager and the User provide any helpful documents that may be available. In order to facilitate, and document, the collection of this information, CONVERSE prepared a form titled Owner Interview and Helpful Information. CONVERSE requested that the User, USC, as well as the Property owner, Coliseum Commission, complete the form.

The following documents and information were requested from USC and the Mr. Robert Joyner, representative for the Coliseum Commission. However, USC and the Coliseum Commission did not provide any of the following information.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Material Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and Prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Property or surrounding area
- Notices or other correspondence form any government agency relating to past or current violations of environmental laws with respect to the Property or relating to environmental liens encumbering the Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded Activity Use Limitations (AULs)
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

3.2 User Provided Information

Section 6 of ASTM E1527-05 outlines specific User's responsibilities. This information will help identify the possibility of RECs in connection with the Property. The ASTM Standard provides a questionnaire to help the User to comply with the statutory requirements to perform tasks which would help identify

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RECs. CONVERSE included the questionnaire as Attachment A to our proposal. In general, any Users should make CONVERSE aware of information they have regarding the following:

- Environmental Cleanup Liens filed or recorded against the Property
- Activity and land use limitations that are in place on the Property or have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the Legal Liability Protections (LLP)
- Relationship of the purchase price to fair market value of the Property if it were not contaminated
- Commonly known or reasonably ascertainable information about the Property
- The degree or obviousness of the presence or likely presence of contamination at the Property, and the ability to detect this contamination by appropriate investigation.

The following information was requested from the User, USC:

3.2.1 Environmental Cleanup Liens

The User had no information regarding environmental cleanup liens or title records.

3.2.2 Activity and Use Limitations

The User did not have any information indicating they were aware of any AULs.

3.2.3 Specialized Knowledge or Experience

The User stated that they were aware of the storage and use of paint for building maintenance; however the User did not have any information indicating they had specialized knowledge or experience related to the Property or nearby property.

3.2.4 Reason for Significantly Lower Purchase Price

CONVERSE has no information regarding the purchase price of the Property or comparable properties. The User has not indicated to CONVERSE that there is any conclusion that there was a lower purchase price because of known or suspected contamination at the Property.

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3.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not have any information about specific chemicals at the Property, with the exception of paint and other maintenance chemicals; past spills; environmental cleanup or other reasonably ascertainable information regarding the Property. The User is aware of the Property's long-term use as the Los Angeles Memorial Coliseum and Sports Arena.

3.2.6 Obviousness of Contamination

The User stated that based on the age of the structures, that asbestos-containing building materials and lead-based paint may be present. The User did not have any other information or experience that would be obvious indicators of contamination on the Property.

Unless specifically stated otherwise in the Scope of Services, the purpose of this Phase I ESA was to qualify for the landowner liability protections to CERCLA Liability as described in ASTM E1527-05.

Business risk unrelated to the CERCLA innocent landowners defense are only assessed as specifically agreed in the Scope of Services and discussed in Section 11.0, Additional Non-Scope Services, of this report.

3.3 Continuing Obligations

In order to assert a LLP, the User must satisfy a number of statutory requirements that are generally referred to as Continuing Obligations, which are outside the Scope of Services of the Phase I ESA. Examples of Continuing Obligations include providing legally required notices stopping continuing releases and complying with land use restrictions. Failure to comply with these and other statutory post-acquisition requirements will jeopardize liability protection.

It is the responsibility of the User to comply with the Continuing Obligations requirements of ASTM E1527-05 and AAI.

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4.0 Records Review

4.1 Physical Setting

4.1.1 Geology

The Property is located approximately 170 to 180 feet above mean sea level with surface topography sloping towards the west (United States Geological Survey [USGS] Topographic Map, Hollywood, California, 1966 photorevised 1994).

The Property is underlain by unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 1991).

4.1.2 Groundwater

There are no active groundwater wells within a one-mile radius of the Property. The nearest groundwater well to the Property is located approximately two-miles west-southwest of the Property near the intersection of 5th Avenue and West Vernon Avenue. Los Angeles County, Department of Public Works (DPW) well number 2679G was last measured on September 22, 2009. At that time, the depth to groundwater was recorded at 169.6 feet below ground surface. The surface elevation was recorded at 129.9 feet.

The Property was not covered on currently published groundwater contour maps. Therefore, the direction of regional groundwater is inferred to follow surface topography to the west.

4.1.3 Potable Water Supplier

Potable water is supplied by the DWP through local water sources and importing water from the Metropolitan Water District (MWD) of Southern California.

4.2 Historical Review

4.2.1 Aerial Photograph and Map Review

Available historical aerial photographs (Environmental Data Resources (EDR) Inc.), Sanborn maps and USGS topographic maps, as described in

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Table 1, were reviewed. Historical Sanborn maps were provided for the years 1900, 1907, 1922, 1950, 1954, 1957, 1958, 1960, 1966, and 1970. Copies of the Sanborn maps have been provided in Appendix D.

Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
1900 1901 1902	Sanborn Maps USGS Maps	Only partial coverage of the Property and adjacent properties was provided in the 1900 Sanborn maps. The northwest portion of the Property was depicted with lots with no mapped use, residential dwellings, associated outbuildings, and an area designated as the Sky Pointer Stock Yard with corrals, stables, and a hay barn. One duplex was depicted with a wind mill and a water tank. The north adjacent properties were depicted as land with no mapped use and residential properties. There was no coverage of the south adjacent property. The east adjacent property was Agricultural Avenue, beyond which there was no Sanborn coverage. The west adjacent property was Vermont Avenue, followed by lots with no mapped use and residential properties. The general vicinity covered in this map was depicted with residential properties and lots with no mapped use.
1907	Sanborn Maps	Only partial coverage of the Property and adjacent properties was provided in the 1907 Sanborn maps. **Current Parking Lots 2 and 3:** The western portions of the Property consisted of lots between South Vermont Avenue and Agricultural Avenue, divided by West 46th Street [sic]. These lots were depicted as land with no mapped use, residential properties with associated outbuildings, and agricultural-related structures (barns, stables, sheds). The address ranges for these historical dwellings were 4330-4660 South Vermont Avenue and 4323-4633 Agricultural Avenue. **Current Coliseum area and Parking Lots 4 and 5:** The central portion of the Property and portions of the north, south, and west adjacent properties were depicted as the Agricultural Park with race and driving courses. The Property was specifically occupied by the following structures: the Exhibition Pavilion, corrals, a pigeon pen, a storage building, a cabin, a water closet, a clubhouse, the grand stand, a refreshment stand, stalls, and a water tank for sprinklers. South of the race and driving tracks was a vegetable garden belonging to the Agricultural Park. **Current Los Angeles Memorial Sports Arena and**

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		Parking Lot 6: Only the southeast corner was depicted and had no mapped use. Full coverage of the adjacent properties was not provided. The north adjacent properties that were depicted consisted of residential properties, lots with no mapped use, West 46th Street, the Pacific Light and Power Company Substation, Agricultural Park with a gasoline engine, an electric car right-of-way, the Los Angeles Railway Company's Old Car Barn (noted for storage and float making) and the Railway's Power House University Substation with transformer room and battery room. The south adjacent properties that were depicted were identified as lots with no mapped use, residential properties, continuation of the Agricultural Park (occupied by stalls). The east adjacent properties that were depicted were Agricultural Avenue, followed by residential properties, lots with no mapped use, and the Pacific Light & Power Company Substation. The west adjacent properties that were depicted consisted of South Vermont Avenue and Agricultural Avenue, followed by residential properties and lots with no mapped use. The general vicinity of the Property consisted of residential properties, lots with no mapped use, and lots occupied by agricultural-related structures. To the north of the Property at Santa Monica Avenue (now Exposition Boulevard) was the Speer Gas Machine Manufacturing Company and the California Stove & Manufacturers Company Foundry.
1922	Sanborn Maps	**Current Parking Lots 2 and 3:** The western portion of the Property consisted of lots between South Vermont Avenue and Menlo Avenue, divided by West 39th Street and extends into Leighton Avenue. These lots were depicted as land with no mapped use, residential properties with associated outbuildings, agricultural-related structures (barns, stables, sheds), and commercial properties. The address ranges for these historical dwellings were 3796-3948 South Vermont Avenue and 3825-3997 Menlo Avenue. The commercial properties fronted onto South Vermont Avenue between West 39th Street and Leighton Avenue. One property was identified as "dyeing and cleaning" and addressed as 3910-3912 South

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		Vermont Avenue. **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The majority of the Property was illustrated as a race track with the note "large, reinforced concrete and wood stadium to be built here". Structures associated with the race track within the Property boundaries were a grand stand, "paper sides", an office building, clubhouse, a lattice, and stables. South of the race track were lots with no mapped use. Access from the south was provided by South Hoover Street, which divided the Property lots. The north adjacent properties consisted of residential properties, lots with no mapped use, extension of the race track, Los Angeles Museum, and the State Exposition Building. The south adjacent properties consisted of Leighton Avenue, West Santa Barbara Avenue, followed by residential properties, lots with no mapped use, gas stations (4001 South Figueroa Street/500 West Santa Barbara Avenue and 800 West Santa Barbara Avenue/4001 South Hoover Street), Los Angeles Railway Corporation Substation and regulator house, and a swimming pool. The east adjacent properties consisted of Menlo Avenue, followed by Los Angeles Museum, and the State Exposition Building and South Figueroa Street, followed by lots with no mapped use, residential properties, and a gas station (473 West Santa Barbara Avenue/3978 South Figueroa Street). The west adjacent properties consisted of Menlo Avenue and South Vermont Avenue, followed by lots with no mapped use, residential properties, and commercial properties including gas stations (3939 South Vermont Avenue/1001 Leighton Avenue and 3799 South Vermont Avenue/1001 West 38th Street), auto repair (1005-1015 West 39th Place). The general vicinity of the Property consisted of residential properties, lots with no mapped use, and commercial properties.
1928	Aerial Photograph USGS Map	**Current Parking Lots 2 and 3:** The western portion of the Property consisted of residential, commercial, and vacant lots between South Vermont Avenue and Menlo Avenue, divided by West 39th Street and extends south into Leighton Avenue.

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6: This portion of the Property was developed as the Los Angeles Memorial Coliseum stadium, residential structures, a lawn area, and a large building that appeared to be associated with the Coliseum. The north adjacent properties consisted of residential properties, the Los Angeles Museum, and the State Exposition Building. The south adjacent properties consisted of Leighton Avenue and West Santa Barbara Avenue, followed by residential properties, commercial properties, and a swimming pool. The east adjacent properties consisted of Menlo Avenue, the Los Angeles Museum, and South Figueroa Street, followed by vacant lots, and residential properties. The west adjacent properties consisted of Menlo Avenue and South Vermont Avenue, residential properties, commercial properties, and a swimming pool. The general vicinity of the Property consisted of residential properties and commercial properties.
1938 1947 1950	Aerial Photographs Sanborn Maps	**Current Parking Lots 2 and 3:** The western portion of the Property consisted of lots between South Vermont Avenue and Menlo Avenue, divided by West 39th Street and extends south into Leighton Avenue. These lots consisted of vacant land, residential properties (single- and multi-tenant) with associated outbuildings, and commercial properties. The commercial properties located at the Property included bowling pin servicing (3804-3806 South Vermont Avenue), auto painting (3820 South Vermont Avenue), a gas station (3836 South Vermont Avenue), a cabinet shop (921-923 West 39th Street), an artificial limb manufacturer (926-928 West 39th Street), a garment manufacturer (926-928 West 39th Street), and a used auto sales lot (3920-3922 South Vermont Avenue). The address ranges for this portion of the Property were 3796-3946 South Vermont Avenue and 3786-3937 Menlo Avenue. **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The majority of the Property was illustrated as the Los Angeles Coliseum with an interior racetrack. The Los Angeles Coliseum also had associated buildings noted as an

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		athletic building, Los Angeles Park Department Storage with gasoline storage (3915 and 3915½ South Figueroa Street), and offices with addresses ranging from 3839-3981 South Figueroa Street and 3926-3960 Menlo Avenue. The stadium was described as wooden seats on sloping reinforced concrete stands. The southern portion of this area, bordered by West Santa Barbara Avenue, were primarily developed as residential properties, a few commercial properties (restaurants and stores), the stage storage and depot, and an auto repair facility (739 West Santa Barbara Avenue). The residential and commercial property addresses ranged from 511 to 829½ West Santa Barbara Avenue. The eastern portion of the Property appeared to be a lawn area. The north adjacent properties consisted of residential properties, a used car mart and auto repair (3790 South Vermont Avenue), a portion of the race track, the Los Angeles Museum (3938 Menlo Avenue), and the State Exposition Building. Further north and northwest were gas stations (936 and 1000 Exposition Boulevard/3775 and 3776 South Vermont Avenue), auto repair with auto painting or auto sales (930 Exposition Boulevard and 3779 South Vermont Avenue). The south adjacent properties consisted of Leighton Avenue and West Santa Barbara Avenue, followed by residential properties, used car sales with paint spray booth and auto repair (936 Leighton Avenue/3954-3960 South Vermont Avenue), Los Angeles Swimming Stadium (3980 Menlo Avenue), a gas stations with auto repair (800 West Santa Barbara Avenue/4013 South Hoover Street), Los Angeles Transit Lines Substation (798 West Santa Barbara Avenue/4000 South Hoover Street), commercial properties, and the Fox Figueroa Theater and stores (500-516 West Santa Barbara Avenue/4001-4021 South Figueroa Street). The east adjacent properties consisted of Menlo Avenue, the Los Angeles Museum, and South Figueroa Street, followed by lots with no mapped use, residential properties, and the Coliseum Hotel. The west adjacent properties consisted of Menlo Avenue and South Vermont Avenue, residential properties, and commercial properties including gas stations (3949 South Vermont Avenue/1001 Leighton Avenue), a gas station with auto repair (1000 West 39th Place), auto repair (1005-1015 West 39th Place,

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		3943½-3949½), a cleaning shop (1003 West 38th Street), auto sales lot with auto repair (3815 and 3833-3835 South Vermont Avenue), printer (3819 South Vermont Avenue), drycleaner (3827 South Vermont Avenue). Located southwest adjacent was an auto repair property (3951 South Vermont Avenue/1000 Leighton Avenue), and Los Angeles Swimming Stadium (3980 Menlo Avenue). The general vicinity of the Property consisted of residential properties and commercial properties.
1954	Sanborn Maps	**Current Parking Lots 2 and 3:** The western portion of the Property consisted of lots between South Vermont Avenue and Menlo Avenue, divided by West 39th Street and extends south into Leighton Avenue. These lots consisted of five apartment properties and lots identified as parking lots. The address ranges for this portion of the Property were 3796-3934 South Vermont Avenue, 3789-3941 Menlo Avenue, 900-936 West 39th Street), 901-935 Leighton Avenue). **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The majority of the Property was illustrated as the Los Angeles Coliseum with one interior race track. The Los Angeles Coliseum also had associated buildings (ticket offices and water closets) and the Los Angeles Park Department Storage with gasoline storage (3915 and 3915½ South Figueroa Street), The addresses associated with the Coliseum were 3938-3960 Menlo Avenue, and 3981 South Figueroa Street. The southern portion of this area, bordered by West Santa Barbara Avenue, were primarily developed as residential properties, a few commercial properties (restaurants and stores), the stage storage and depot (3996 South Hoover Street), and an auto repair facility (729 West Santa Barbara Avenue). The residential and commercial property addresses ranged from 511 to 829½ West Santa Barbara Avenue and 3995 South Figueroa Street. The north adjacent properties consisted of a parking lot and residential properties, Coliseum Drive, the Los Angeles Museum (3750 Menlo Avenue/890 Exposition Boulevard), and the Museum of Science and Industry of California. Further north and northwest were gas stations (936 and 1000 Exposition Boulevard/3775 and 3776 South Vermont Avenue), and auto repair with auto sales (3785 South Vermont Avenue). The south adjacent properties consisted of Leighton Avenue and West Santa Barbara Avenue, followed by

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		residential properties, parking lot, Los Angeles Swimming Stadium (3980 Menlo Avenue), a gas stations with auto repair (800 West Santa Barbara Avenue/4013 South Hoover Street), Los Angeles Transit Lines Substation (798 West Santa Barbara Avenue/4000 South Hoover Street), commercial properties, and the Fox Figueroa Theater and stores (500-516 West Santa Barbara Avenue/4001-4021 South Figueroa Street). The east adjacent properties consisted of Menlo Avenue, Los Angeles Museum (3750 Menlo Avenue/890 Exposition Boulevard), and South Figueroa Street, followed by lots with no mapped use, residential properties, and the Coliseum Hotel. The west adjacent properties consisted of Menlo Avenue and South Vermont Avenue, and commercial properties including gas stations (3949 South Vermont Avenue/1001 Leighton Avenue), a gas station with auto repair (1000 West 39th Place), auto sales lot with auto repair (3833-3835 South Vermont Avenue), sign painting shop (3819 South Vermont Avenue), drycleaner (3827 South Vermont Avenue), and Los Angeles Swimming Stadium (3980 Menlo Avenue),. The general vicinity of the Property consisted of residential properties and commercial properties.
1956 1957	Aerial Photograph Sanborn Maps	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1954 Sanborn maps with the exception of: **Current Parking Lots 2 and 3:** The corner of Menlo Avenue and West 39th Street (southeast corner of Lot 2) was converted from apartment properties to more parking lots. However, the restaurant (901 West 39th Street/3839 Menlo Avenue) was still present. **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The Coliseum included additional structures for dressing rooms and lockers and the Los Angeles Park Department Storage with gasoline storage (3915 and 3915½ South Figueroa Street) was no longer present and lawn area appeared to be graded and vacant. The south adjacent properties beyond Leighton Avenue consisted of parking lots. East adjacent of the Property, beyond South Figueroa Street, was a gas station (3900 South Figueroa Street).

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
1958	Sanborn Maps	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1957 Sanborn maps with the exception of: West of the Property, beyond South Vermont Avenue, there was a painting shop identified at 3937 South Vermont. Located to the northwest, the auto repair and auto sales lot (3785 South Vermont Avenue) was converted to a commercial property.
1959	Sanborn Maps	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1958 Sanborn maps with the exception of: **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The majority of the Property along West Santa Barbara Avenue, formerly residential properties, was converted into parking lots, with the exception of a few commercial properties at 3995 South Figueroa Street and 511, 789-799, and 801-811 West Santa Barbara Avenue, 3980-3998 South Hoover Street). The auto repair shop was also no longer present. The east portion of the Property was developed with the Los Angeles Sports Arena (3911 South Figueroa Street). West of the southern portion of the Property along West Santa Barbara Avenue, the formerly residential properties were a parking lot.
1960	Sanborn Maps	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1959 Sanborn maps with the exception of: **Current Coliseum, Los Angeles Memorial Sports Arena and Parking Lots 4, 5, and 6:** The southern portion of the Property, along West Santa Barbara Avenue, was redeveloped as parking lots.
1965 1966	Aerial Photograph Sanborn Maps USGS Map	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1960 Sanborn maps with the exception of: Located south adjacent beyond West Santa Barbara Avenue consisted of parking lots, residential properties, a vacant theater, stores, and a gas station and auto repair facility (800 West Santa Barbara Avenue and 4013 South Hoover Street). The Interstate 110 was present in the eastern vicinity of the Property.
1968	Sanborn Maps	No significant changes to the Property, adjacent properties, and general vicinity were observed since

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Table 1 – Aerial Photograph and Map Review

Date	Reference	Observations
		the 1966 Sanborn maps with the exception of: Located south adjacent beyond West Santa Barbara Avenue was a gas station (504 West Santa Barbara Avenue). Located west adjacent beyond South Vermont Avenue was one gas station and auto repair (1000 West 39th Place), the gas station and auto repair at 3945-3949 South Vermont Avenue was no longer present.
1970 Photorevised 1972 1976 Photorevised 1981 1989	Sanborn Maps USGS Maps Aerial Photographs	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1968 Sanborn maps with the exception of: Located south adjacent beyond West Santa Barbara Avenue at 800 West Santa Barbara Avenue/4013 South Hoover Street, the property was redeveloped from a gas station to a commercial property. Located east adjacent beyond South Figueroa Street, a gas station was no longer depicted at 3900 South Figueroa Street.
1994	Aerial Photograph USGS Map	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1986 aerial photograph with the exception of: **Current Parking Lots 2 and 3:** More of Lot 2 was redeveloped as the parking lot; however, a residential property was still present fronting onto South Vermont Avenue. Located south beyond Martin Luther King Jr. Boulevard (formerly West Santa Barbara Avenue), were residential properties, and parking lots.
2002 2005	Aerial Photographs	No significant changes to the Property, adjacent properties, and general vicinity were observed since the 1994 aerial photograph with the exception of: **Current Parking Lots 2 and 3:** This entire area was developed as parking lots. No residential structures were present. Located north of Parking Lots 2 and 3 of the Property was a park. Located east adjacent beyond South Figueroa Street were parking lots and two commercial properties. Located southeast adjacent to the Property, beyond the intersection of South Figueroa Street and Martin Luther King Jr. Boulevard was a gas station.

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4.2.2 Building Permit Review

Available building permits for 3804-3836 and 3906-3950 South Vermont Avenue; 3801-3835 and 3911-3986 South Menlo Avenue; 901-915 and 920-936 West 39th Street; 841, 851, and 875 West Martin Luther King Boulevard; 511-829 West Santa Barbara Avenue; and 3800, 3911, 3939, 3995, and 3995 South Figueroa Street were reviewed at the City of Los Angeles, Department of Building & Safety. A chronological summary is provided below.

Table 2 – Building Permit Summary

Date	Address	Description of Work
May 15, 1905	922 39th Street	A permit was issued to construct a new dwelling.
February 2, 1906	915 West 39th Street	A permit was issued to build a residence.
September 11, 1908	3925 Menlo Avenue	A permit was issued to construct a new dwelling.
March 23, 1909	3926 South Vermont Avenue	A permit was issued to construct a new office and shop.
September 27, 1909	3926 South Vermont Avenue	A permit to construct a dwelling was issued.
June 29 and December 2, 1910	3927 and 3929-3933 Menlo Avenue	Permits were issued to respective owners to construct residences.
March 8, 1912	3910 South Vermont Avenue	A permit was issued to build a “cleaning room”.
March 29, 1913	3935 Menlo Avenue	A permit was issued to build a store (H.H. Goods).
June 3, 1914	3925 Menlo Avenue	A permit was issued to build a dwelling.
July 24, 1914	915 39th Street	A permit was issued to construct a church.
August 27 and September 30, 1919	531-875 West Santa Barbara Avenue	Permits to construct stock barns and house barns were issued to the owner, Los Angeles Livestock Show, to exhibit livestock. No other buildings were reported on the lot.
October 4, 1920	911 West 39th Street	A permit was issued to build a residence.
February 25, 1921	3928 South Vermont	A permit was issued to build a shoe shop.
March 10 and April 4, 1921	915 and 922 39th Street	Permits were issued to build residences.
January 23, 1922	930, 932, 934, and 936 West 39th Street	A permit was issued to build a store.
June 20, July 18, August 2, 8, 11, 17, and 18, September 18, and December 1 and 6, 1922	517-523, 623-629, 645-651 and 813-829 West Santa Barbara Avenue and 3917 Menlo Avenue	Permits to construct new dwellings or private garages were issued for these addresses.

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Table 2 – Building Permit Summary

Date	Address	Description of Work
January 12 and 26, April 10 and 14, and May 22, 23, and 29, June 7, and August 16, 1923	525, 541-555, 601, 609, 611, 615-621, 631-633, 711-723 and 821-823 West Santa Barbara Avenue	Permits to construct new dwellings, flats, bungalows, or private garages were issued for these addresses.
February 2, and April 4, 1923	3920½ and 3934 South Vermont Avenue	A permit was issued to build new offices, one of which was to be a real estate office.
December 11, 1923	515½ West Santa Barbara Avenue	A permit was issued to build a new machine and blacksmith shop.
February 26, 1924	603 and 609 ½ West Santa Barbara Avenue	Permits were issued to construct new rental residences.
December 23, 1924	3804 and 3806 South Vermont Avenue	A permit was issued to construct two new stores.
May 1, 1925	907 and 909 West 39th Street	A permit was issued to construct two dwellings.
September 29, 1925	603½, 605, 607, and 609 West Santa Barbara Avenue	A permit was issued to construct a new apartment.
September 4, 1925	920-928 West 39th Street	A permit was issued to build three store rooms and two flats above.
June 3, 1929	3937 Menlo Avenue	A permit was issued to United Tent & Awning Co. to build bleachers.
August 8, 1930	511 West Santa Barbara Avenue	A permit was issued for the new construction of a store.
July 29, 1931	3836 South Vermont Avenue	A permit for a new gas service station was issued. No other buildings were present on the lot.
July 5, 1932	3831 Menlo Avenue	A permit was issued to demolish and remove a dwelling from the premises.
June 20, 1938	3928 South Vermont Avenue	A permit was issued to demolish a store, the Vermont Mattress Co.
December 9, 1941	3829,¼, ½, ¾, 3831, ¼, ½, and ¾ Menlo Avenue	A permit was issued to build an apartment and garage.
August 2, 1951	3830, 3906, 3926, and 3920 South Vermont Avenue	Permits were issued to demolish dwellings and grade the lot. The owners were listed as the State of California.
September 28, 1951	3925 Menlo Avenue	A permit and certificate of occupancy was issued for the relocation of the dwelling at this address.
October 3, 4, 11, and 17, 1951	3931 South Vermont Avenue, 930-934 West 39th Street, 3912 South Vermont Avenue, and 3923 Menlo Avenue	Permits and certificate of occupancies were issued for the relocation of the dwellings and office at these addresses.
1959-1961	3911-3939 South Figueroa Street	Permits were issued to construct temporary structures or alterations for event use at the Coliseum or

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Table 2 – Building Permit Summary

Date	Address	Description of Work
		Sports Arena.
June 10, 1965	901 West 39th Street	Demolish a hot dog stand and cap the sewer.

4.2.3 City Directories

A city directory search was completed on the Property by EDR. The complete city directory is provided in Appendix E, EDR-City Directory.

The Property was identified under the following listings in the directories published during the years indicated:

- **3911 South Figueroa Street** was identified as the Los Angeles Coliseum from 1929 to 2006.

- **3915 South Figueroa Street** was identified as the City of Los Angeles Recreation and Parks South District Office in 1951.

- **3939 South Figueroa Street** was identified as the Los Angeles Sports Arena from 1962 to 1990. In 1929, this address was identified as a residence.

The east adjacent 3900 South Figueroa Street was identified as a used car sales lot in 1937 to 1951 and as Chevron gas station in 1967.

Other adjacent properties were identified as either residential or commercial uses in the city directories from 1924 to 2000.

4.2.4 Data Failure

Historical information regarding the Property was dated as early as 1900, which depicted a portion of the Property developed with residential and agricultural structures. Therefore, a historical data failure occurred during this assessment. It was deemed unlikely that additional ASTM sources would yield significant information.

4.2.5 Summary of Historical Property Use

Current Parking Lots 2 and 3: As early as 1900, the northwest portion of the Property was partially developed for residential and/or agricultural purposes. As early as 1909, commercial structures were introduced into this portion of the Property. These lots are located between South Vermont Avenue and Agricultural Avenue (later renamed Menlo Avenue and again renamed Bill Robertson Lane), divided by West 39th Street, and

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extending into Leighton Avenue. In 1922, a "dyeing and cleaning" shop was depicted at 3910-3912 South Vermont Avenue. No agriculturally related structures were observed at this portion of the Property by 1928. A gas station was constructed at 3836 South Vermont Avenue in 1931 and present until as late as 1950. Also identified in 1950, was an auto painting business (3820 South Vermont Avenue), auto sales lot (3920-3922 South Vermont Avenue). From 1951 to 1956, the majority of the structures had been demolished or removed. The area was graded and redeveloped as parking lots; with the exception of a few multi-tenant residential properties and a restaurant. Only one residential property was present in 1994, while the remaining area was used as parking lots; however, by 2002, the area was fully dedicated as parking lots.

Current Coliseum area, Parking Lots 4, 5, and 6: As early as 1907, the central portion of the Property was depicted as the Agricultural Park with race and driving courses and associated structures e.g. Exhibition Pavilion, corrals, clubhouse, grand stand, etc.). Construction on the Los Angeles Memorial Coliseum began in 1921, which replaced the Agricultural Park. The Coliseum was completed with associated structures (ticket offices, water closets, athletic buildings, etc.) and opened in 1923. A lawn area and the Los Angeles Park Department – identified with gasoline storage – were present east of the Coliseum from as early as 1928 through to 1956. By 1958, construction began on the Los Angeles Sports Arena and was completed in 1959.

The southern portion of the Property, which bordered on West Santa Barbara Avenue (currently known as Martin Luther King Jr. Boulevard) had no use indicated until 1919, at which time stock barns and house barns were constructed for the Los Angeles Livestock Show. This area was redeveloped in the 1920s as primarily residential properties but with a few commercial properties as well. In 1923, a blacksmith and machine shop was constructed at 515½ West Santa Barbara Avenue. An auto repair facility was depicted at 739 West Santa Barbara Avenue of the Property from 1950 though to 1959. By 1960, this area was fully redeveloped as parking lots.

4.2.6 Summary of Past Uses of Adjoining Properties

In the early 1900s, the adjacent properties were depicted as land with no mapped use, residential properties, streets (Agricultural Avenue, West 46th Street, South Vermont Avenue), parts of the Agricultural Park, and a few industrial properties (Pacific Light and Power Company Substation, Agricultural Park with a gasoline engine, an electric car right-of-way, the Los Angeles Railway Company's Old Car Barn (noted for storage and float making) and the Railway's Power House University Substation with transformer room and battery room).

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By the 1920s, the adjacent properties were observed as vacant lots, residential properties, streets (Menlo Avenue, West 39th Street, Leighton Avenue, South Vermont Avenue, South Figueroa Street, and West Santa Barbara Avenue), commercial properties including five gas stations and one auto repair property, the Los Angeles Museum, State Exposition Building, and Los Angeles Railway Corporation Substation and regulator house.

From 1950 to 1970, gas stations, auto repair (including auto painting) were present along with auto sales lots, the Los Angeles Swimming Stadium, a printing shop, and a drycleaner were depicted as adjacent to the Property in addition to residential and commercial properties and Los Angeles Museum. At most, four gas stations were located adjacent to the Property and at least two gas stations were adjacent to the Property during this period. In 1954, the Museum of Science and Industry of California was north adjacent instead of the State Exposition Building. Between 1976 and 1989, only one gas station was observed (south adjacent). By 2002, one gas station was southeast adjacent to the Property.

4.2.7 Summary of Past Uses of the Surrounding Area

In the early 1900s, the general vicinity of the Property consisted of residential properties, agricultural structures, lots with no mapped use, and a few industrial properties. From the 1920s, the Property's surrounding area was already densely developed and agricultural uses were no longer observed. The area consisted primarily of residential and commercial structures. Interstate 110 was present in the eastern vicinity of the Property by 1965.

4.3 Results of Environmental Records Sources Review

An EDR report of Standard Environmental Record Sources (Records) was prepared specifically for the Property. The search included queries to the following databases for cases within specified ASTM search distances. A copy of the EDR Radius Map Report has been provided in Appendix F.

4.3.1 Property Listings

The Property was identified on the following databases in the EDR report:

LA Exposition Park, 3911 South Figueroa Street (EDR Map ID No. A1)

RCRA Generators List

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The EPA's RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. This is a database which lists facilities which generate, store, transport, treat, or dispose of hazardous waste. Small quantity facilities generate less than 1,000 kilograms per month of non-acutely hazardous waste. Large quantity facilities generated at least 1,000 kilograms per month of non-acutely hazardous waste or one kilogram per month of acutely hazardous waste.

The Property facility was identified as a small quantity generator and handler of hazardous materials. No violations were reported.

Facility Index System/Facility Registry System (FINDS)
FINDS contains both facility information and 'pointers' to other sources that contain more detail.

The pertinent environmental activity identified at the Property was RCRAInfo.

City of LA General Services, 3911 South Figueroa Street (EDR Map ID No. A2)

Facility and Manifest Data (HAZNET)
Database of sites which submit a hazardous waste manifest to DTSC.

The waste generated and disposed of at this Property facility was reported as 0.06 tons of other inorganic solid waste.

Los Angeles Memorial Coliseum, 3911 South Figueroa Street (EDR Map ID No. A3)

FIFRA/ TSCA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) Tracking System – (FTTS) FIFRA
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

This Property facility was investigated by the "state" on January 27, 1988 for Section 6 PCB. No additional information was provided under this database listing.

FIFRA/TSCA Tracking System Administrative Case Listing (HIST FTTS)
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

The database stated that an investigation was performed at the Property for Section 6 PCB. No violations were reported.

Facility Index System/Facility Registry System (FINDS)
The pertinent environmental activity identified at the Property was National Compliance Data Base (NCDB).

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Choy Helen, 3912 South Vermont Avenue (EDR Map ID No. B4)

EDR Proprietary Historic Dry Cleaners (EDR Historical Cleaners)
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

The historical site was listed as a oriental laundry identified as Shon Sam in 1929, a clothes pressers and cleaners known as Shon Saml in 1933 and 1937, and again as an oriental laundry in 1942 known as Choy Helen.

Fong Tom, 3902 South Vermont Avenue (EDR Map ID No. C5)

EDR Proprietary Historic Dry Cleaners (EDR Historical Cleaners)
The historical site was listed as a oriental laundry identified as Fong Tom in 1942.

Burrhart Arnold, 3886 South Vermont Avenue (EDR Map ID No. C7)

EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

This property was identified as a gasoline and oil service station in 1937.

Burghart Arnold, 3836 South Vermont Avenue (EDR Map ID No. D8)

EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
This property was identified as a gasoline and oil service station in 1933 and 1942.

4.3.2 Adjoining Properties

The following adjoining properties were identified in the EDR report:

- Black Son, 4001 South Hoover Street (EDR Map ID No. 6). This site is located south adjacent of the Property and was identified on the following database.

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This adjacent property was identified as a service station as early as 1924 and later a service station with auto repair from 1929 to 1933.

- ARCO #3000, 504 Martin Luther King Blvd (EDR Map ID No. 9). This site was located as historically south adjacent to the Property and was identified on the following databases:

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Hazardous Waste & Substances Sites List (HIST CORTESE)
Database of sites which have been identified as leaking underground storage tank sites, landfills, or Cal-Sites.

No information was provided under this listing.

Leaking underground Storage Tanks (LUST) Sites
An inventory of reported leaking underground storage tank incidents reported to the state.

Gasoline reportedly leaked from a UST on May 6, 1991 at this location which affected soil. A preliminary site assessment began on May 10, 1991. The case was closed by August 21, 1996.

- Lee W R, 3998 South Figueroa Street (EDR Map ID No. E10). This site was historically east adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This adjacent property was identified as a service station in 1924.

- Atlantic Richfield Co., Sohns Arco 3000, 504 West Martin Luther King Blvd (EDR Map ID No. E12). This site was historically south adjacent to the Property and was identified on the following database:

  Historical and Active Underground Storage Tank (UST) Sites
  An inventory of USTs identified on the following databases: Facility Inventory Database (CA FID UST); UST; Hazardous Substance Storage Container Database (HIST UST); and Statewide Environmental Evaluation and Planning System (SWEEPS UST).

  CA FID UST – The status was reported as inactive. No additional information was provided under this listing.
  SWEEPS UST – No information was provided under this listing.

- Coleman G W, 3941 South Vermont Avenue (EDR Map ID No. B14). This site was historically west adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This adjacent property was identified as a gasoline and oil service station in 1937.

- Chevron SS# 20-7494, 4000 South Figueroa Street (EDR Map ID No. E15, E16). This site is southeast adjacent to the Property and was identified on the following database:

  Historical and Active Underground Storage Tank (UST) Sites
  UST –No information was provided under this listing.

  RCRA Generators List

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This site was listed as a large quantity generator and handler of hazardous materials. The site was historically a small quantity generator. The hazardous waste generated from this site were listed as ignitable hazardous wastes and benzene. No violations were reported.

Facility Index System/Facility Registry System (FINDS)
The pertinent environmental activity identified at this site was California Hazardous Waste Tracking System – Datamart (HWTS-DATAMART) and RCRAInfo.

Facility and Manifest Data (HAZNET)
The waste generated at this site was reported as other organic solids, unspecified oil-containing waste, unspecified organic liquid mixture, and other organic solids which were reportedly disposed of by "metals recovery including retoring, smelting, chemicals, etc" or "storage, bulking, and/or transfer off-site – no treatment/recovery" in quantities up to 0.17 tons.

- Uhel Dean & Stanley Soles, 3929 South Vermont Avenue (EDR Map ID No. B17). This site is west adjacent to the Property and was identified on the following databases:

Historical and Active Underground Storage Tank (UST) Sites
CA FID UST –No information was provided under this listing, except to report the status as active.
SWEEPS UST – No information was provided under this listing.

Facility and Manifest Data (HAZNET)
The waste generated at this site was reported as waste oil and mixed oil up to 12.3015 tons.

- Coon W E, 3949 South Vermont Avenue (EDR Map ID No. F18). This site is west adjacent to the Property and was identified on the following database:

EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
This adjacent property was identified as a service station as early as 1924 to 1942.

- Lew Sing, 3827 South Vermont Avenue (EDR Map ID No. D19). This site is west adjacent to the Property and was identified on the following database:

EDR Proprietary Historic Dry Cleaners (EDR Historical Cleaners)
This site was identified as a clothes presser and cleaner in 1933 and a Chinese laundry in 1937.

- Van Tress Hall, 3821 South Vermont Avenue (EDR Map ID No. D20). This site is west adjacent to the Property and was identified on the following database:

EDR Proprietary Historic Dry Cleaners (EDR Historical Cleaners)
This site was identified as a clothes presser, cleaner, and dyer in 1934 and a cleaner and dyer in 1929.

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- Gibson Thos, 3799 South Vermont Avenue (EDR Map ID No. D21). This site is northwest adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This site was identified as a service station as early as 1924 to 1929.

- Madison R P, 1009 West 38th Street (EDR Map ID No. D22). This site is northwest adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Dry Cleaners (EDR Historical Cleaners)
  This site was identified as a clothes pressers and cleaners in 1933.

- Soles Dean, 1015 39th Place (EDR Map ID No. B23). This site is west adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This site was identified as a automobile repair in 1942.

- Bartels C P/Bartello Chas P, 1015 West 39th Place (EDR Map ID No. B24 and C25). This site is west adjacent to the Property and was identified on the following database:

  EDR Proprietary Historic Gas Stations (EDR Historical Auto Stations)
  This site was identified as a automobile repair from 1924 to 1933.

- Natural History Museum LA Co, 900 Exposition Blvd (EDR Map ID No. J33, J35). This site is north adjacent to the Property and was identified on the following databases:

  RCRA Generators List
  This site was listed as a large quantity generator and handler of hazardous materials. The hazardous waste generated from this site were listed as ignitable hazardous wastes, corrosive hazardous waste, barium, chloroform, 1,4-dichlorobenzene, spent non-halogenated solvents, hydrogen phosphide, 1,4-dichlorobenzene, formaldehyde, 1-methylbutadiene, phenol, reactive hazardous waste, and potassium cyanide. No violations were reported.

  Facility Index System/Facility Registry System (FINDS)
  The pertinent environmental activity identified at this site was RCRAInfo.

  Facility and Manifest Data (HAZNET)
  The waste generated at this site was reported as unspecified aqueous solution, other inorganic solid waste, unspecified organic liquid mixture, unspecified solvent mixture. The disposal methods were listed as “incineration, “storage, bulking, and/or transfer off-site – no treatment/recovery” and “fuel blending prior to energy recovery at another site.

  NPDES Permits Listing (NPDES)
  A listing of NPDES permits, including stormwater.

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The facility has an active construction NPDES permit.

Historical and Active Underground Storage Tank (UST) Sites
HIST UST – One 1,000-gallon UST for storage of diesel fuel was reported.

- County of Los Angeles ISD, 900 Exposition Blvd (EDR Map ID No. J34). This site is north adjacent to the Property and was identified on the following databases:

  NPDES Permits Listing (NPDES)
  The facility was formerly permitted for construction NPDES permit that has since been terminated.

  Historical and Active Underground Storage Tank (UST) Sites
  CA FID UST –No information was provided under this listing, except to report the status as active.
  SWEEPS UST – The facility was registered with a 1,000-gallon diesel UST.

  Facility and Manifest Data (HAZNET)
  The waste generated at this site was reported as asbestos containing waste, waste oil and mixed oil, polychlorinated biphenyls and material containing PCBs. The quantities of the waste disposed ranged from 0.18 to 2.09.

- Bong Mo Jung, 504 West Santa Barbara Avenue (EDR Map ID No. 41). This site is south adjacent to the Property and was identified on the following database:

  Historical and Active Underground Storage Tank (UST) Sites
  HIST UST –This property was registered with five USTs for product and waste oil storage installed in 1967. Five USTs were reported with 6,000-gallon capacities and the waste oil tank had a capacity of 280-gallons.

- Armory, 700 State Drive (EDR Map ID No. L45). This site was identified as north adjacent to the Property and was identified on the following databases:

  RCRA Generators List
  This site was listed as a small quantity generator and handler of hazardous materials. The facility was identified as a historical large quantity generator of hazardous materials. No violations were reported.

  Facility Index System/Facility Registry System (FINDS)
  The pertinent environmental activity identified at this site was RCRAInfo, HWTS-DATAMART, and NCDB.

- California Museum of Science and Industry, 700 State Drive (EDR Map ID No. L46, L48). This site was identified as north adjacent to the Property and was identified on the following databases:

  Historical and Active Underground Storage Tank (UST) Sites

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HIST UST –This property was registered with one tank for product storage. No additional information was provided under this listing.
SWEEPS UST – One UST for unleaded gasoline was listed in this database for this property.

- LAUSD – Manual Arts New ES#1, 700 State Drive (EDR Map ID No. L47). This site was identified as north adjacent to the Property and was identified on the following databases:

  RCRA Generators List
  This site was listed as a small quantity generator and handler of hazardous materials. The facility was identified as a historical large quantity generator of hazardous materials in 2004. The facility has produced lead waste. No violations were reported.

- California Science Center, 700 State Drive (EDR Map ID No. L49). This site was identified as north adjacent to the Property and was identified on the following databases:

  Historical and Active Underground Storage Tank (UST) Sites
  CA FID UST –This property was registered as an active UST site.

  Facility and Manifest Data (HAZNET)
  The waste generated at this site was reported as aqueous solution with total organic residues less than 10 percent. The listed disposal method was "other recovery of reclamation for reuse including acid regeneration, organics recovery etc."

4.3.3 Other Off-site Locations of Concern

Other off-site locations of concern identified by EDR within a maximum one-mile radius from the Property included registered UST sites, sites with a recorded release (SLIC, LUST, HIST CORTESE), hazardous waste generators, permitted hazardous materials handlers, sites under investigation by the DTSC (ENVIROSTOR), EDR Historical Auto Stations, EDR Historical Cleaners and a recycling facility.

The potential for environmental concern to the Property from these off-site locations of concern appear to be low due to one or more of the following: type of regulatory listing; type of resource (soil) affected, location with respect to the direction of regional groundwater, distance from the Property; status of the case; remedial efforts being directed by a regulatory agency; and/or potential responsible parties have been identified.

4.3.4 Orphan Listings

The EDR database report identified 20 orphan listings. The majority locations of sites that were identified by address were found to be in the general vicinity of the Property; however, due to distance, location with

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respect to the direction of regional groundwater, identification of a responsible party, remedial efforts being directed by a regulatory agency, and/or type of listing were determined to have a low potential for environmental concern to the Property. Other sites were determined to be outside of the Property's general vicinity.

Other orphan sites were identified only by street name or site description. These street names or site descriptions were found in the general vicinity of the Property; however, the specific site locations could not be determined. These orphan sites appeared to have a low potential for environmental concern to the Property due to one or more of the following: type of regulatory listing; remedial efforts being directed by a regulatory agency; and distance from the Property.

4.4 Additional Environmental Record Sources

4.4.1 California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances

There was no information pertaining to the Property addresses 3911 and 3939 South Figueroa Street, 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue, and 921, 923, 926, and 928 West 39th Street on file with the DTSC.

4.4.2 Cal/EPA, Los Angeles Regional Water Quality Control Board (RWQCB)

There was no information pertaining to the Property addresses 3911 and 3939 South Figueroa Street, 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue, and 921, 923, 926, and 928 West 39th Street on file with the RWQCB.

4.4.3 California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

Wildcat Draft Map W1-5, Los Angeles And Orange Counties, May 26, 2010 was reviewed. No oil or gas wells are located on the Property or adjacent properties.

4.4.4 California Department of Forestry and Fire Protection (CDP), Office of State Fire Marshall (OSFM), Pipeline Safety Division

There are no OSFM jurisdictional pipelines located within a ½-mile radius of the Property.

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4.4.5 South Coast Air Quality Management District (SCAQMD)

There was no information pertaining to the Property addresses 729 West Santa Barbara Avenue; 3995 and 3999 South Figueroa Street; 3820, 3820½, 3836, 3910, and 3912 South Vermont Avenue; and 921, 923, 926, and 928 West 39th Street on file with the SCAQMD.

Files that were provided to Converse Consultants by the SCAQMD are summarized below. Copies of these documents have been provided in Appendix G.

A Facility Equipment List Report was filed for 3911 South Figueroa Street for the LA Memorial Coliseum on July 25, 2001. In this report, it stated that an inspection was performed on June 28, 2001. The inspector commented that the facility did not have any permits and has several pieces of "219" exempt equipment including a 275 MBTU boiler for the locker rooms, 2 HP fire pumps, and 15.5 HP portable lighting. According to the inspector, the input rating for the Olympic Torch is unknown and could not be accessed. The facility also maintains three emergency generators (500 kilowatts and 600 kilowatts) located at the perimeter of tunnels 1, 16, and 28. The engines were found to be exempt for emissions requirements based on operation records of less than 200 hours per year. A charbroiler was also identified in the food court building. As a result of this inspection, a notice of violation was issued for the installation and operation of three internal combustion engines. Also a notice to comply was issued to file the charbroiler.

A compliance inspection was conducted on November 13, 2008, which identified the presence and use of three diesel generators, one charbroiler, and two boilers. According to the facility equipment list report, the charbroiler and generators were permitted as of August 16, 2001 and October 18, 2002, respectively. The engine operation logs and engine timing were inspected, of the three generators, only one was found to exceed the 20 hour limit of Rule 1470 for testing and maintenance limit for a calendar year. A notice of violation was issued for violating this rule. A notice to comply was issued to retrofit/replace two Lochinivar boilers, based on the presumed manufacturing date of 1993 and the advised 15 year life span to meet current nitrogen oxide emissions or low therm exemption. On October 16, 2009, a follow-up inspection was conducted and it was noted that the facility installed gas meters to prove low therm usage exemption. The facility was advised to record the monthly readings to prove exemption.

A Facility Equipment List Report for 3939 South Figueroa Street refer an inspection done on June 29, 2000 for the three emergency generators at

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the LA Sports Arena. The inspector noted that the inspections, adjustments and certifications were performed every two years, test runs were performed monthly at 30 minutes. No enforcement action was taken; however, equipment on permits D41540 and D41541 were removed (inactivated permits on two emergency generators).

Later an inspection on June 28, 2001 found that two unpermitted boilers were in use. Therefore, a notice of violation was issued for failure to obtain a permit for the boilers and a notice to comply was issued to provide tune up and heat input records.

A recent compliance inspection, on November 13, 2008, found that the LA Sports Arena operated two permitted boilers and one permitted diesel generator. Both boilers were found to operate under their compliance plan and had individual gas meters. However, no gas usage log or tune-up records were available. The diesel generator with an engine operation log was reviewed, had operated less than 20 hours for testing and maintenance, ignition timing inspected and adjusted yearly as maintenance, and all maintenance records were on file. Therefore, a notice to comply was issued to provide gas usage records and tune-up records for 2006 and 2007. In October of 2009, the facility personnel provided the SCAQMD with copies of the gas usage records and found that the facility was operating in compliance.

A Notice of Permit Reissuance from the SCAQMD included the reissuing of a Permit to Operate a diesel-powered internal combustion engine in 2007 and a copy of the permit in 2002.

4.4.6 Los Angeles County, Department of Health Services (DHS), Public Health Investigation

There was no information pertaining to the Property addresses 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue, and 921, 923, 926, and 928 West 39th Street on file with the DHS.

Converse is still awaiting a response from the DHS pertaining to the addresses 3911 and 3939 South Figueroa Street.

4.4.7 City of Los Angeles, Department of Public Works (DPW), Bureau of Sanitation, Industrial Waste Management Division (IWMD)

There was no information pertaining to the Property addresses 3911 South Figueroa Street, 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue, and 921, 923, 926, and 928 West 39th Street with the IWMD.

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A permit was issued for 3939 South Figueroa Street, which was identified as the City of Los Angeles' Sports Arena. The permit application was filed on May 28, 1959. The information sheet indicated that the Sports Arena was connected to the public sewer system and operated evaporator condensers, a 1,000-gallon grease interceptor, and cooling tower. Copies of these documents have been provided in Appendix G.

4.4.8 City of Los Angeles Fire Department (LAFD), Division of Fire Prevention

There was no information pertaining to the Property addresses 3911 and 3939 South Figueroa Street, 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue, and 921, 923, 926, and 928 West 39th Street with the LAFD Division of Fire Prevention.

4.4.9 City of Los Angeles Fire Department (LAFD), Hazardous Materials Records

There was no information pertaining to the Property addresses 729 West Santa Barbara Avenue, 3820, 3820½, 3836, 3910, 3912 South Vermont Avenue; 650, 700, and 711 West Exposition Park Drive; 3995 and 3999 South Figueroa Street; 3981 South Hoover Street; 3960, 3968, and 3986 South Bill Robertson Lane; 511 West Martin Luther King Jr. Boulevard; and 921, 923, 926, and 928 West 39th Street with the LAFD Hazardous Materials Records.

The only Property addresses searched which had available LAFD Hazardous Materials Records were 3911 and 3939 South Figueroa Street. These records have been summarized below and copies have been provided in Appendix G.

Business information documents and inventories for the Los Angeles Memorial Coliseum at 3911 South Figueroa dated back as early as 1991. The facility number for the Coliseum was recorded as FA0021432. The business information documents identified contact information, data entry forms, emergency response plan, and a hazardous materials disclosure application.

In an inventory from 1991, the facility was reported with fertilizer (up to 1,200 gallons stored in an aboveground storage tank), acetylene, propane, gasoline (up to 30 gallons stored in metal containers), diesel (up to 200 gallons stored in AST or 55-gallon drum), motor oil (up to 110 gallons stored in drums), oxygen, and one 1,000-gallon UST for gasoline storage. In a 1993 inventory, the facility inactivated permits for the fertilizer, acetylene, propane, gasoline, diesel, motor oil, and oxygen.

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Only the gasoline UST was permitted in 1993, 1995, and 2001 according to these inventories.

The LAFD issued a Hazardous Materials Violation on March 18, 1996 to the Coliseum. The Coliseum was ordered to provide a hazardous materials business plan, emergency response plan, site map, maintain a copy of the business plan on the premises, and maintain copies of MSDS.

The most recent inventory, permitted as of July 1, 2011, reported the storage of gasoline (up to 1,000-gallons) and an inspection date June 15, 2011. This inventory reports that acetylene, diesel, fertilizer, gasoline, motor oil, oxygen, and propane were inactivated for this facility address as of March 4, 1993.

Under the address 3939 South Figueroa Street, the Los Angeles Sports Arena, copies of hazardous materials inventories, correspondence, data entry instruction forms, hazardous materials disclosure application,

Hazardous inventories from 1991 and 1993 identified the Sports Arena as storing chlorine tablets, propane, acetylene, zeolite, oxygen, glycol (up to 506 gallons stored in an AST), Freon (up to 400 pounds stored in cylinders), and corrosion inhibitor. By 1995, the inventory was reduced to chlorine tablets, propane, glycol, and Freon. In 2001, 2005, and 2011, the registered hazardous materials storage consisted only of Freon, glycol, and propane.

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5.0 Property Reconnaissance

5.1 Methodology

On December 19 and 20, 2011, CONVERSE visited the Property to evaluate present use and to identify observable environmental conditions at the Property. Our methodology involved walking the perimeters, center lines, and accessible interior areas of the buildings while noting observed evidence of present and potential environmental concerns.

A field-generated map is provided in Appendix B. Pertinent Property photographs are provided in Appendix C.

5.2 Limiting Conditions

CONVERSE'S findings are based on the Property conditions observed on Monday and Tuesday, December 19 and 20, 2011. Converse assessed the parking lots, storage areas, heating, electrical, and mechanical equipment areas, kitchen, and office spaces of the LA Sports Arena and the Los Angeles Coliseum.

5.3 Interior Observations of Property

During our Property visit, CONVERSE made the following observations of the interior of the Property's buildings:

Table 3 – Interior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Hazardous Substances & Petroleum Products:	☒	☐	**Coliseum and Sports Arena**: Five- and one-gallon containers of water-based paint were observed in several areas of the Coliseum (seven pallets in the tunnel storage, paint storage room accessed through the underground tunnel, storage room between Gates 28 and 29) and Sports Arena (three pallets in storage area underneath arena, paint storage room adjacent to the refrigeration machinery room). No significant staining was observed on or around these paint containers.

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Table 3 – Interior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
			Other miscellaneous storage of chemicals that were observed in storage areas of the Coliseum and Sports Arena included WD-40, concrete masonry sealer, Select-Kil, solvent degreaser, aerosols, paint, paint and varnish remover, paint epoxy, floor stripper, contact cement, glass frosting, etching, resurfacer, polyurethane, acrylic urethane, marking chalk, non-detergent, motor oil, propane, containers for storage of diesel or gasoline, and cleaning supplies. **Coliseum:** Two 55-gallon drums, one labeled as "dyed diesel fuel", in the observed on a wooden pallet in the Coliseum's tunnel storage area. The drums appeared to be at least partially full. The "dyed diesel fuel" drum was observed stained; however, no stains or leaks were observed on the ground surface surrounding the drums. **Sports Arena:** Located in the refrigeration machinery room were various containers of microbicide, refrigeration oil, industrial gear oil, compressor oil, and hydraulic oil in poly or metal one- and five-gallon containers. No stains or leaks were observed on or around these containers. Drums and restrained cylinders of refrigerant chemicals containing Freons (Refrigerant 113, Freon 11, Genetron 113, Racon 113, La Roche 11, Isotron 11, Genetron 22) were observed in the refrigeration machinery room. No stains, leaks, or odors were encountered in this room. A 55-gallon metal drum was observed for storage of broken lights with trace amounts of mercury stored in a hallway adjacent to the refrigeration

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Table 3 – Interior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
			machinery room. A small poly container for storage of diesel was observed in the emergency generator room. The container was observed on a plastic liner and no stains or leaks were observed. However, surficial oil stains were observed on the concrete ground surface underlying the emergency generator.
Storage Tanks & Related Equipment:	☒	☐	An aboveground storage tank was observed in a storage room via the Coliseum tunnel that is used to store a fertilizer-water solution used for the field.
Odors:	☐	☒	
Standing Surface Water or Other Pools of Liquid:	☐	☒	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:	☒	☐	See **Hazardous Substances & Petroleum Products**.
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):	☒	☐	Dry-type transformers were observed in electrical rooms of the Sports Arena. No stains or leaks were observed on or around these transformers.
Heating/Cooling System:	☒	☐	Heating and cooling system were observed in the refrigeration machinery room and water boilers were observed in storage rooms in the Sports Arena. No stains or leaks were observed on or around the machinery.
Stains or Corrosion on Floors, Walls, or Ceilings:	☒	☐	Surficial oil stains were observed on the concrete ground surface underlying the emergency generator in the Sports Arena.
Drains and Sumps:	☐	☒	

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5.4 Exterior Observations of Property

During our Property visit, CONVERSE made the following observations of the exterior of the Property:

Table 4 – Exterior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Hazardous Substances & Petroleum Products:	☒	☐	A 100-lb. liquid propane gas (LPG) tank was observed in an exterior storage area north adjacent to the VIP Lot and west adjacent to the Sports Arena. Empty containers for gasoline or diesel and propane storage were observed in a gated nook at underground entrance of the Sports Arena (via the tunnel).
Storage Tanks & Related Equipment:	☒	☐	See **Hazardous Substances & Petroleum Products**.
Odors:	☐	☒	
Standing Surface Water or Other Pools of Liquid:	☐	☒	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:	☒	☐	A 55-gallon drum labled as "dyed diesel fuel" one at a gated area adjacent to a storage warehouse and the other in the Coliseum's tunnel storage area. Both drums were observed on wooden pallets and appeared to be at least partially full. The drum located in the tunnel was stained; however, no stains or leaks were observed on the ground surfaces surrounding the drums.
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):	☒	☐	Three gated DPW transformer substations are located around the Coliseum. Converse viewed the substations from the exterior vantage points. No stains or leaks were observed on or around the equipment. One transformer substation was observed with a sign stating that No PCBs were present in the substation. Each substation is also equipped with an emergency diesel-fueled generator.

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Table 4 – Exterior Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
			Each generator has a capacity of 40 to 50-gallon diesel. The generators are used for emergency services only.
Pits, Ponds, or Lagoons:	☐	☒	
Stained Soil or Pavement:	☐	☒	
Stressed Vegetation (other than from insufficient water):	☐	☒	
Evidence of Mounds, Depressions or Filled or Graded Areas Suggesting Trash or Other Solid Waste Disposal:	☐	☒	
Waste Water or any discharge (including storm water) into a Drain, Ditch, or Stream on or Adjacent to the Property:	☐	☒	
Wells (active, inactive, or abandoned):	☐	☒	
Septic Systems or Cesspools:	☐	☒	
Prior Structures:	☐	☒	
Roads, Tracks, Railroad Tracks or Spurs:	☒	☐	The Property fronts onto North Coliseum Drive on the north, Martin Luther King Jr. Boulevard on the south, South Figueroa Street and Coliseum Drive on the east, and Bill Robertson Lane and South Vermont Avenue on the west. South Hoover Street also intersected the Property on the southern portion, which turns into Coliseum Drive.

In addition to the above items, CONVERSE also made the following observations:

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- Equipment storage for heating and ventiliation (a chiller, natural gas line) were located in a gated area on the Coliseum lot.

5.5 Current Uses of Adjoining Properties

Based on our research and observations during our Property visit, the Property is bordered by the following:

Table 5 – Adjoining Property Use

Direction	Current Development
North:	Exposition Park Drive, followed by a lawn with subterranean parking, the California Science Center (700 Exposition Park Drive), Museum of Science and Industry, the Natural History Museum of Los Angeles County (900 Exposition Boulevard), and Jesse Brewer Jr. Park.
Northeast:	Intersection of Exposition Park Drive and South Figueroa Street, followed by commercial properties, Chano's Drive In (3850 South Figueroa Street) and Figueroa Philly Cheese Steak (3844 South Figueroa Street).
Northwest:	South Vermont Avenue, followed by Exposition Park Family Services Center (3833 South Vermont Avenue).
South:	Soboroff Sports Field at Expo Center, Los Angeles Swimming Stadium, and West Martin Luther King Boulevard, followed by residential properties, a commercial property, a parking lot, and Broadway Federal Bank.
Southeast	Intersection of South Figueroa Street and West Martin Luther King Boulevard, followed by a McDonald's/Chevron service station (4000 Figueroa Street).
Southwest:	The following properties were southwest adjacent from various parts of the Property: • South Vermont Avenue and Leighton Avenue, followed by Jean Connection/MBJ Unlimited Inc. (3953 South Vermont Avenue) • Bill Robertson Lane, followed by Soboroff Sports Field at Expo Center • Los Angeles Swimming Stadium and Senior Center • West Martin Luther King Boulevard, followed by multi-family residential properties (800 Block of West Martin Luther King Boulevard)
East:	The following were observed east adjacent from various parts of the Property: • Exposition Park Drive, followed by a lawn with subterranean parking • South Figueroa Street, followed by parking lots and a multi-tenant commercial property (Exposition Park Plaza) occupied by: Subway, Check Cashing, Marines office, ice cream shop, dialysis center, and coin laundry facility.
West:	The following were observed west adjacent from various parts of the Property: • Los Angeles Swimming Stadium and Exposition Park Intergenerational Community Center

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Table 5 – Adjoining Property Use

Direction	Current Development
	• Bill Roberston Lane, followed by the Soboroff Sports Field at Expo Center • South Vermont Avenue, followed by auto sales lot with Roadside Insurance (3945 South Vermont Avenue), multi-tenant commercial building (Linda's Produce, Rosario's Beauty Salon, Botanica, Musa and April Essential Oils – 3937 South Vermont Avenue), J's 89¢ Discount and Furniture Store, D&J Automotive (3929 South Vermont Avenue), Vermont Senior Housing (3901 South Vermont Avenue)

5.6 Current Uses of Surrounding Area

Based on our research and observations during our Property visit, the surrounding area of the Property consists of residential and commercial properties, Natural History Museum, California Science Center, California African American Museum, Los Angeles Swimming Stadium, Interstate 110, and the University of Southern California campus. An Arco gas station was also observed in the northwest immediate vicinity of Property Parking Lot 6.

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6.0 Interviews

During the interviews, the owners and occupants were asked if they had any available documents that would be helpful. The documents that were requested are detailed in Section 3.1 of this report:

6.1 Property Owner

Mr. Robert Joyner, Property owner representative, stated that he has made serious attempts to clean out the storage areas of the Coliseum; which has included removing old containers of oil-based paint. He also noted that they try not to store hazardous materials where the public will be.

Mr. Joyner stated that the Los Angeles Memorial Coliseum does not prepare food on-site, prepared food is brought to the concession stands; therefore, there are no grease traps present at the Coliseum.

The Coliseum is also equipped with three DWP transformer substations, each with their own emergency diesel-powered generator. The diesel storage is limited to approximately 40 to 50 gallons for each generator. Mr. Joyner explained that they store only enough diesel to power emergency services such as lights and fire pumps for enough time to evacuate the public. A fourth emergency generator is located in the LA Sports Arena. Limited amounts of diesel are also stored in five-gallon containers in the field house for diesel-powered equipment (such as lawnmowers). Efforts have been made to limit the amount of hazardous materials on-site by only storing amounts in an "as-needed basis".

Accessed by the tunnel to the Coliseum, were several areas of storage or equipment rooms. One of these rooms has an aboveground storage tank used to mix water and fertilizer for the stadium's grass. Another storage area adjacent to the tunnel, was used for storage of equipment, sand, and several pallets full of water-based field paint.

It is Mr. Joyner's understanding that an underground storage tank was formerly operated at the Los Angeles Memorial Coliseum. He believes that this tank was abandoned in place in 1994. However, he could not provide Converse with any records pertaining to this UST.

The Sports Arena is also equipped with limited hazardous materials storage (propane, small amounts of gasoline, and pallets of paint) as accessed through the underground tunnel. Many drums of various Freon-containing chemicals were observed in the refrigeration machinery room.

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6.2 Tenant/Occupant

There are no tenants/occupants at the Property.

6.3 State or Local Government Officials

According to the LAFD Hazardous Material Records, there are files pertaining to the Property addresses 3911 and 3939 South Figueroa Street; however, despite several attempts to review these records by Converse, these files were not made available during the timeframe of this assessment.

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7.0 Findings

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- **Current Parking Lots 2 and 3:** As early as 1900, the northwest portion of the Property was partially developed for residential and/or agricultural purposes. As early as 1909, commercial structures were introduced into this portion of the Property. These lots are located between South Vermont Avenue and Agricultural Avenue (later renamed Menlo Avenue and again renamed Bill Robertson Lane), divided by West 39th Street, and extending into Leighton Avenue. In 1922, a "dyeing and cleaning" shop was depicted at 3910-3912 South Vermont Avenue. No agriculturally related structures were observed at this portion of the Property by 1928. A gas station was constructed at 3836 South Vermont Avenue in 1931 and was present until as late as 1950. Also identified in 1950, was an auto painting business bowling pin servicing (3804-3806 South Vermont Avenue), (3820 South Vermont Avenue), auto sales lot (3920-3922 South Vermont Avenue), a cabinet shop (921-923 West 39th Street), and artificial limb manufacturer (926-928 West 39th Street). From 1951 to 1956, the majority of the structures had been demolished or removed. The area was graded and redeveloped as parking lots; with the exception of a few multi-tenant residential properties and a restaurant. Only one residential property was present in 1994, while the remaining area was used as parking lots; however, by 2002, the area was fully dedicated as parking lots.

  Current Coliseum area, Parking Lots 4, 5, and 6: As early as 1907, the central portion of the Property was depicted as the Agricultural Park with race and driving courses and associated structures (e.g. Exhibition Pavilion, corrals, clubhouse, grand stand, etc). Construction on the Los Angeles Memorial Coliseum began in 1921, which replaced the Agricultural Park. The Coliseum was completed with associated structures (ticket offices, water closets, athletic buildings, etc.) and opened in 1923. A lawn area and the Los Angeles Park Department – identified with gasoline storage – were present east of the Coliseum from as early as 1928 through to 1956. By 1958, construction began on the Los Angeles Sports Arena and was completed in 1959.

  The southern portion of the Property, which bordered on West Santa Barbara Avenue (currently known as Martin Luther King Jr. Boulevard) had no use indicated until 1919, at which time stock barns and house barns were constructed for the Los Angeles Livestock Show. This area was redeveloped in the 1920s as primarily residential properties but with a few commercial properties as well. In 1923, a blacksmith and machine shop was constructed at 515½ West Santa Barbara Avenue. An auto repair facility was depicted at 739 West Santa Barbara Avenue of

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the Property from 1950 though to 1959. By 1960, this area was fully redeveloped as parking lots.

- Currently, the Property operates as the Los Angeles Coliseum, Los Angeles Sports Arena, and five parking lots (Lots 2, 3, 4, 5, and 6). The Coliseum and Sports Arena each have several storage areas for water-based paint, cylinders and drums of refrigerants, metal and plastic containers for gasoline/diesel fuel, cleaning supplies, propane, drum for broken/used lights containing trace amounts of mercury, refrigeration oil, industrial gear oil, compressor oil, LPG cylinders, microbicide, WD-40, concrete masonry sealer, Select-Kil, citrus solvent degreaser, aerosols, paint/varnish remover, paint epoxy, floor stripper, contact cement, glass frosting, etching, resurfacer, polyurethane, acrylic urethane, marking chalk, "dyed diesel", and motor oil . A 100-lbs LPG AST was present in the storage yard located north of the adjacent VIP parking lot. A poly AST for a fertilizer-water solution to manage the football field adjacent to the Coliseum underground tunnel.

  The Coliseum is also equipped with three DPW transformer substations, each with an emergency generator. The emergency generators are diesel-powered and therefore, limited amounts of diesel are present for the generators. Another diesel-powered generator is located inside the Sports Arena. Limited oil staining was observed on the concrete ground surface beneath the Sports Arena generator.

- According to LAFD Hazardous Materials Records, the Property address 3911 South Figueroa Street indicated the use of a 1,000-gallon gasoline UST. The records indicated that it was in use between 1991 and 2001. A request for information to the LAFD Underground Tank Unit was submitted for 3911 South Figueroa Street; however, this division of the LAFD responded that they had no UST records. Other chemicals inventoried at the 3911 and 3939 South Figueroa Street during this time were fertilizer, gasoline, diesel, motor oil, oxygen, chlorine tablets, propane, acetylene, zeolite, glycol, Freon, and corrosion inhibitor.

- Additional agency records from the SCAQMD and Bureau of Sanitation, also listed at 3911 and 3939 South Figueroa were a charbroiler, two boilers, and a 1,000-gallon grease interceptor with evaporator condensers and cooling tower in 1959.

- The Property was identified in the EDR under the addresses 3911 South Figueroa Street and 3836, 3886, 3902, and 3912 South Vermont Avenue. LA Exposition Park, City of LA General Services, and Los Angeles Memorial Coliseum were all listed under the address of 3911 South Figueroa Street and were identified as hazardous waste generators, FFTS FIFRA site, and HIST FTTS site. The 3912 South Vermont Avenue address was identified as a historical cleaner from 1929 to 1942. Under the address 3902 South Vermont Avenue, this address was also listed as a historical cleaner in 1942. Historical Property addresses of 3836 and 3886 South Vermont Avenue, were identified from 1933 to 1942 as gas stations.

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- The following adjacent properties were identified in the databases of the EDR Radius Map Report:

    - Black Son, 4001 South Hoover Street: a south adjacent property identified as a gas station in 1924 and gas station with auto repair from 1929 to 1933.
    - ARCO #3000, 504 Martin Luther King Blvd: a south adjacent gas station with a closed LUST case (as of August 21, 1996).
    - Lee W R, 3998 South Figueroa Street: an east adjacent gas station in 1924.
    - Atlantic Richfield Co., Sohns Arco 3000, 504 West Martin Luther King Blvd: a registered UST site.
    - Coleman G W, 3941 South Vermont Avenue: west adjacent property identified as a gas station in 1937.
    - Chevron SS# 20-7494, 4000 South Figueroa Street: a southeast adjacent property identified as a hazardous waste generator and registered UST site.
    - Uhel Dean & Stanley Soles, 3929 South Vermont Avenue: a west adjacent property registered as UST site and hazardous waste generator.
    - Coon W E, 3949 South Vermont Avenue: west adjacent property was identified as a gas station from 1924 to 1942.
    - Lew Sing, 3827 South Vermont Avenue: west adjacent property identified as a historic cleaner.
    - Van Tress Hall, 3821 South Vermont Avenue: west adjacent property identified as a historic cleaner
    - Gibson Thos, 3799 South Vermont Avenue: northwest adjacent property and identified as a historic gas station from 1924 to 1929.
    - Madison R P, 1009 West 38th Street: northwest adjacent property identified as a historic cleaner.
    - Soles Dean, 1015 39th Place: west adjacent property identified as historic auto repair facility.
    - Bartels C P/Bartello Chas P, 1015 West 39th Place: west adjacent property identified as historic auto repair facility.
    - Natural History Museum LA Co, 900 Exposition Blvd: north adjacent property identified as a hazardous waste generator, NPDES permitted site, and formerly registered UST site.
    - County of Los Angeles ISD, 900 Exposition Blvd: north adjacent property identified as NPDES permitted site, registered UST site, and hazardous waste generator.
    - Bong Mo Jung, 504 West Santa Barbara Avenue: south adjacent property identified as a historically registered UST site.
    - Armory, 700 State Drive: north adjacent property identified as a hazardous waste generator.
    - California Museum of Science and Industry, 700 State Drive: north adjacent property identified as a registered UST site.
    - LAUSD – Manual Arts New ES#1, 700 State Drive: north adjacent property identified as a hazardous waste generator.
    - California Science Center, 700 State Drive: north adjacent property identified as a registered UST site and hazardous waste generator.

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8.0 Opinion

- The following historical Property uses are RECs: “dyeing and cleaning”/historical drycleaners, gas station, and auto repair and auto painting.

- Historical uses at the Property also included manufacturing: cabinets, artificial limbs, and bowling pins. These historical uses could potentially be RECs due to various paints, lacquers, soldering fluids, etc. that are typically use in the processes.

- Records indicate that a 1,000-gallon UST was utilized at the Property. According to conversations with USC and the Property owner, the tank was believed to be abandoned in-situ. However, no documentation regarding the condition of the tank, abandoning the tank, or its location were found during this assessment. Therefore, the UST is considered a REC.

- The Los Angeles Park Department identified with gasoline storage is a REC.

- The hazardous materials currently present at the Property are considered RECs; however, no significant stains or spills were observed. No further assessment regarding this issue is warranted at this time.

- The historical adjacent gas stations, drycleaners, and registered UST sites are RECs.

- The gas stations currently present adjacent or within the immediate vicinity are RECs.

- No significant data gaps were identified that affect the ability of the Environmental Professional (EP) to identify RECs.

- Historical information regarding the Property was dated as early as 1900, which depicted a portion of the Property developed with residential and agricultural structures. Therefore, a historical data failure occurred during this assessment. It was deemed unlikely that additional ASTM sources would yield significant information.

- There are no unusual circumstances where greater certainty is required regarding RECs.

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9.0 Conclusions and Recommendations

CONVERSE has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527 for Los Angeles Coliseum, Sports Arena, and Parking Lots 2, 3, 4, 5, and 6, City of Los Angeles, Los Angeles County, California. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Property except for the following:

- Historical Property uses related to "dyeing and cleaning"/historical drycleaners, a gas station, and auto repair and auto painting.
- Historical manufacturing of cabinets, artificial limbs, and bowling pins.
- The historical 1,000-gallon UST identified at the Property.
- The gasoline storage at the Property's historical Los Angeles Park Department.
- Current hazardous materials stored at the Property.
- The historical adjacent gas stations, drycleaners, and registered UST sites.
- The gas stations currently present adjacent or within the immediate vicinity.

Based on the historical Property uses and the historical UST, Converse recommends a geophysical survey in the suspected UST area and a Phase II soil and soil vapor in the areas of the suspected UST, drycleaner, gas station and auto repair. In addition, Converse recommends a soil vapor survey to evaluate the boundaries of the Property from adjacent and vicinity of historical and current gas stations, drycleaners, and other UST sites.

With regards to the hazardous materials stored at the Property, no further assessment is warranted. CONVERSE does recommend continuing proper housekeeping and storage of materials and waste.

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10.0 Deviations and Limitations

The following limitations and exceptions were encountered during the course of this assessment:

- CONVERSE primarily accessed the interior areas of the Los Angeles Coliseum and Sports Arena that were used for storage.
- CONVERSE requested additional information from the LAFD Fire Prevention Division, LARWQCB, SCAQMD, DPH, City of Los Angeles, Department of Public Works, Bureau of Sanitation; however, responses were not received during the timeframe of this assessment.

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11.0 Additional Non-Scope Services

There are environmental issues outside the scope of the ASTM E1527-05 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk which is defined in the standard as "risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate…"

No non-scope issues were addressed in this report.

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12.0 Signature of Environmental Professional

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.

Lisa Walldez

Lisa Walldez
Staff Environmental Scientist

This Phase I ESA was completed by of the above Environmental Professional. A complete list of preparers, and their responsibilities for this assessment, is provided in the following section (Section 13.0, List of Preparers).

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13.0 List of Preparers

Laura Tanaka
Principal Environmental Scientist

B.S., Biology, California State Polytechnic University, Pomona, 1987
Cal/EPA Registered Environmental Assessor I, #06283
Cal/OSHA Asbestos Consultant, 11-4708
DPH Certified Lead Inspector/Assessor, #I-3086
DPH Certified Project Designer, #D-3086
DPH Certified Project Monitor, #M-3086

Ms. Tanaka is currently responsible for the day-to-day operations of the Costa Mesa office. Ms. Tanaka has 21 years experience with Phase I and II ESAs, Preliminary Endangerment Assessments, asbestos surveys, lead-based paint surveys, abatement monitoring, as well as hazardous material audits, completing business plans, and SCAQMD permitting. Current duties at CONVERSE include project management, business development and client maintenance, conducting/managing ESAs, and completing third party documents reviews.

Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, Historical Research, Property Reconnaissance, Interviews, and Report Review.

Lisa Walldez
Staff Environmental Scientist

B.S., Environmental Toxicology, University of California, Davis, 2005
DPH Certified Lead Inspector/Assessor, #I7343

Ms. Walldez has 6 years experience in the environmental field. Ms. Walldez has extensive experience with Transaction Screen Process (TSPs) Reports and Phase I Environmental Site Assessments (ESAs) on vacant, commercial, residential, and industrial properties throughout California. Ms. Walldez has written Phase II ESA scoping documents and proposals, Remedial Action Workplans (RAWs), Removal Action Completion Reports (RACRs), and Phase II ESA reports. In addition, Ms. Walldez has conducted risk assessments and completed Human Health Screening Evaluations (HSSEs), as well as performed methane monitoring at several schools under the oversight of a local school district and the Department of Toxic Substances Control.

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Principal area of responsibility for this ESA report: Project Management, Historical Research, Regulatory Agency Interaction, Property Reconnaissance, Interviews, and Report Generation.

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Application for Authorization to Use

Appendix A

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Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

TO: CONVERSE CONSULTANTS
185 East Paularino Avenue, Suite B
Costa Mesa, California 92626

Project Title & Date: _____

Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

_____

_____

Applicant wishes or needs to use the referenced report because:

_____

_____

_____

Applicant also understands and agrees that the referenced document is a copyrighted document and shall remain the sole property of CONVERSE CONSULTANTS. Unauthorized use or copying of the report is strictly prohibited without the express written permission of CONVERSE CONSULTANTS. *Applicant* understands and agrees that CONVERSE CONSULTANTS may withhold such permission at its sole discretion, or grant such permission upon agreement to Terms and Conditions, such as the payment of a re-use fee, amongst others.

Applicant Signature: _____

Applicant Name (print): _____

Title: _____

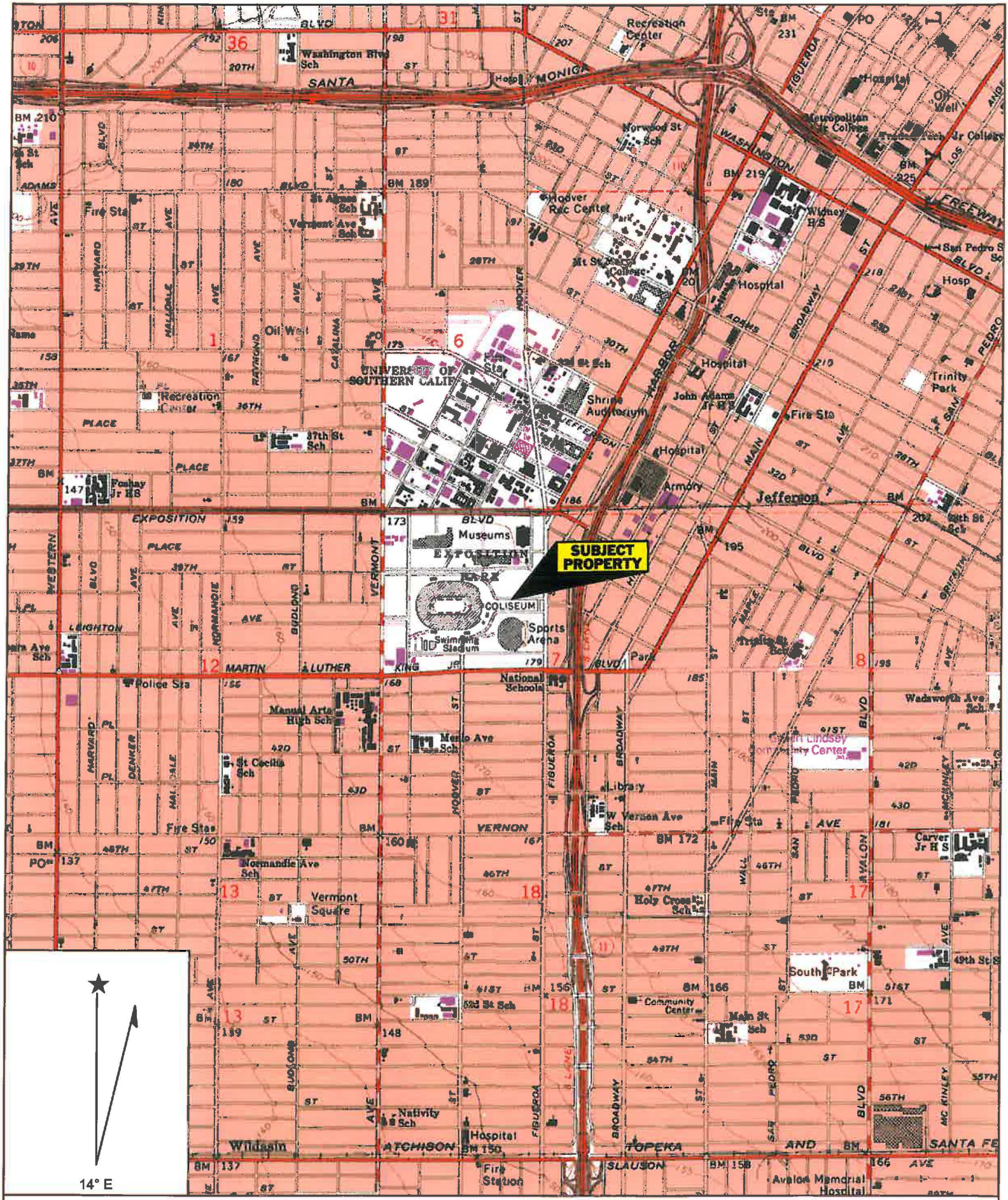
Date: _____

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Property Plans

Appendix B

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Name: HOLLYWOOD
Date: 1/24/2012
Scale: 1 inch equals 2000 feet

Location: 034° 00' 51.3" N 118° 17' 02.3" W
Caption: Figure 1
Converse Consultants Project 10-42-176-01

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0 400 800

APPROXIMATE SCALE IN FEET

PROPERTY MAP

Converse Consultants

UNIVERSITY OF SOUTHERN CALIFORNIA
LA MEMORIAL COLISEUM & SPORTS ARENA
LOS ANGELES, CA 90037

Project No.	Figure No.
10-42-176-01	2

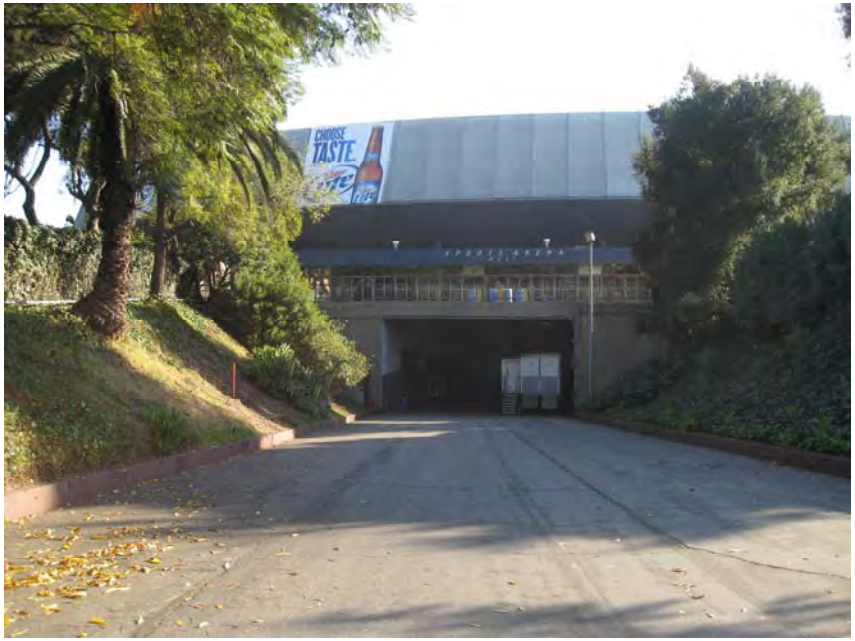
Pertinent Property Photographs

Appendix C

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View of the exterior of the Los Angeles Sports Arena



View of the tunnel accessing the Los Angeles Sports Arena.



View of a secured storage of propane and gasoline/diesel containers at the Sports Arena tunnel.



View of the court and seating in the Sports Arena.



Interior view of the Sports Arena corridor.



View of a vendor's space in the Sports Arena.



View of the underground storage space of the Sports Arena.



Storage of water-based paints in the underground storage space of Sports Arena.



A storage room located in the underground the Sports Arena.



View of the refrigeration machinery room in the Sports Arena.



View of petroleum product storage in the Sports Arena refrigeration machinery room.



View of cylinders of refrigerants in the refrigeration machinery room.



The storage of refrigeration chemicals (containing Freon) in the Sports Arena refrigeration machinery room.



View of more chemical storage in the refrigeration machinery room.



View of corridor storage space in the Sports Arena.



View of paint storage room in the Sports Arena.



View of a drum used to store broken light bulbs.



View of the Sports Arena emergency generator.



View of the light staining observed beneath the emergency generator.



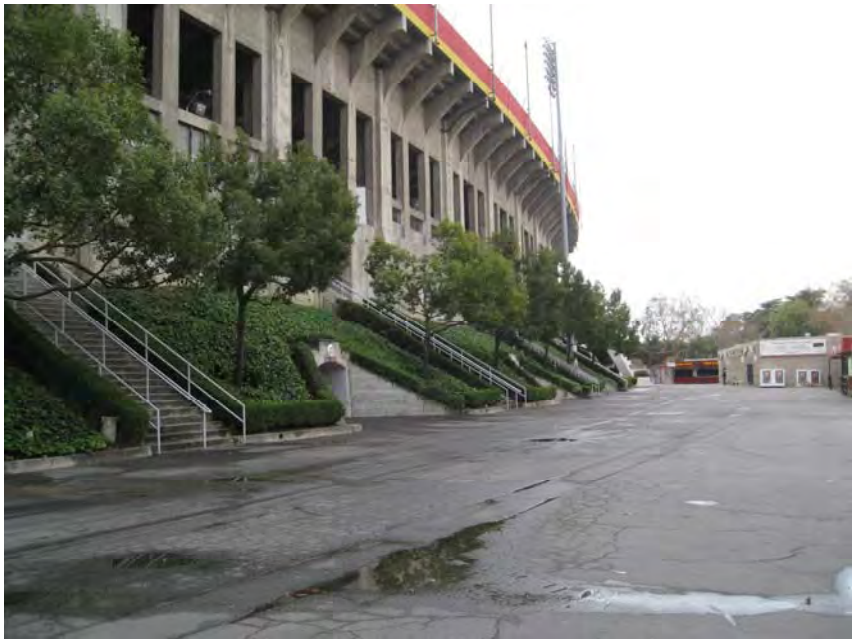
View of the LPG tank located in the exterior storage area between the Coliseum and Sports Arena.



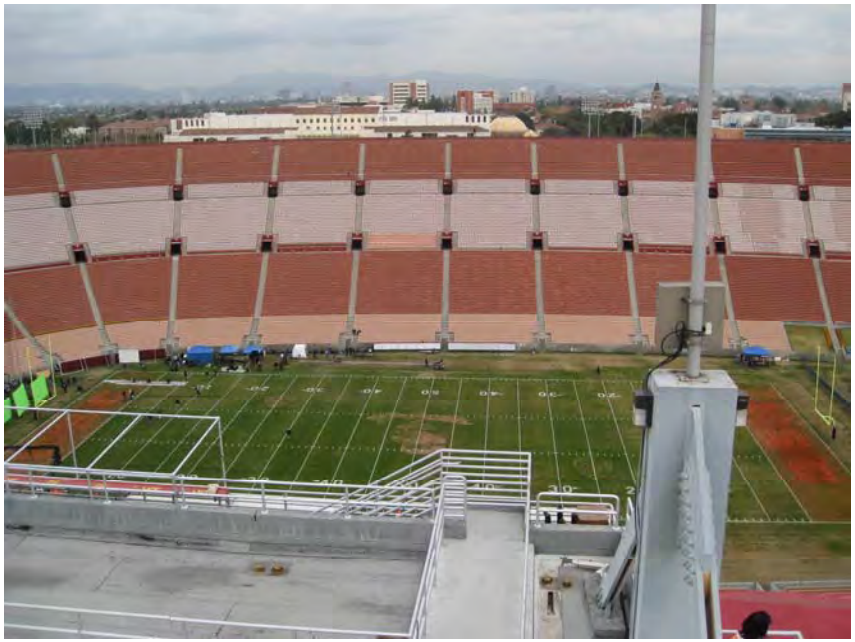
View of more exterior storage between the Coliseum and Sports Arena.



Exterior view of the Los Angeles Memorial Coliseum.



View of publicly accessible area outside the Coliseum.



View of the Coliseum's stadium.



View of a vendor space located at the Coliseum.



View of a Coliseum ticket kiosk and restrooms.



View of the sign on a Coliseum transformer substation stating no PCBs present.



View of the transformer substation with no PCBs.



View of another DPW transformer substation located at the Coliseum.



View of the heating and ventilation equipment for the Coliseum.



View of the elevator equipment room at the Coliseum.



View of the paint storage room in the Coliseum.



View of a kitchen at the Coliseum.



View of the storage warehouse at the Coliseum.



View of the cleaning chemicals storage for the Coliseum warehouse.



View of the partially full drums observed in an exterior storage area at the Coliseum.



View of the underground tunnel at the Coliseum.



View of a storage room accessed via the Coliseum tunnel.



View of the AST containing water and fertilizer for the Coliseum's field.



View of partially full drums observed in the Coliseum tunnel's storage area.



Storage of water-based paints observed at the Coliseum's tunnel storage area.



View of storage observed at the Coliseum's field house.



View of Parking Lot 2 looking north.



View of Parking Lot 2 and the Coliseum looking southeast.



View of Parking Lot 3.



View of Parking Lot 4.



View of Parking Lot 5.



View of Parking Lot 6.

Historical Sanborn Maps

Appendix D

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

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Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
Certification # 0FF4-4ACE-A2B9

Maps Provided:

1970	1957
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1958	

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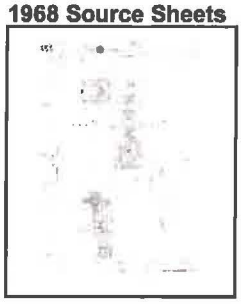


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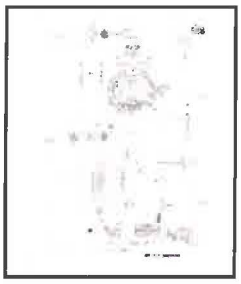


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1968 Source Sheets



Volume 5, Sheet 555

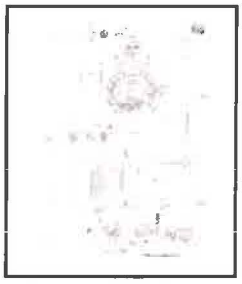


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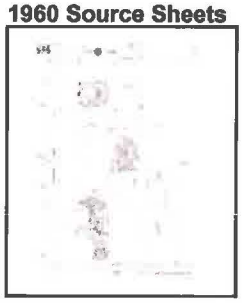


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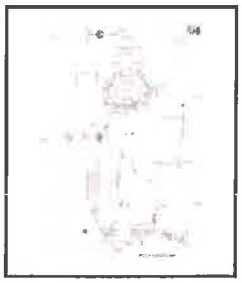


Volume 5, Sheet 556

1960 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1959 Source Sheets

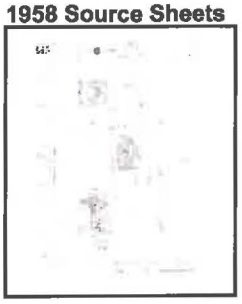


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Volume 5, Sheet 556

1958 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1957 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 555

1954 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556



Volume 5, Sheet 555



Volume 5, Sheet 556

1950 Source Sheets

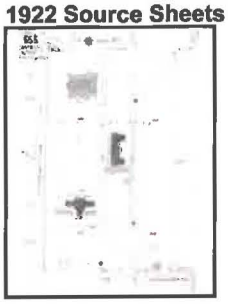


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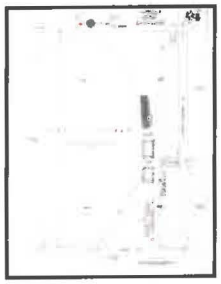


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1922 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1907 Source Sheets

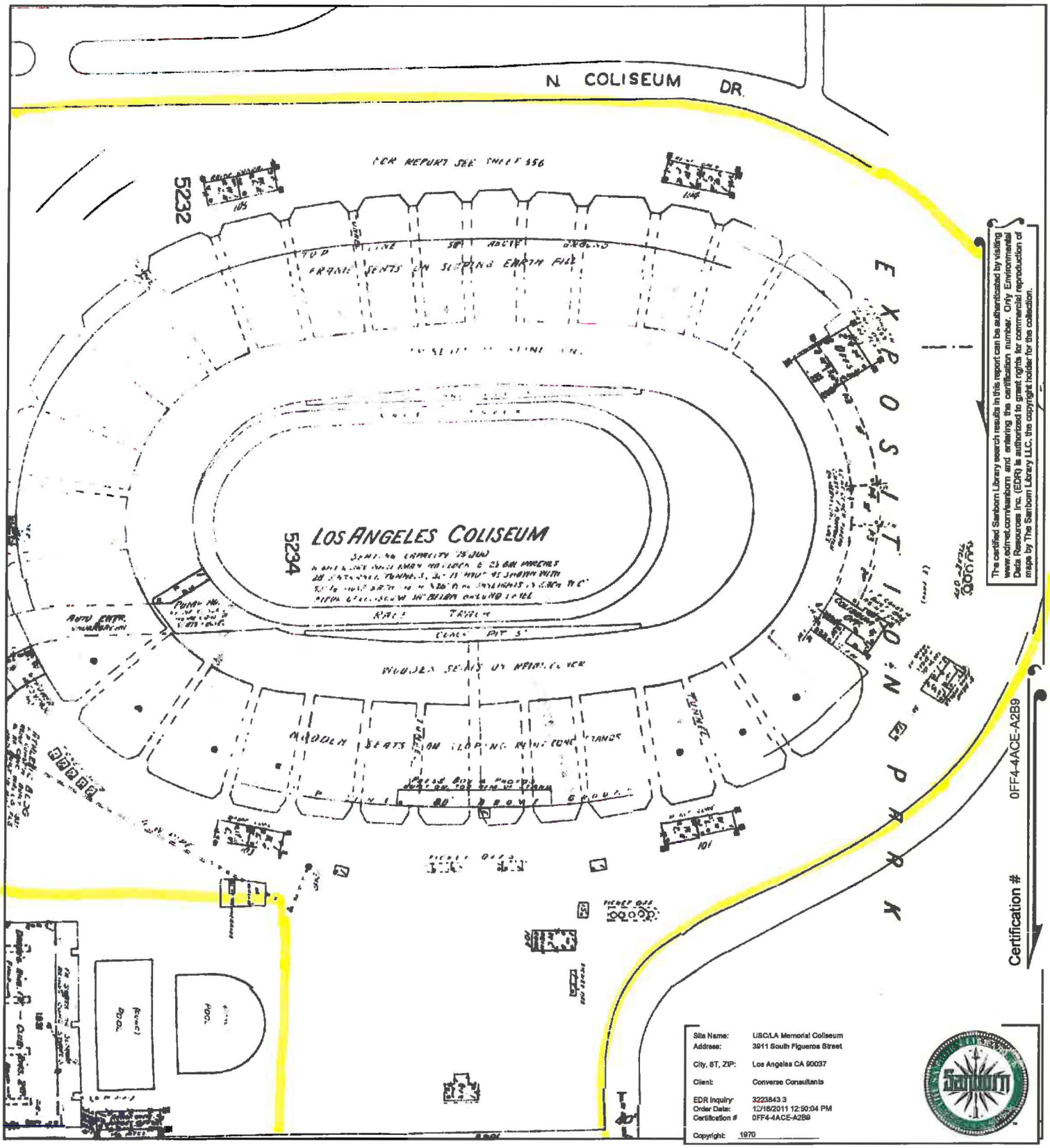


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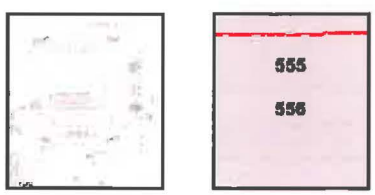
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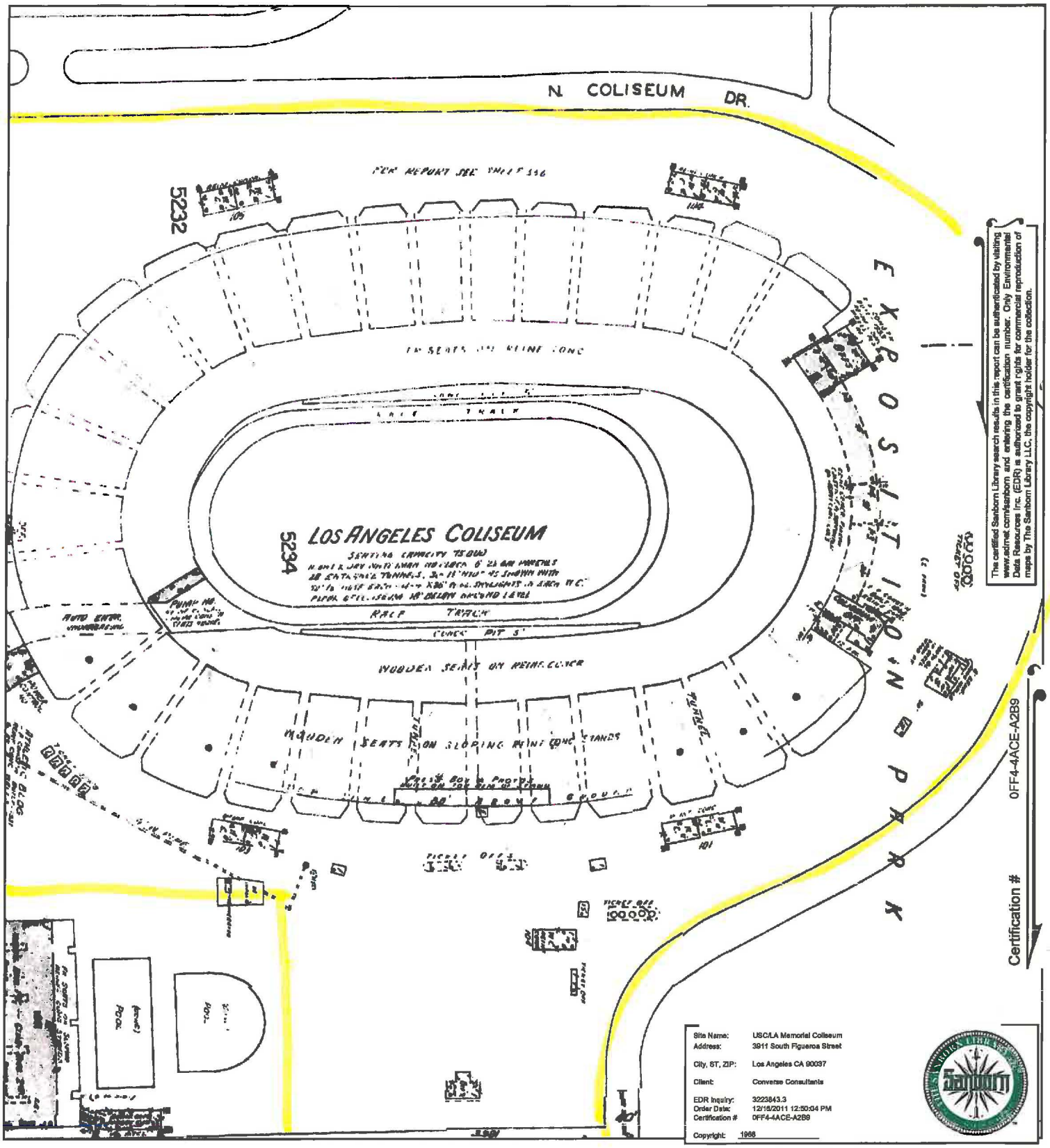


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Volume 5, Sheet 556

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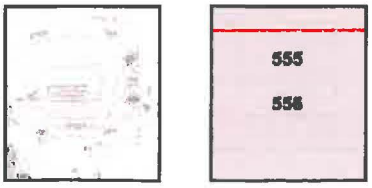
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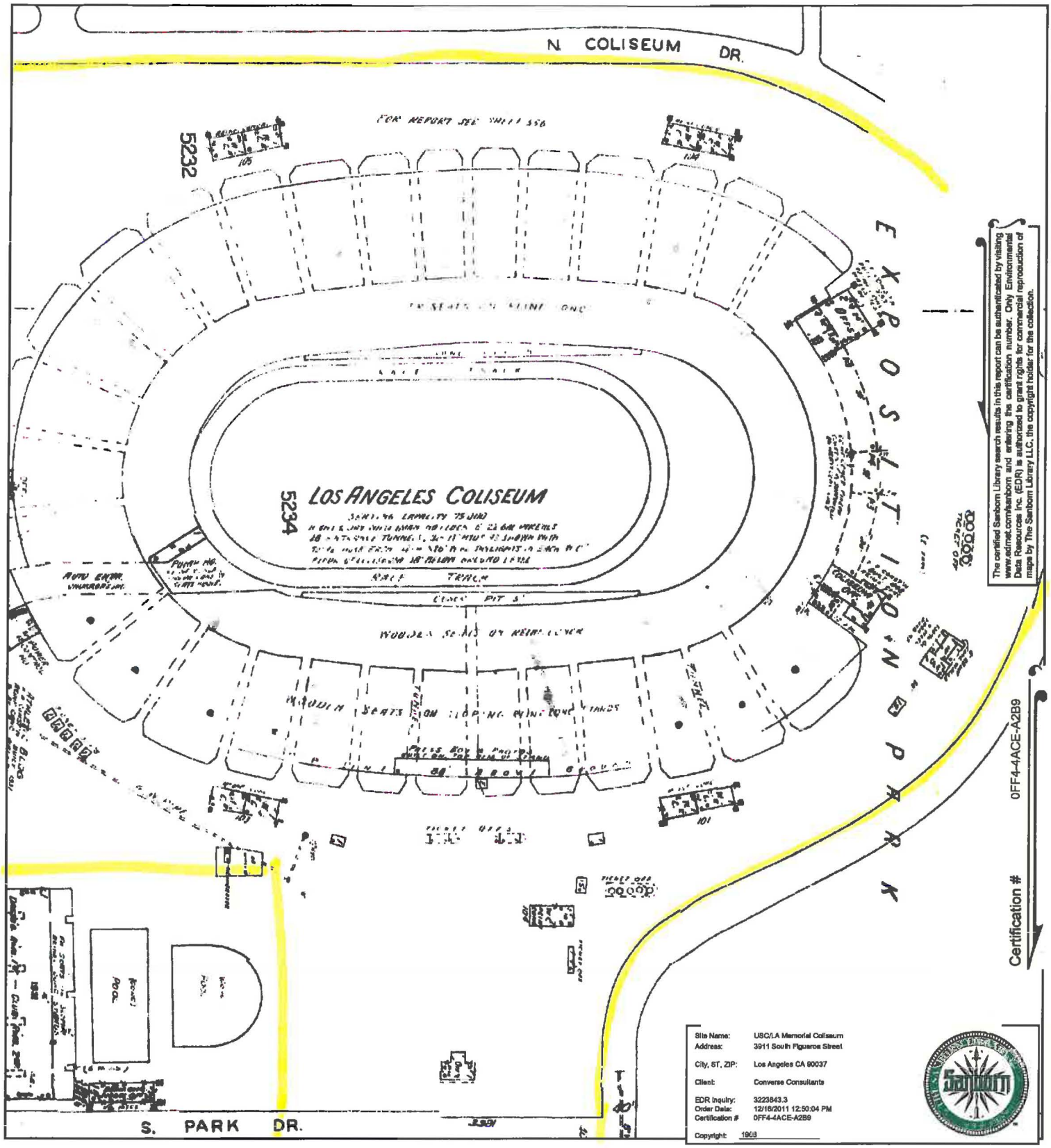
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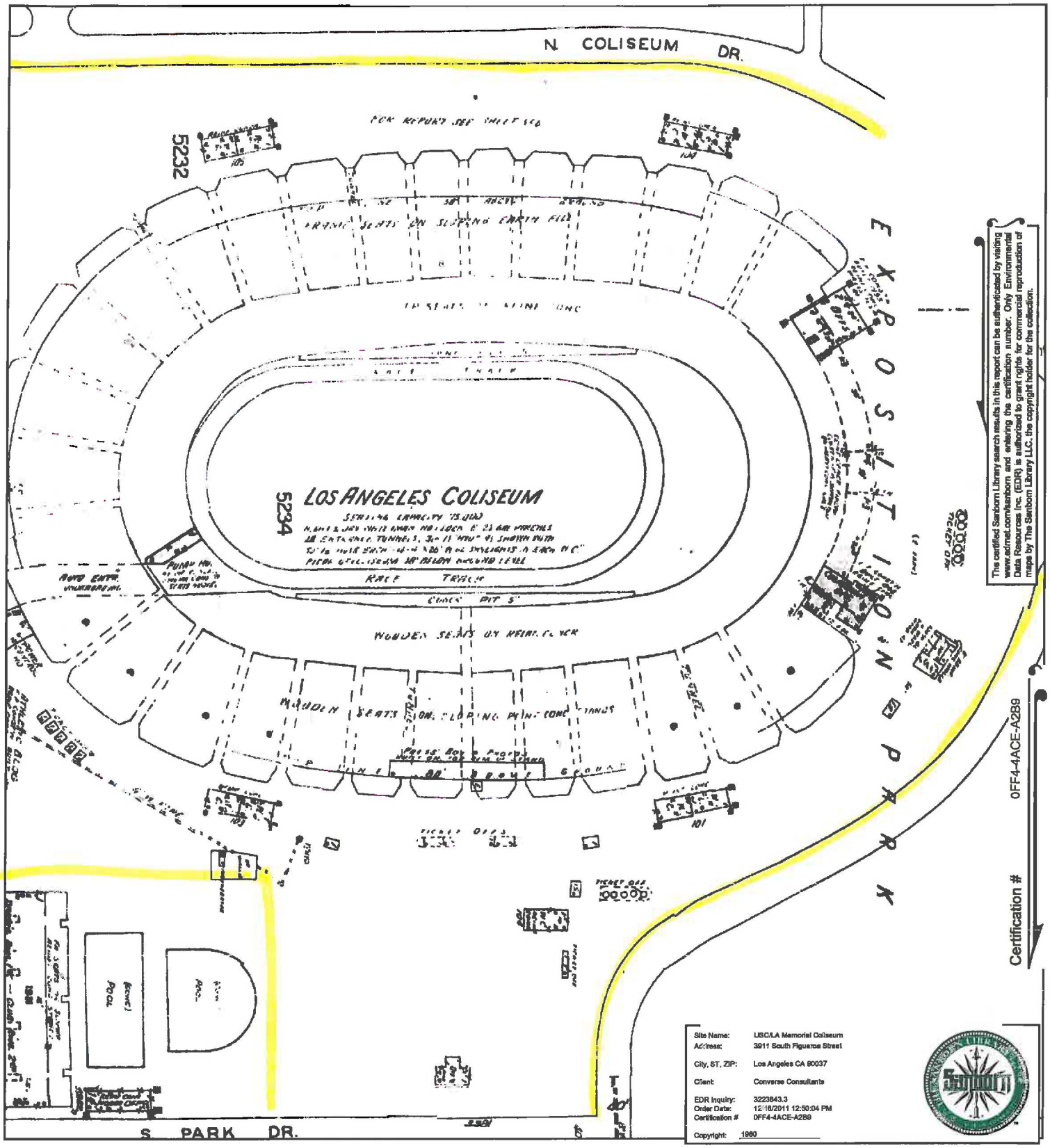


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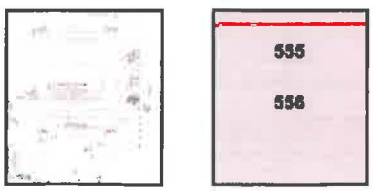
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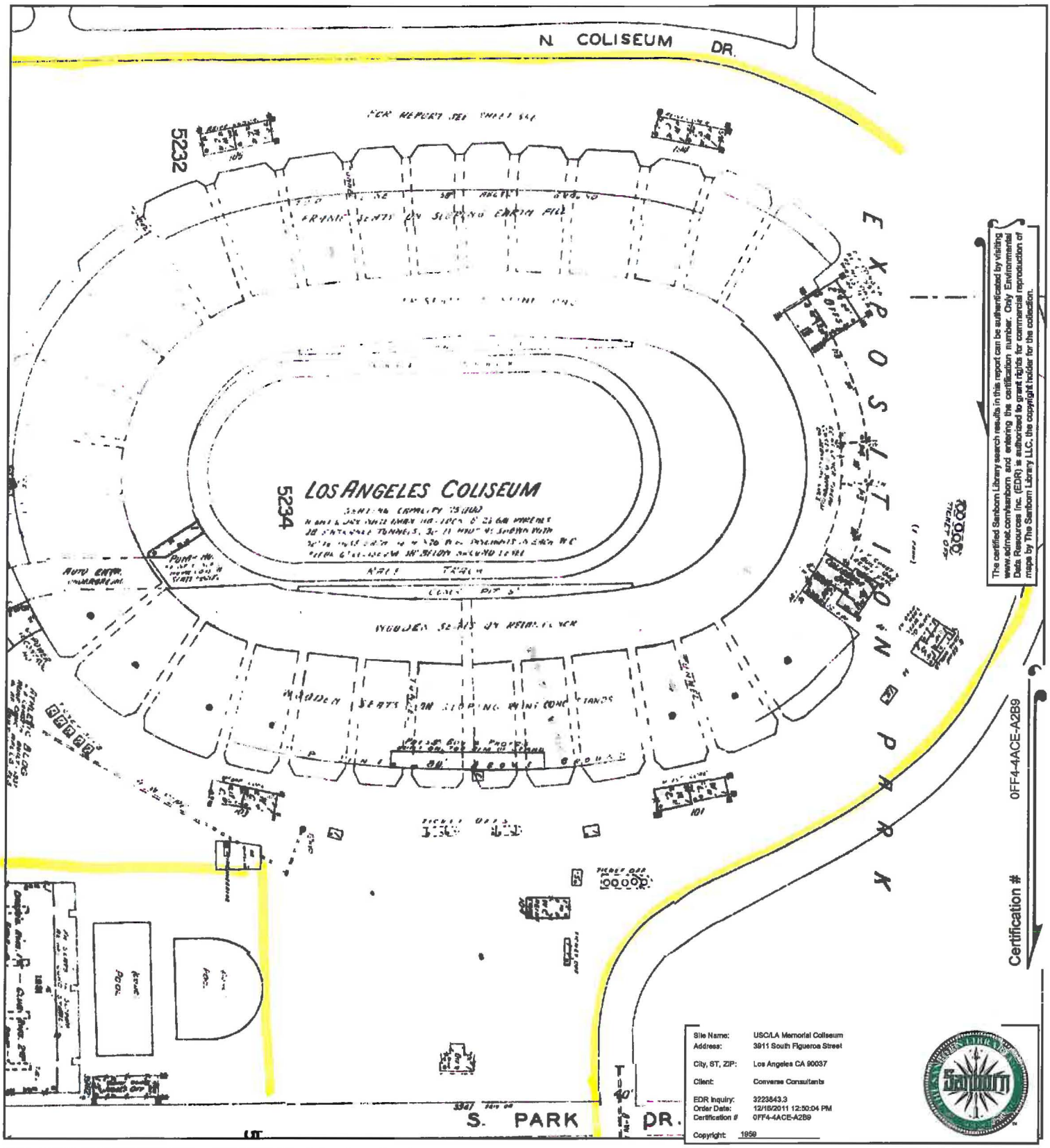


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Volume 5, Sheet 556

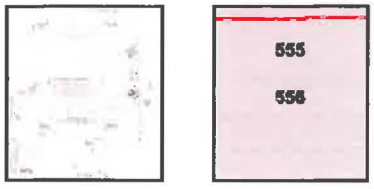
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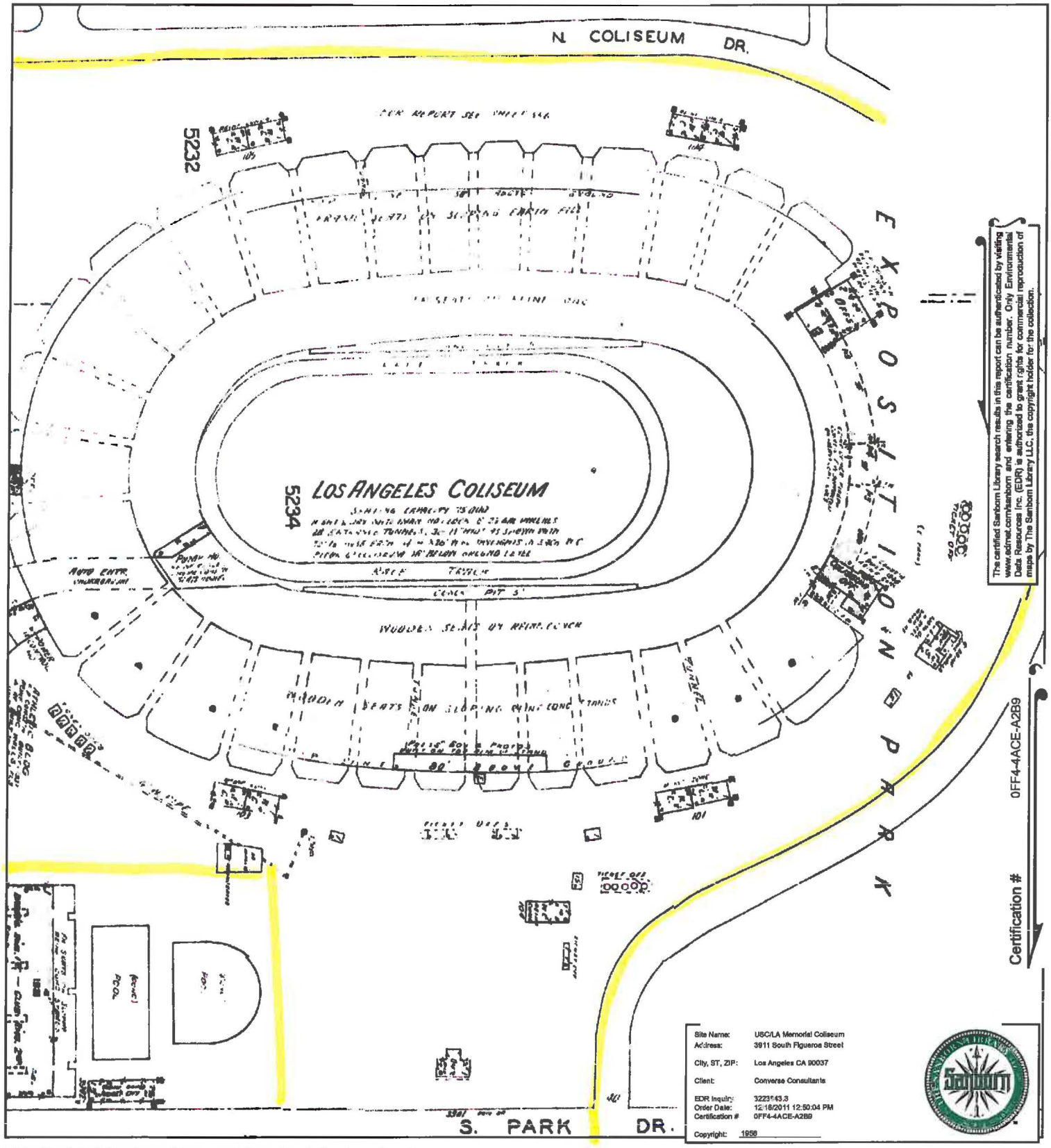


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Volume 5, Sheet 556

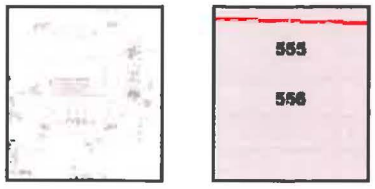
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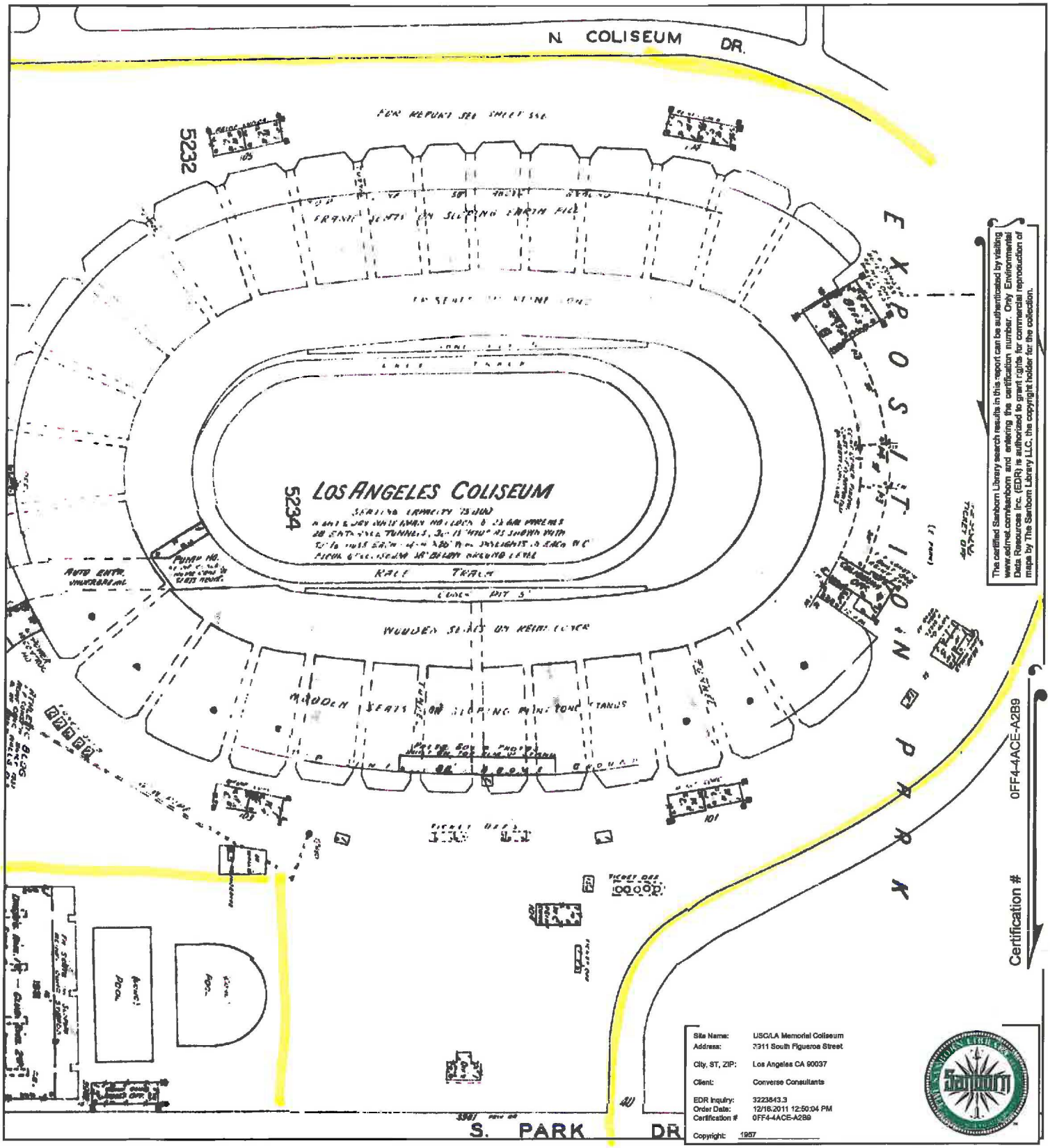


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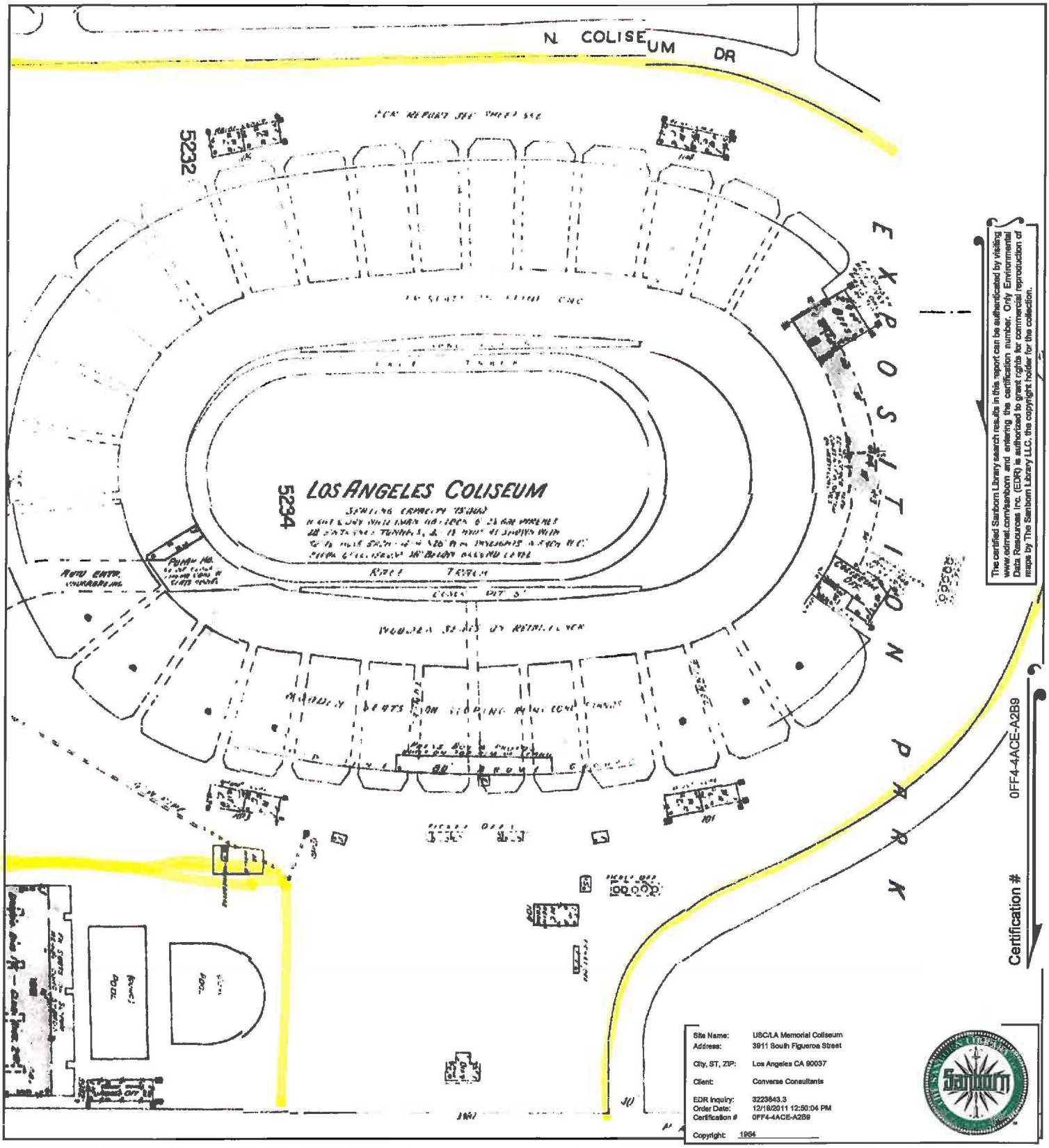


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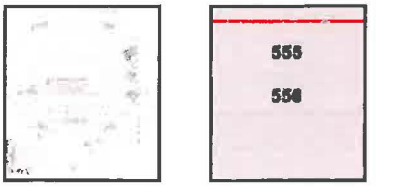
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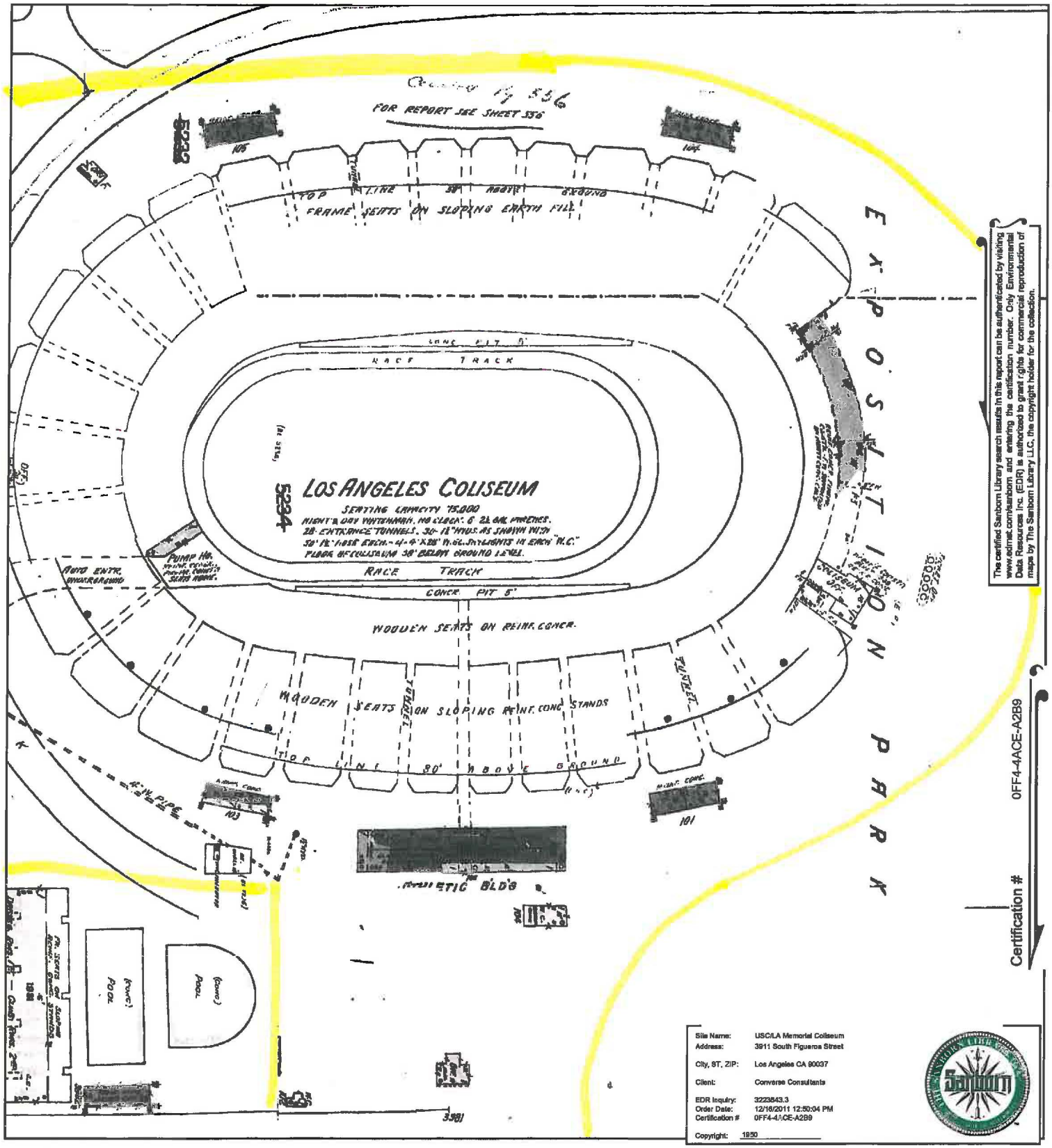


Volume 5, Sheet 555
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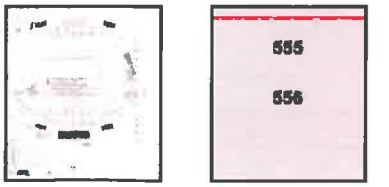
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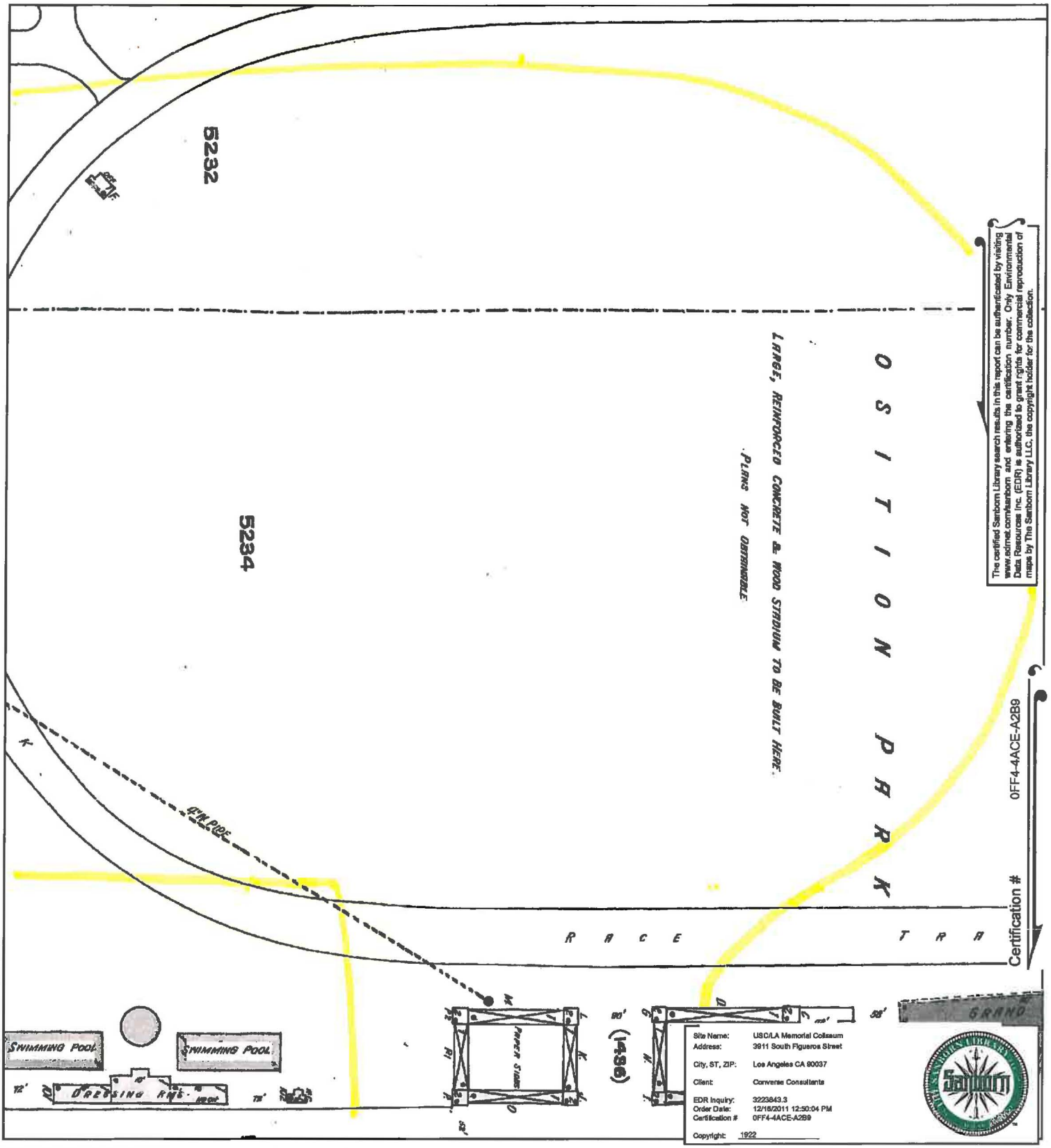


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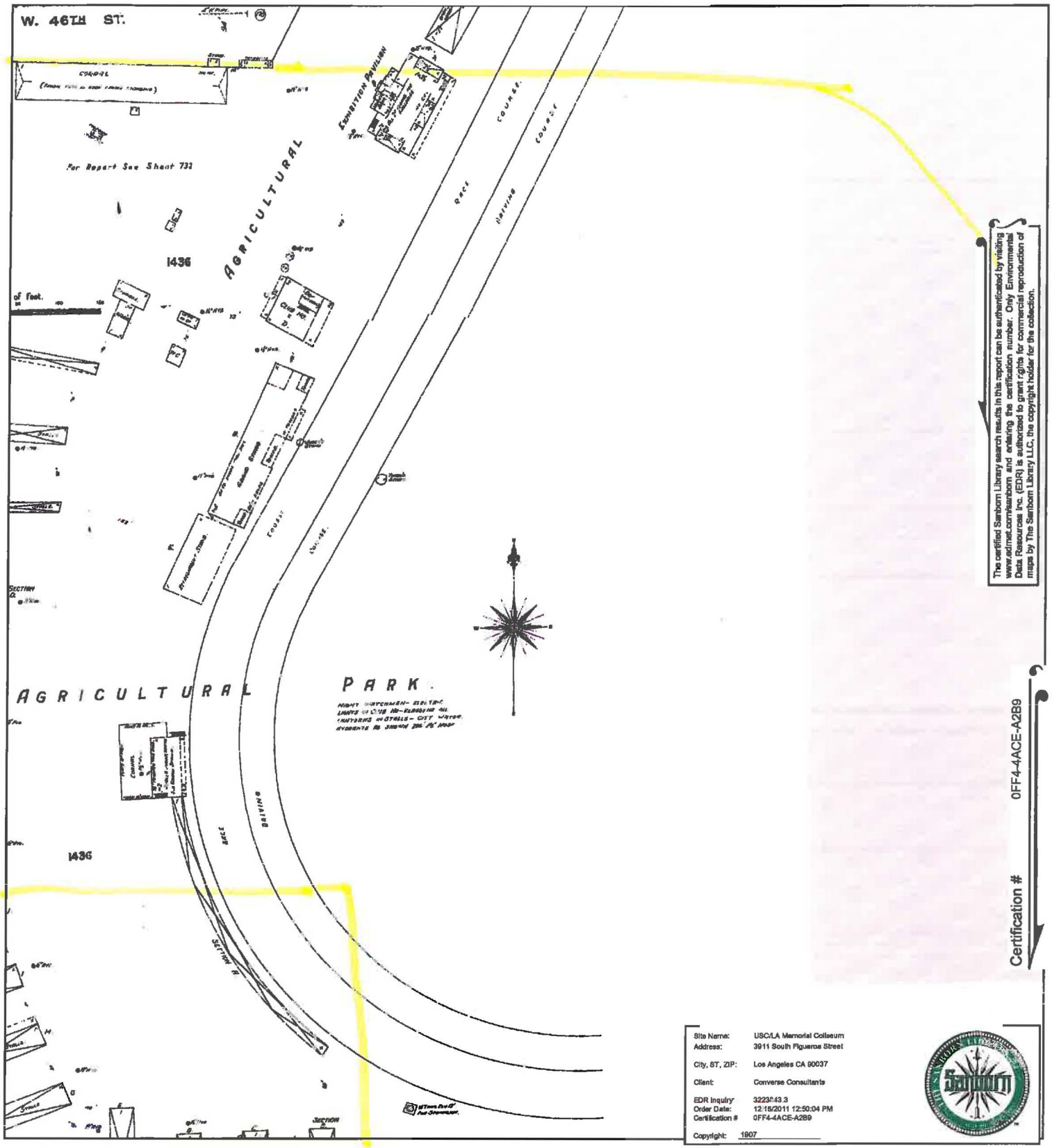


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Volume 5, Sheet 556

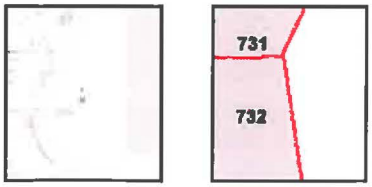
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1907 Certified Sanborn Map



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Volume 6, Sheet 732

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
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Certified Sanborn® Map Report

12/16/11

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

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City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

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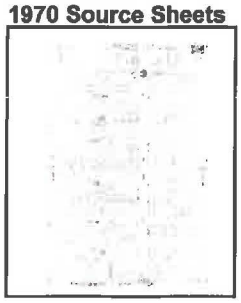
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Sanborn Sheet Thumbnails

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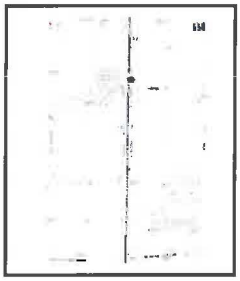
1970 Source Sheets


Volume 5, Sheet 588

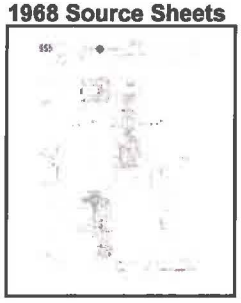

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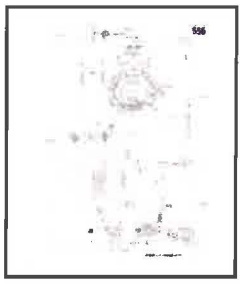

Volume 5, Sheet 555

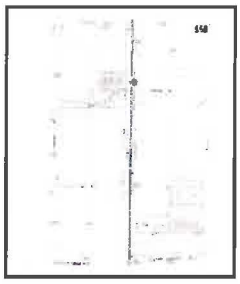

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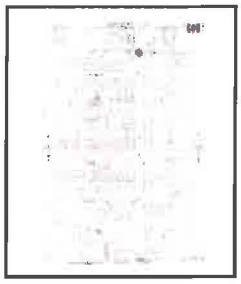

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1968 Source Sheets


Volume 5, Sheet 555

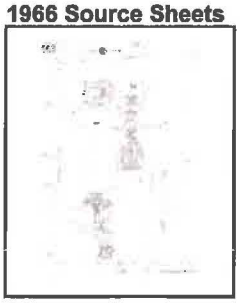

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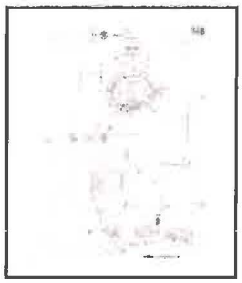

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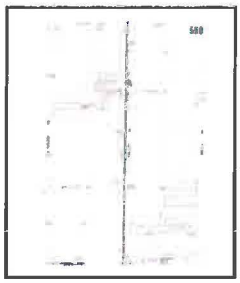

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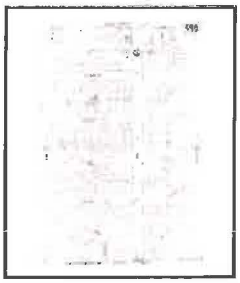

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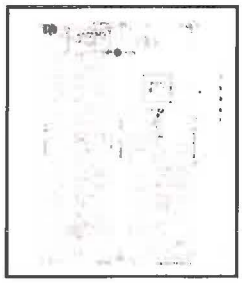
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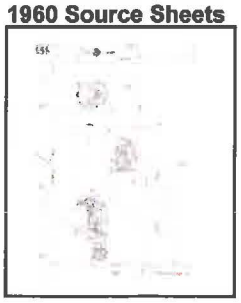

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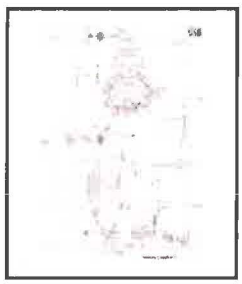

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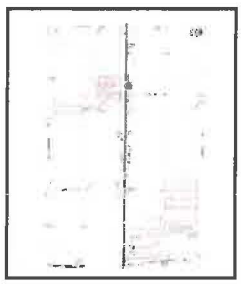

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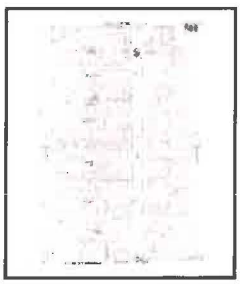

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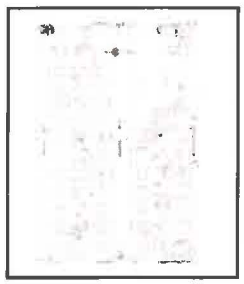
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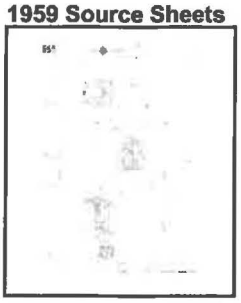

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Volume 5, Sheet 558


Volume 5, Sheet 588


Volume 5, Sheet 589

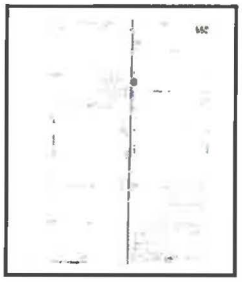
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Volume 5, Sheet 558

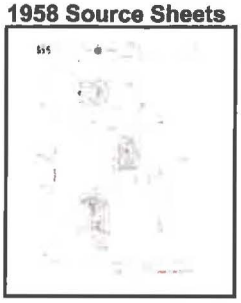


Volume 5, Sheet 588



Volume 5, Sheet 589

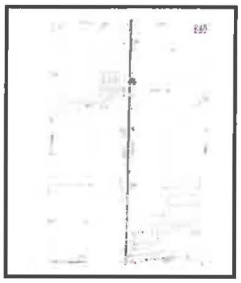
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Volume 5, Sheet 558

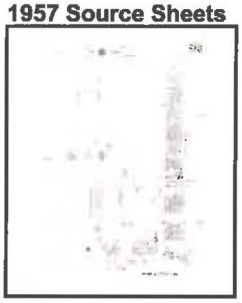


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1957 Source Sheets



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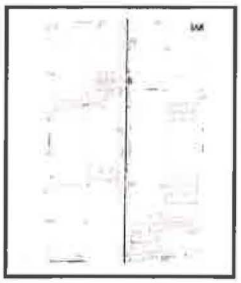
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Volume 5, Sheet 555



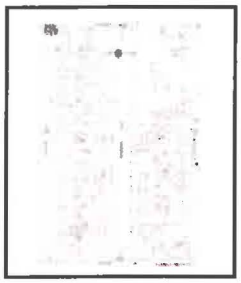
Volume 5, Sheet 556



Volume 5, Sheet 558



Volume 5, Sheet 588



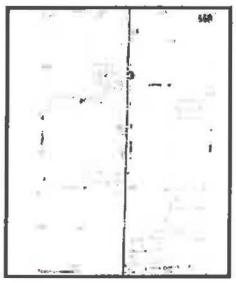
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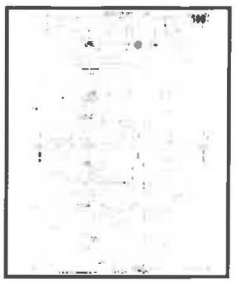
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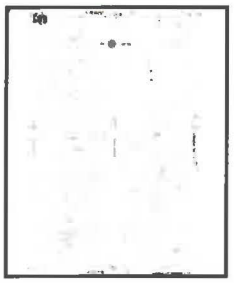
Volume 5, Sheet 556



Volume 5, Sheet 558



Volume 5, Sheet 588



Volume 5, Sheet 589

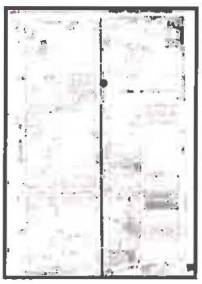
1950 Source Sheets



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Volume 5, Sheet 558

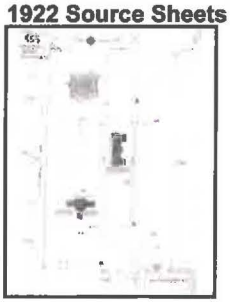


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Volume 5, Sheet 589

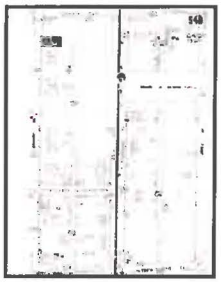
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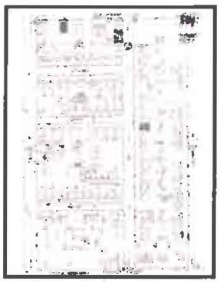
Volume 5, Sheet 555



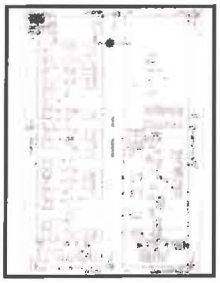
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1907 Source Sheets



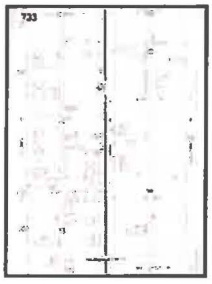
Volume 6, Sheet 682



Volume 6, Sheet 731

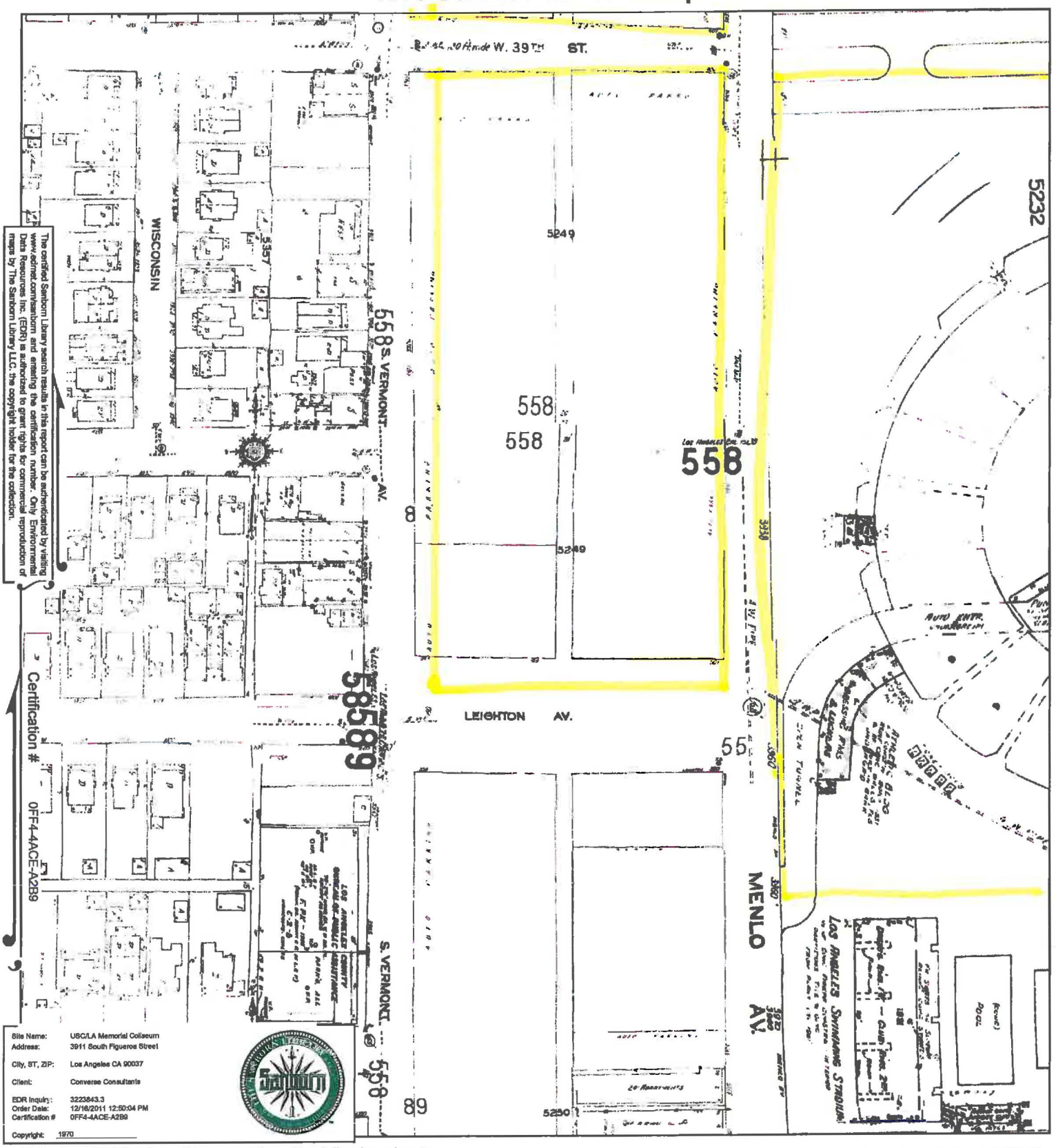


Volume 6, Sheet 732



Volume 6, Sheet 733

1970 Certified Sanborn Map



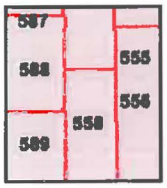
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Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
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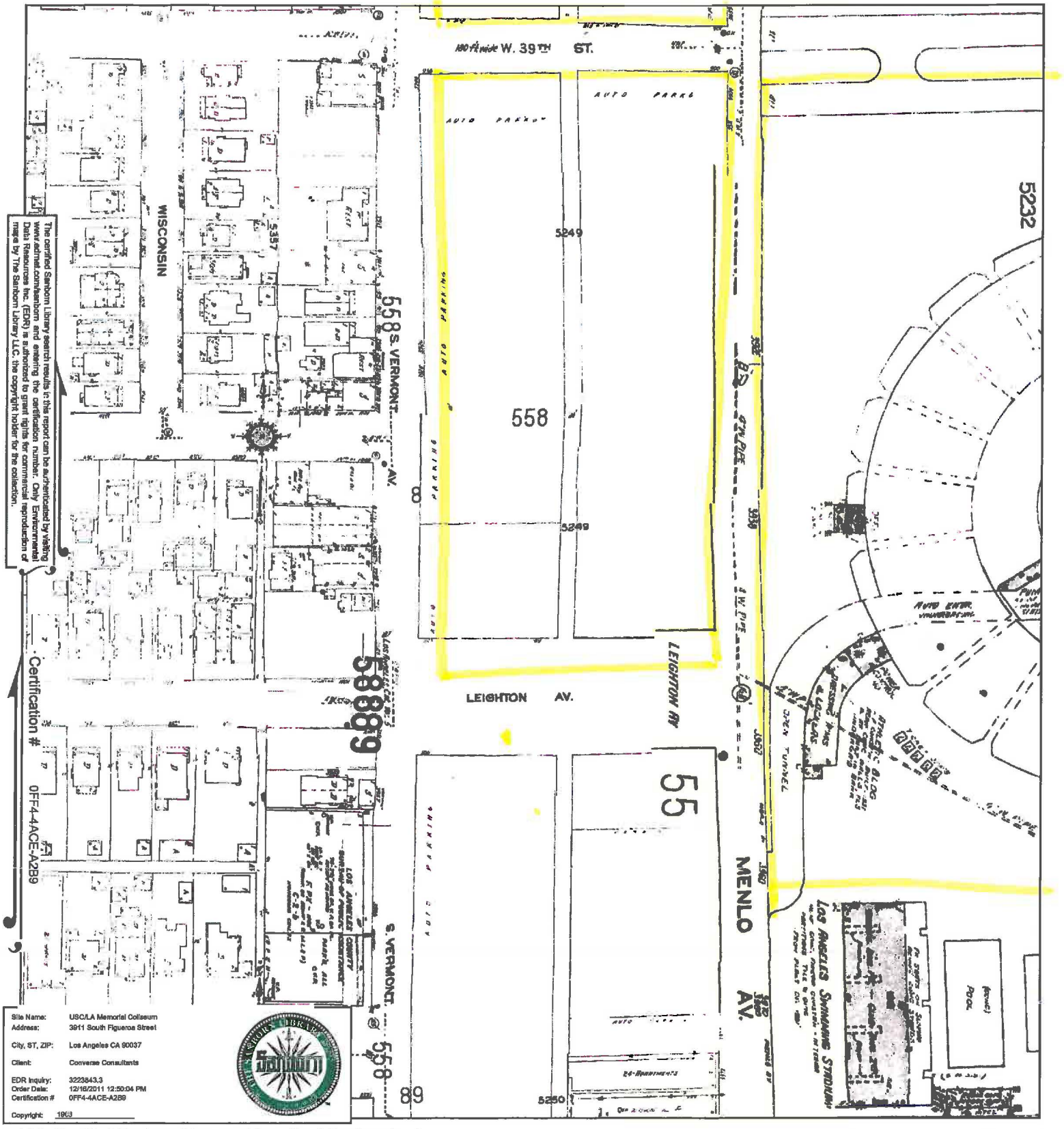


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0 Feet 165 330 660

N

1968 Certified Sanborn Map



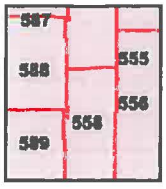
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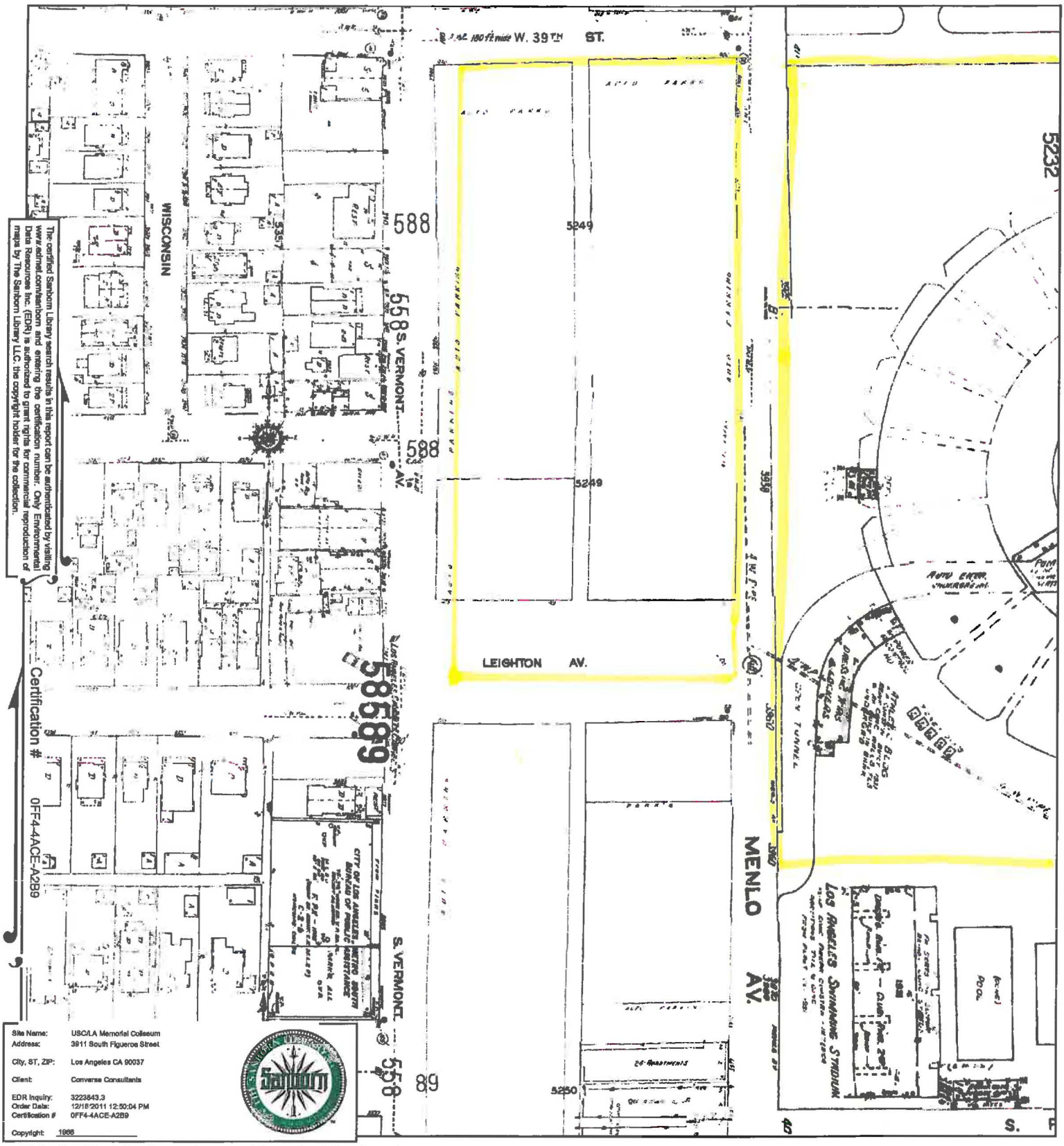


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0 Feet 165 330 660

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1966 Certified Sanborn Map



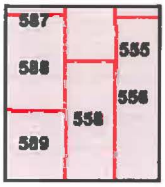
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Certification #	0FF4-4ACE-A2B9
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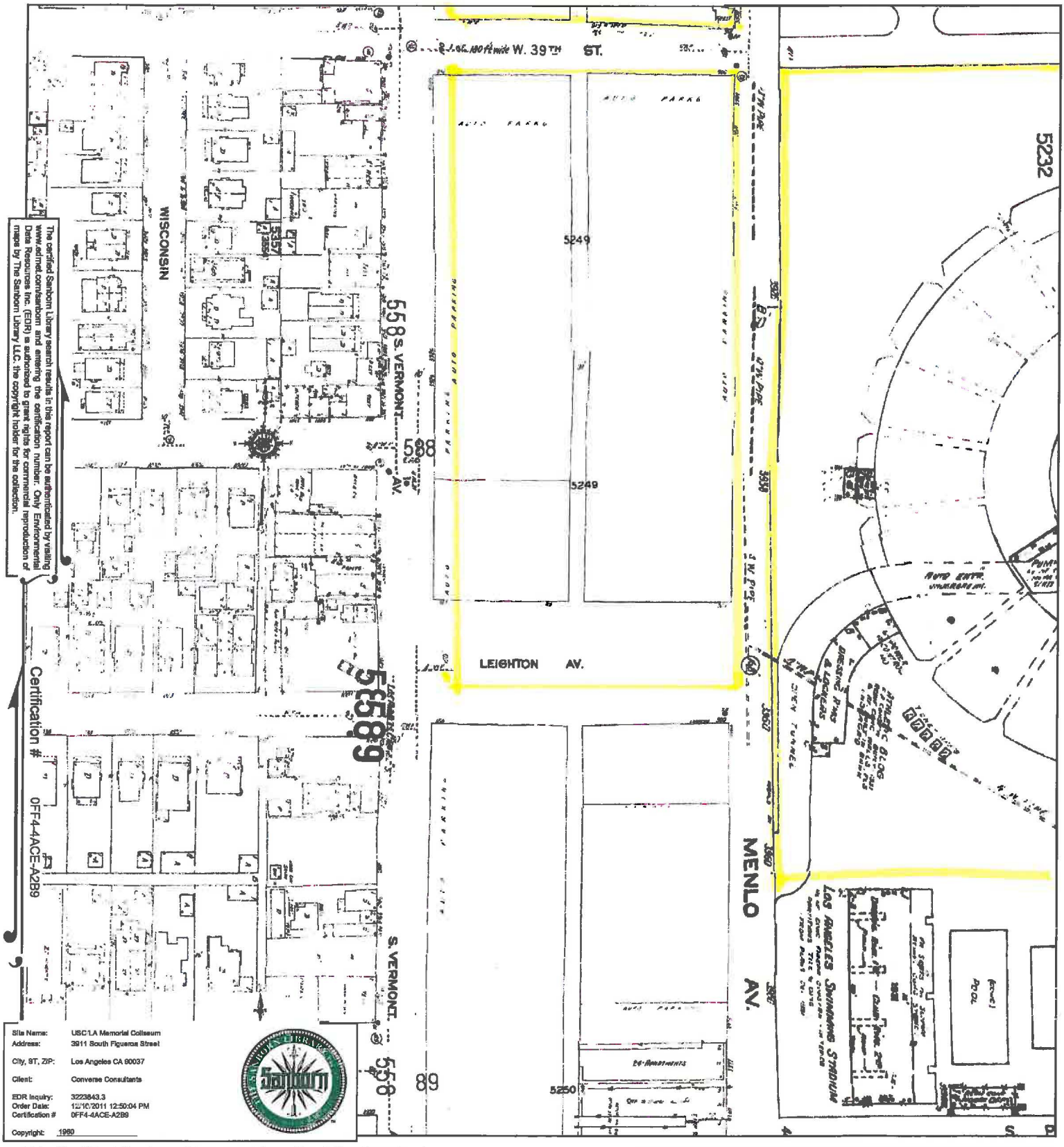


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0 Feet 165 330 660

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1960 Certified Sanborn Map



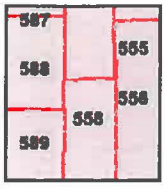
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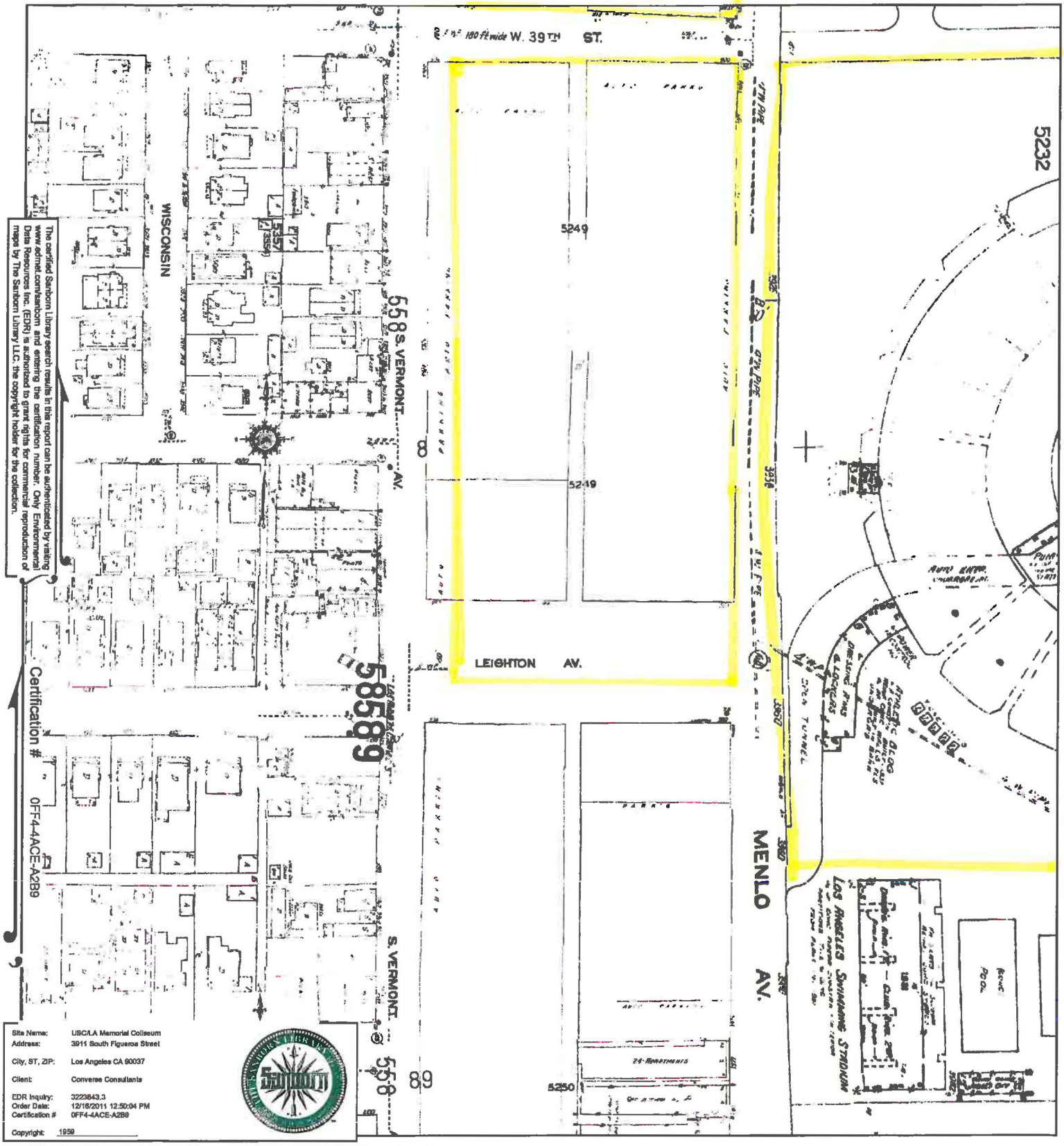


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0 Feet 165 330 660

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1959 Certified Sanborn Map

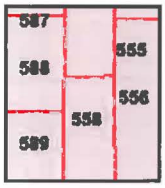


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Copyright:	1959

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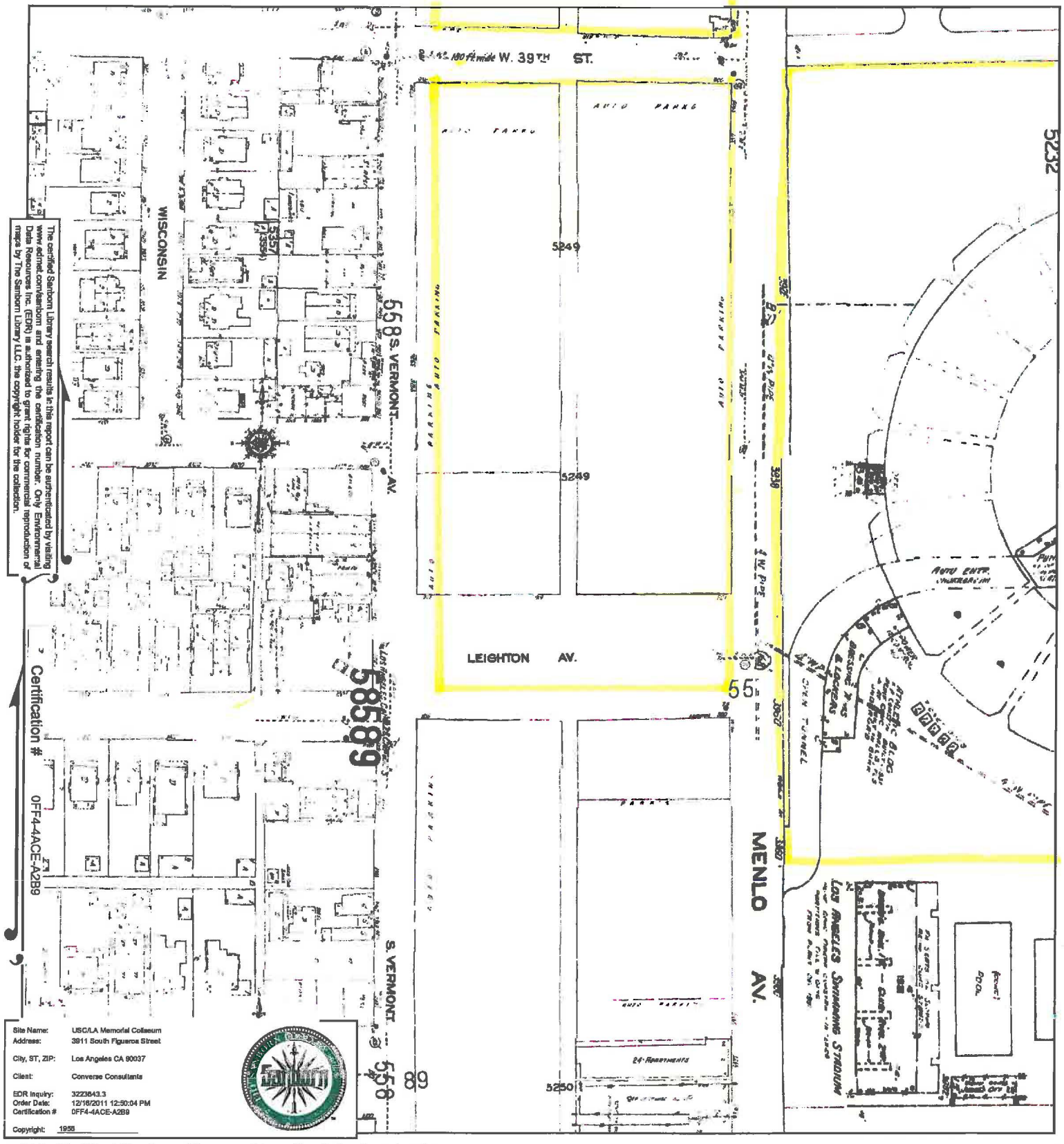


Volume 5, Sheet 555
Volume 5, Sheet 556
Volume 5, Sheet 558
Volume 5, Sheet 588
Volume 5, Sheet 589

0 Feet 165 330 660

N

1958 Certified Sanborn Map

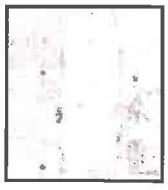


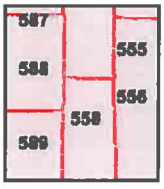
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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1958

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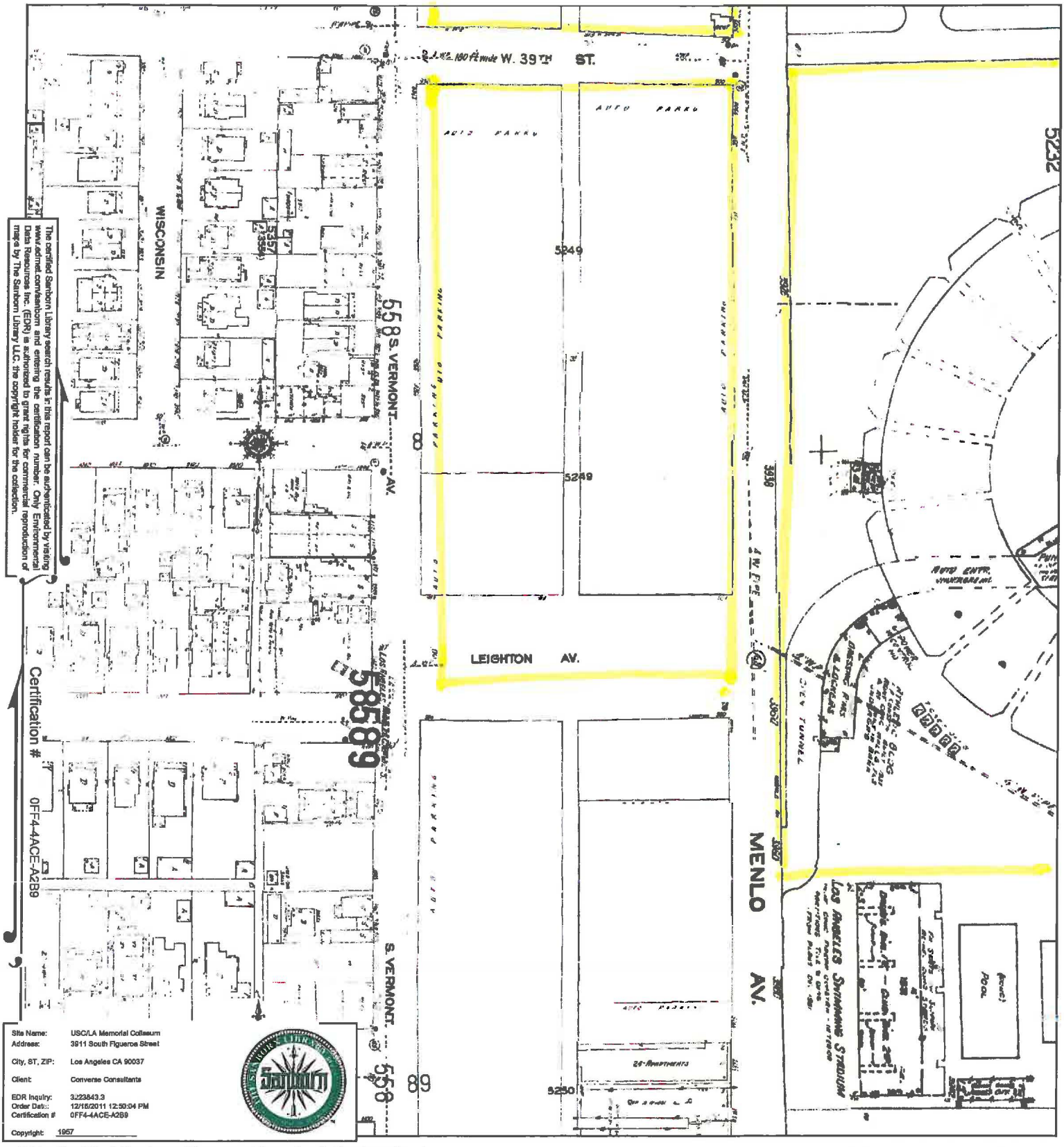


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Volume 5, Sheet 558
Volume 5, Sheet 588
Volume 5, Sheet 589

0 Feet 165 330 660

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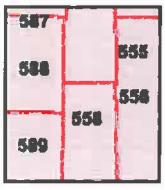
1957 Certified Sanborn Map



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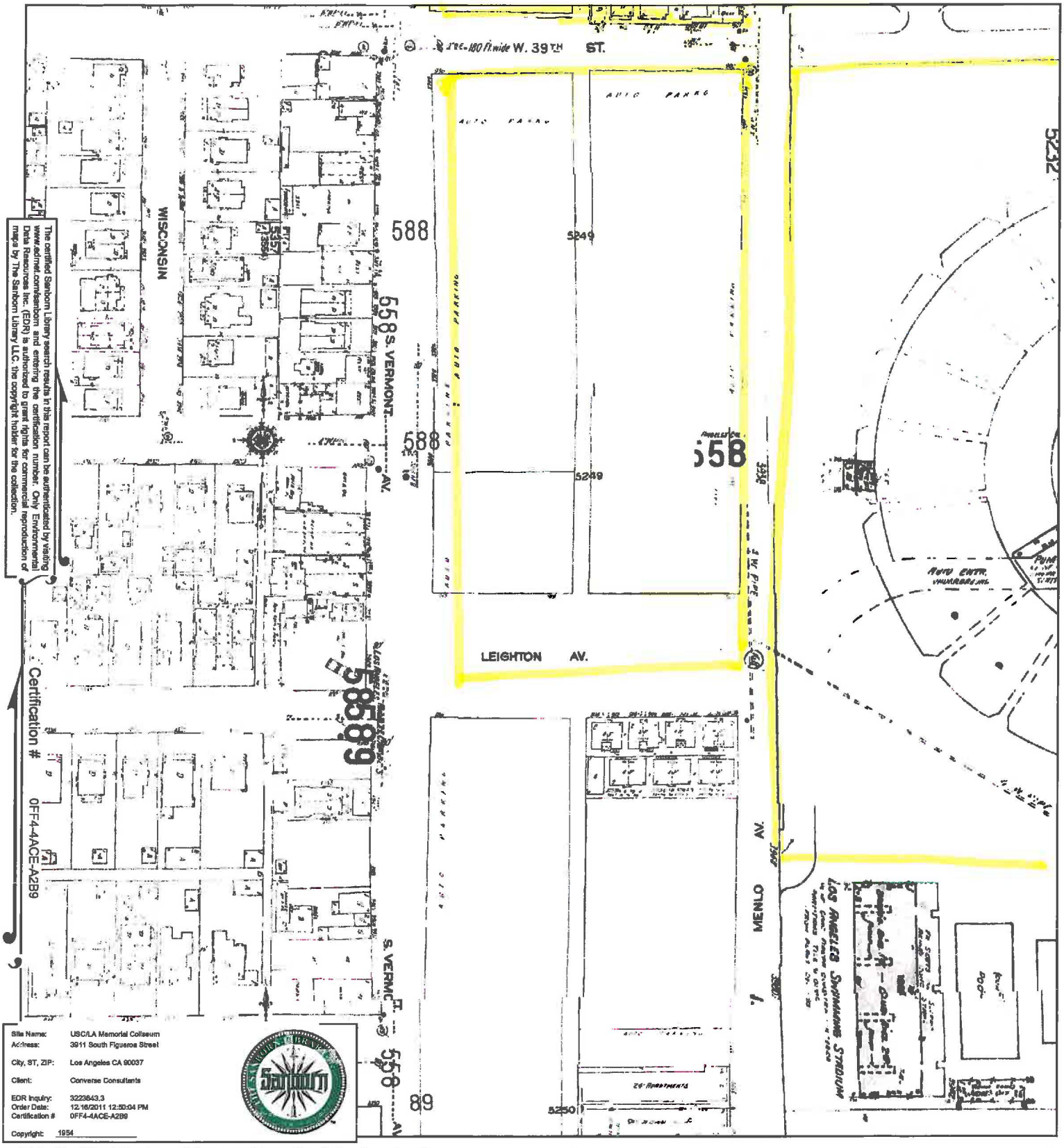


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Volume 5, Sheet 555

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1954 Certified Sanborn Map



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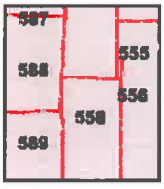
Certification # 0FF4-4ACE-A2B9

Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1954

This Certified Sanborn Map combines the following sheets.
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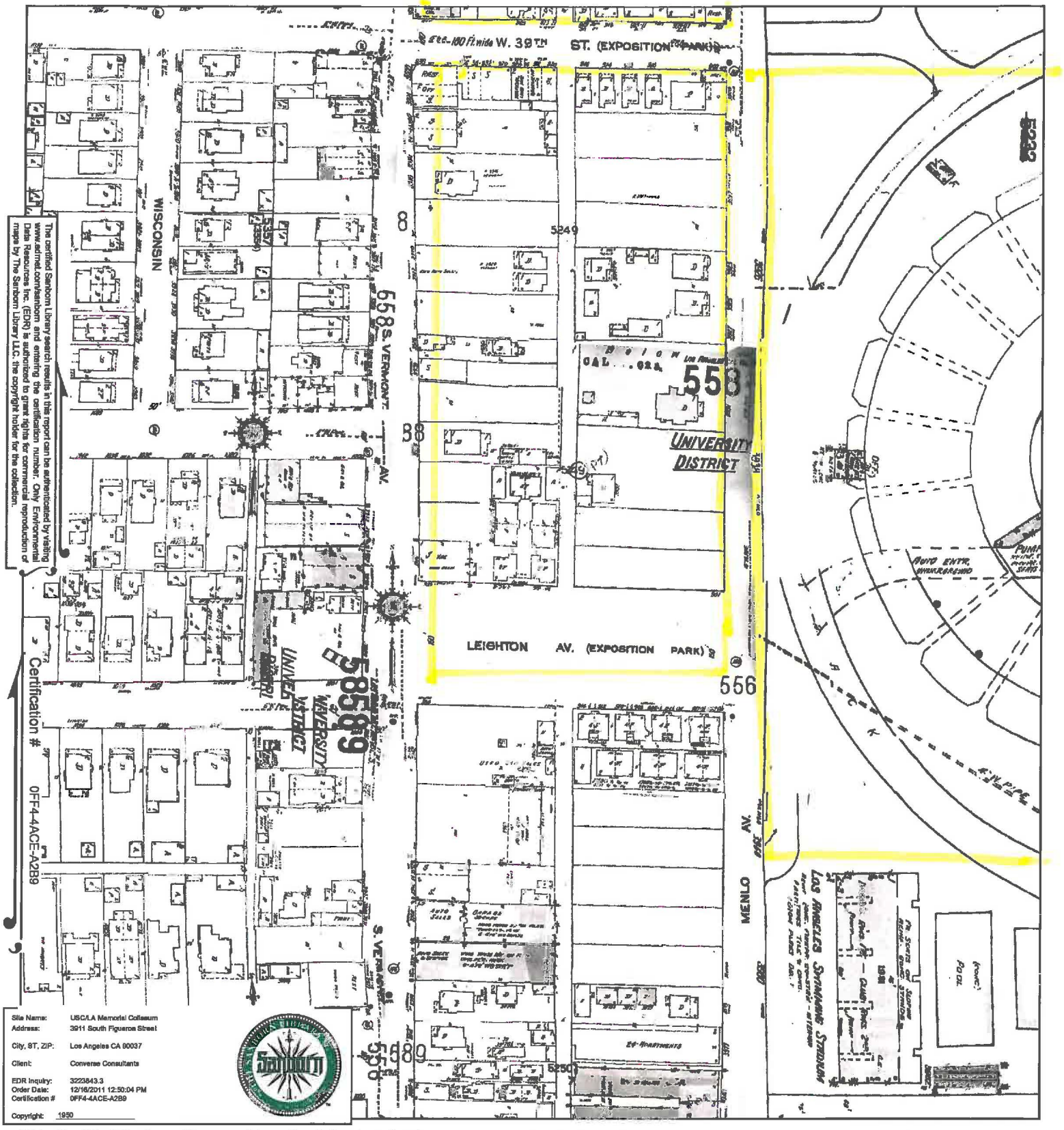




Volume 5, Sheet 555	Volume 5, Sheet 555
Volume 5, Sheet 556	Volume 5, Sheet 556
Volume 5, Sheet 558	Volume 5, Sheet 558
Volume 5, Sheet 588	Volume 5, Sheet 588
Volume 5, Sheet 589	Volume 5, Sheet 589

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1950 Certified Sanborn Map



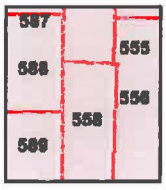
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Client:	Converse Consultants
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Order Date:	12/16/2011 12:50:04 PM
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Copyright:	1950

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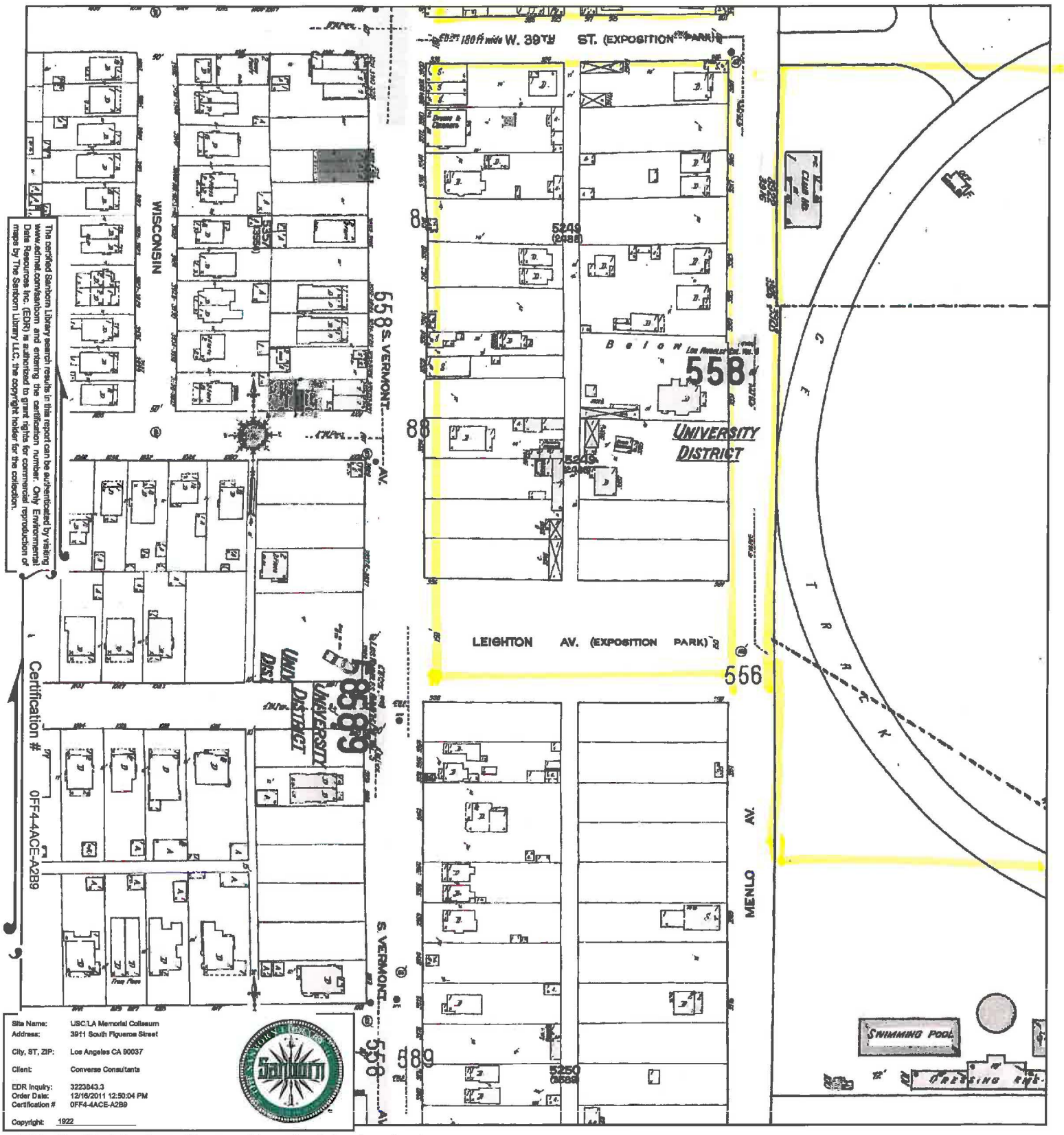


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Volume 5, Sheet 558
Volume 5, Sheet 588
Volume 5, Sheet 589

0 Feet 165 330 660

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1922 Certified Sanborn Map



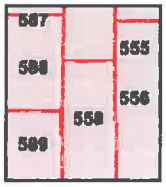
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Site Name:	USC:LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1922

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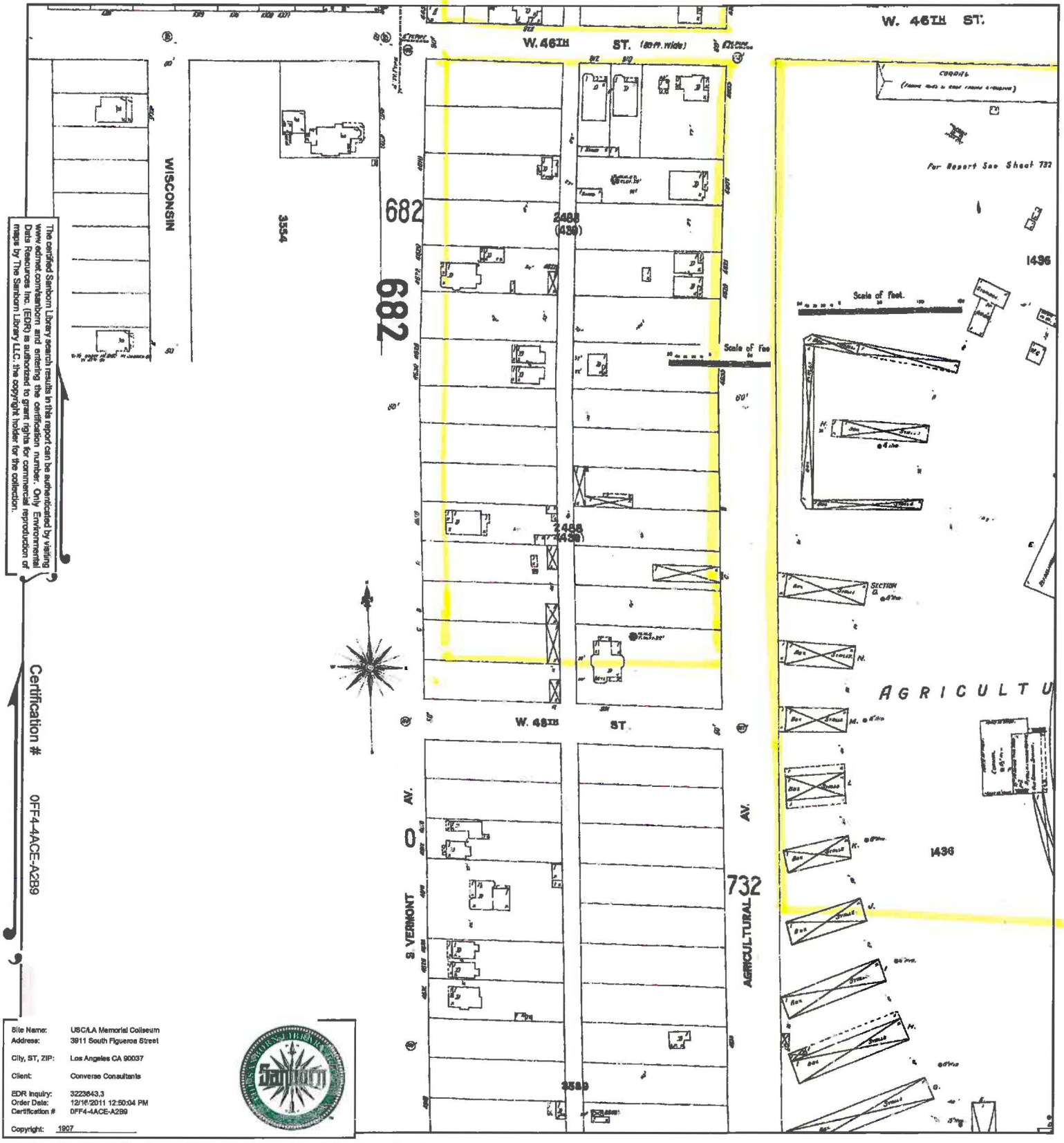


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Volume 5, Sheet 556
Volume 5, Sheet 558
Volume 5, Sheet 588
Volume 5, Sheet 589

0 Feet 165 330 660

N

1907 Certified Sanborn Map

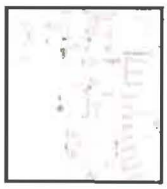


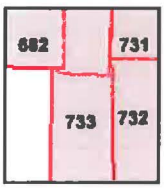
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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1907

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Volume 6, Sheet 731
Volume 6, Sheet 732
Volume 6, Sheet 733

0 Feet 165 330 660

N

USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

The compiete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Converse Consultants were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
Certification # 0FF4-4ACE-A2B9

Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	1900

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Sanborn Sheet Thumbnails

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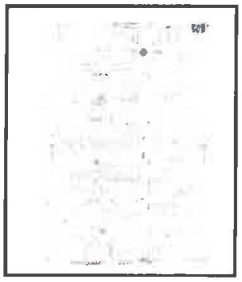
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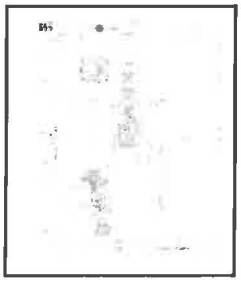
Volume 5, Sheet 586



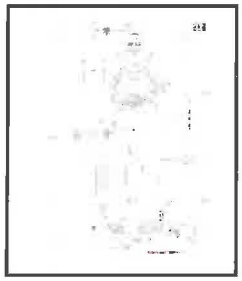
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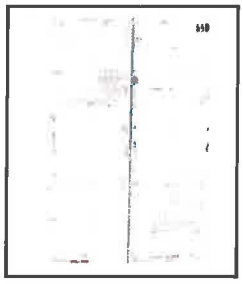
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Volume 5, Sheet 555

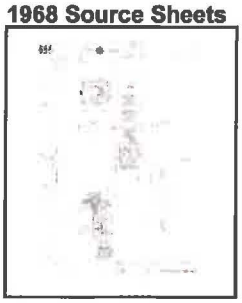


Volume 5, Sheet 556



Volume 5, Sheet 558

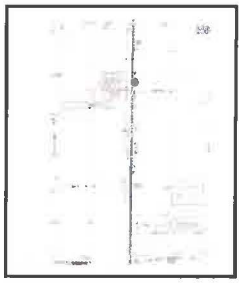
1968 Source Sheets



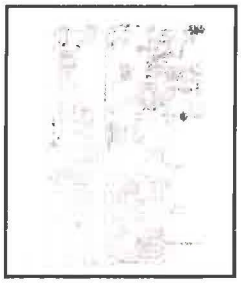
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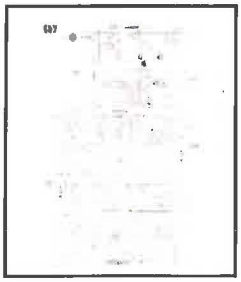
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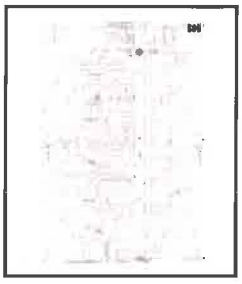
Volume 5, Sheet 558



Volume 5, Sheet 586

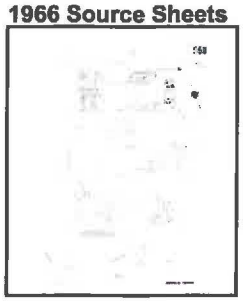


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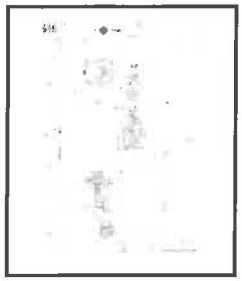


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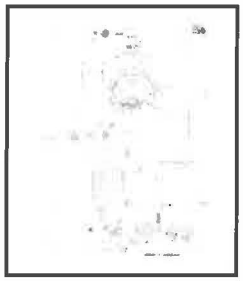
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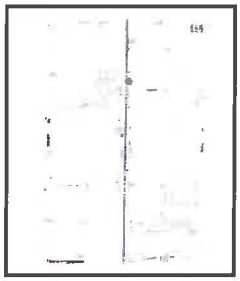
Volume 5, Sheet 550



Volume 5, Sheet 555



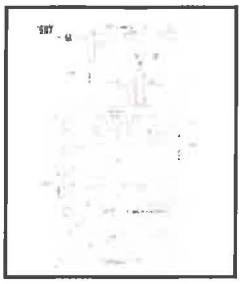
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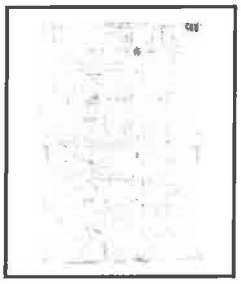
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Volume 5, Sheet 586

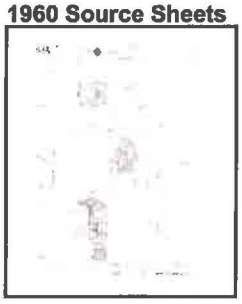


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Volume 5, Sheet 588

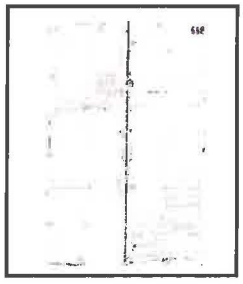
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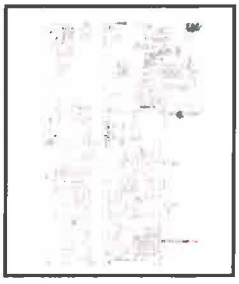
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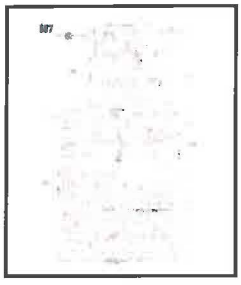
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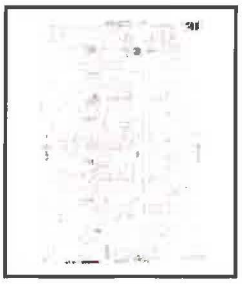
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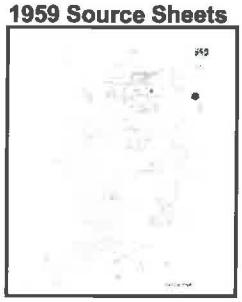


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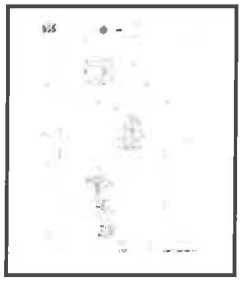


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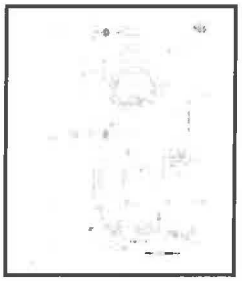
1959 Source Sheets



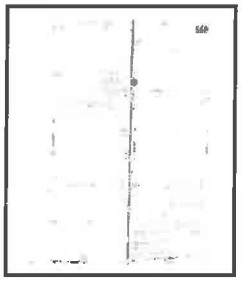
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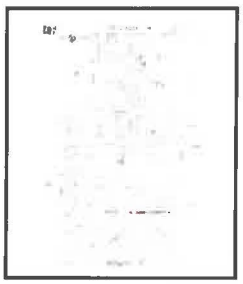
Volume 5, Sheet 556



Volume 5, Sheet 558



Volume 5, Sheet 586

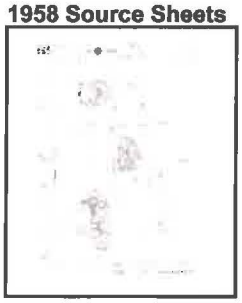


Volume 5, Sheet 587



Volume 5, Sheet 588

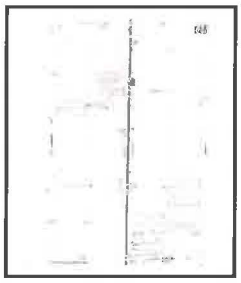
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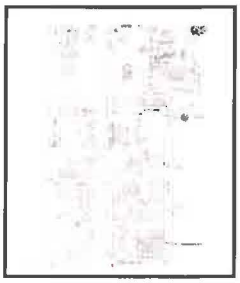
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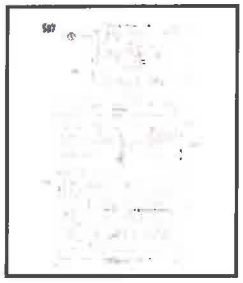
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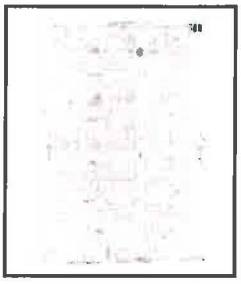
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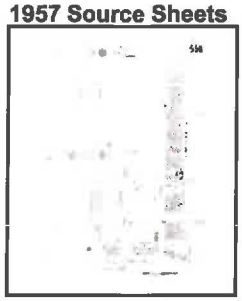


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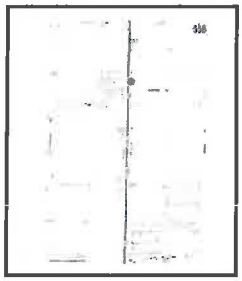


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1957 Source Sheets



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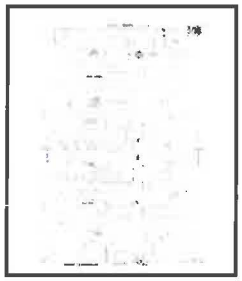
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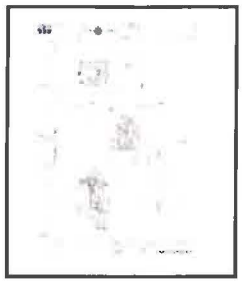
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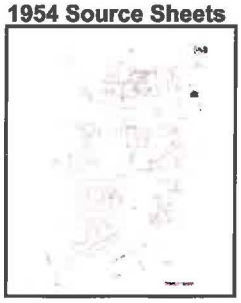


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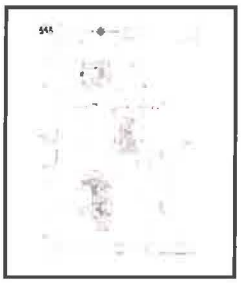


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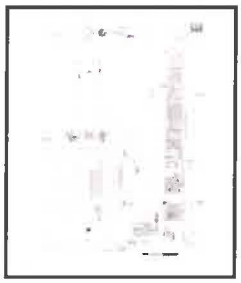
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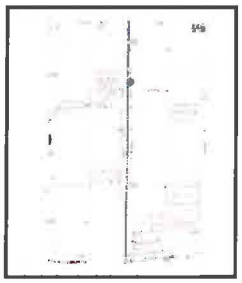
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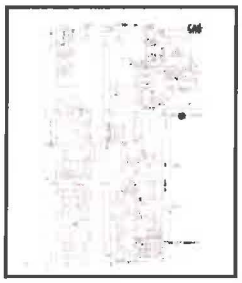
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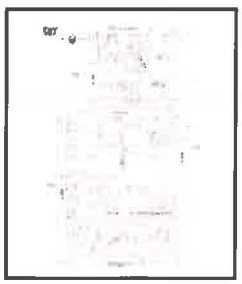
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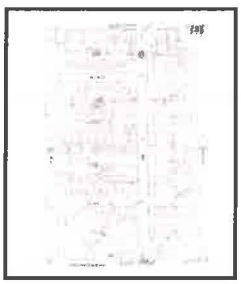
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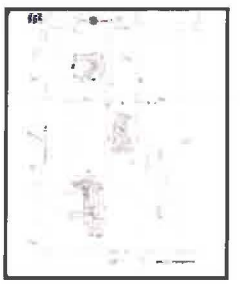
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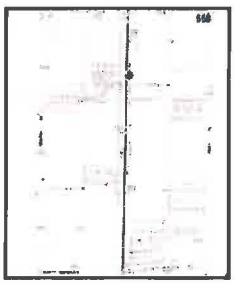
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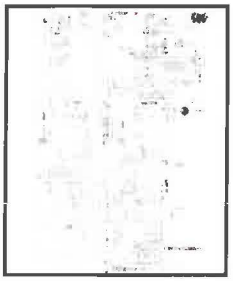
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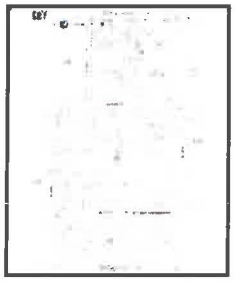
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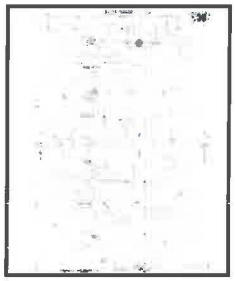
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1950 Source Sheets



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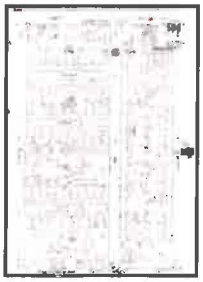
Volume 5, Sheet 558



Volume 5, Sheet 586



Volume 5, Sheet 587

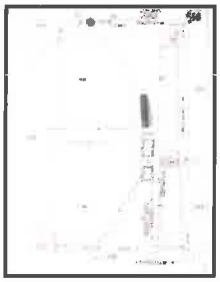


Volume 5, Sheet 588

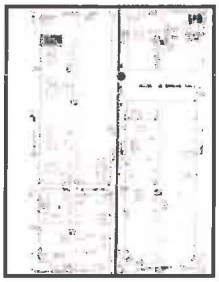
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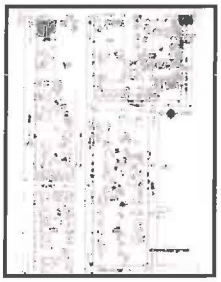
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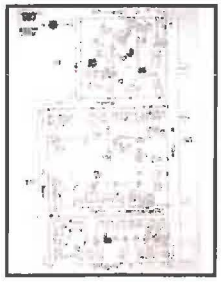
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1907 Source Sheets



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Volume 6, Sheet 682

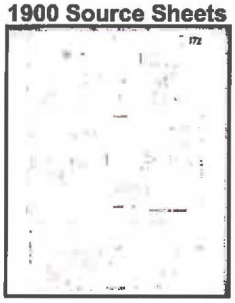


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Volume 6, Sheet 733

1900 Source Sheets

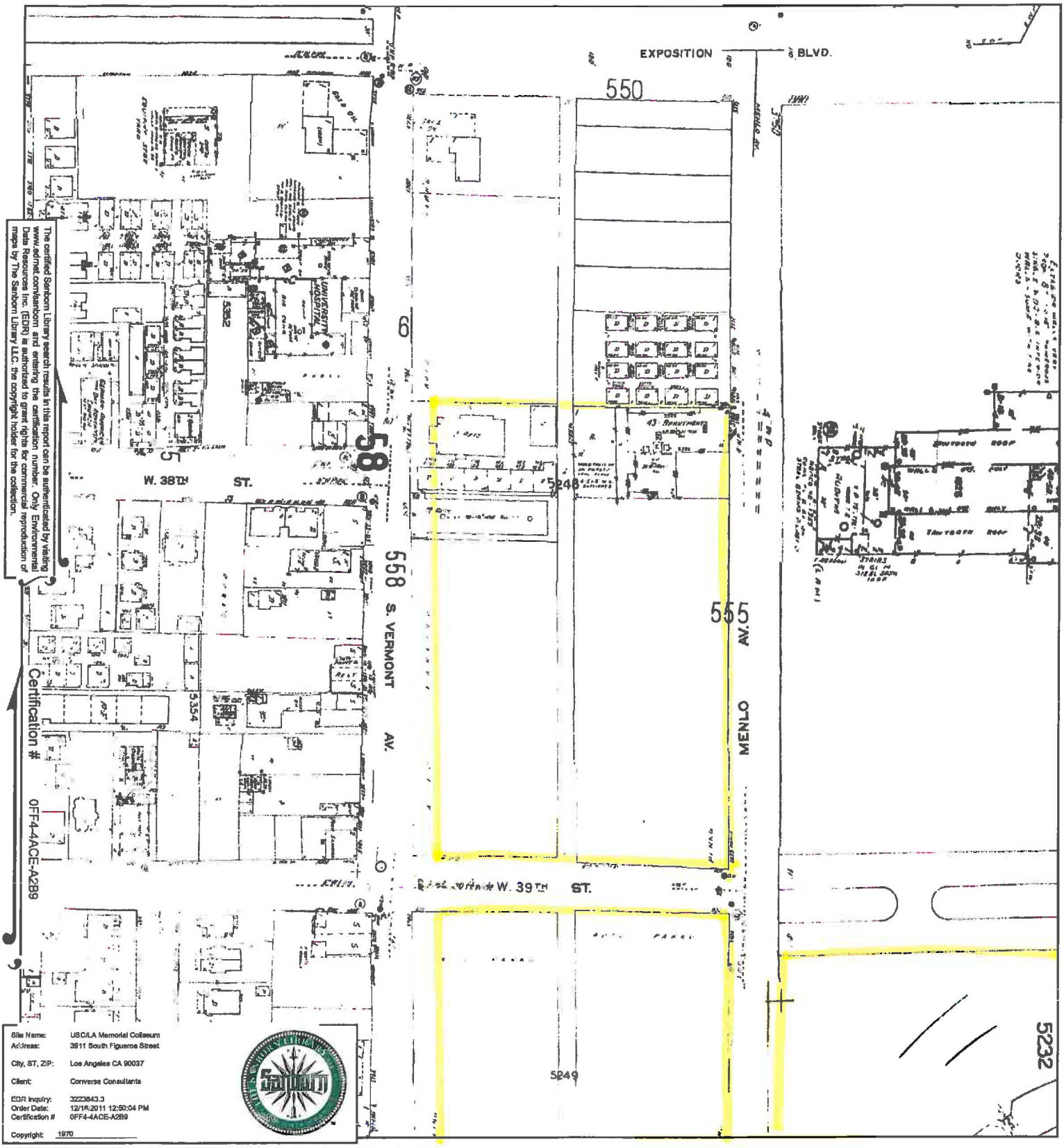


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1970 Certified Sanborn Map



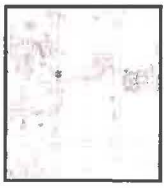
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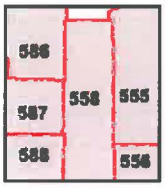
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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1970

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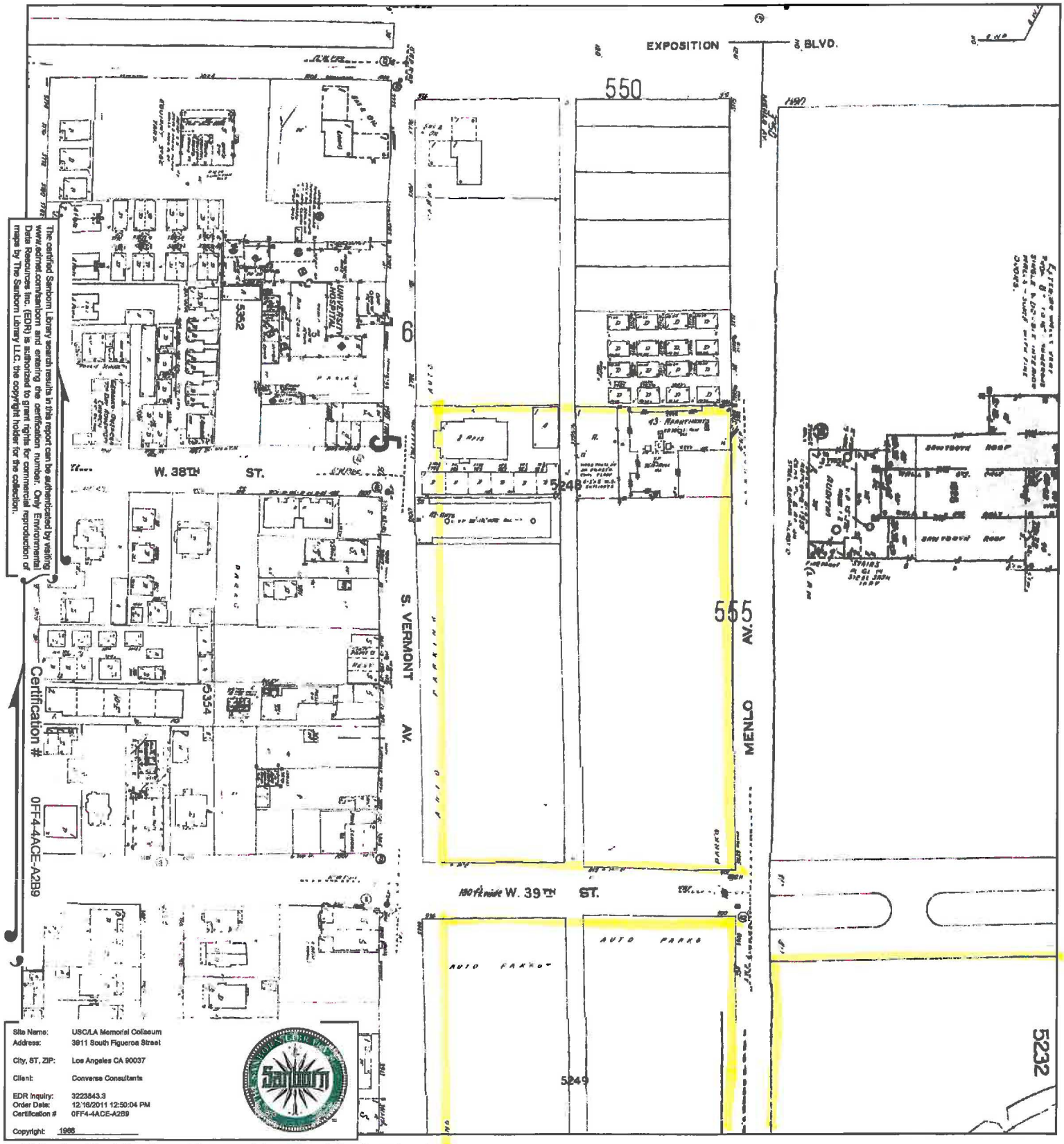




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1968 Certified Sanborn Map



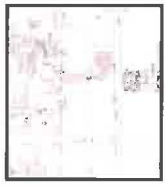
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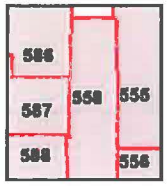
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Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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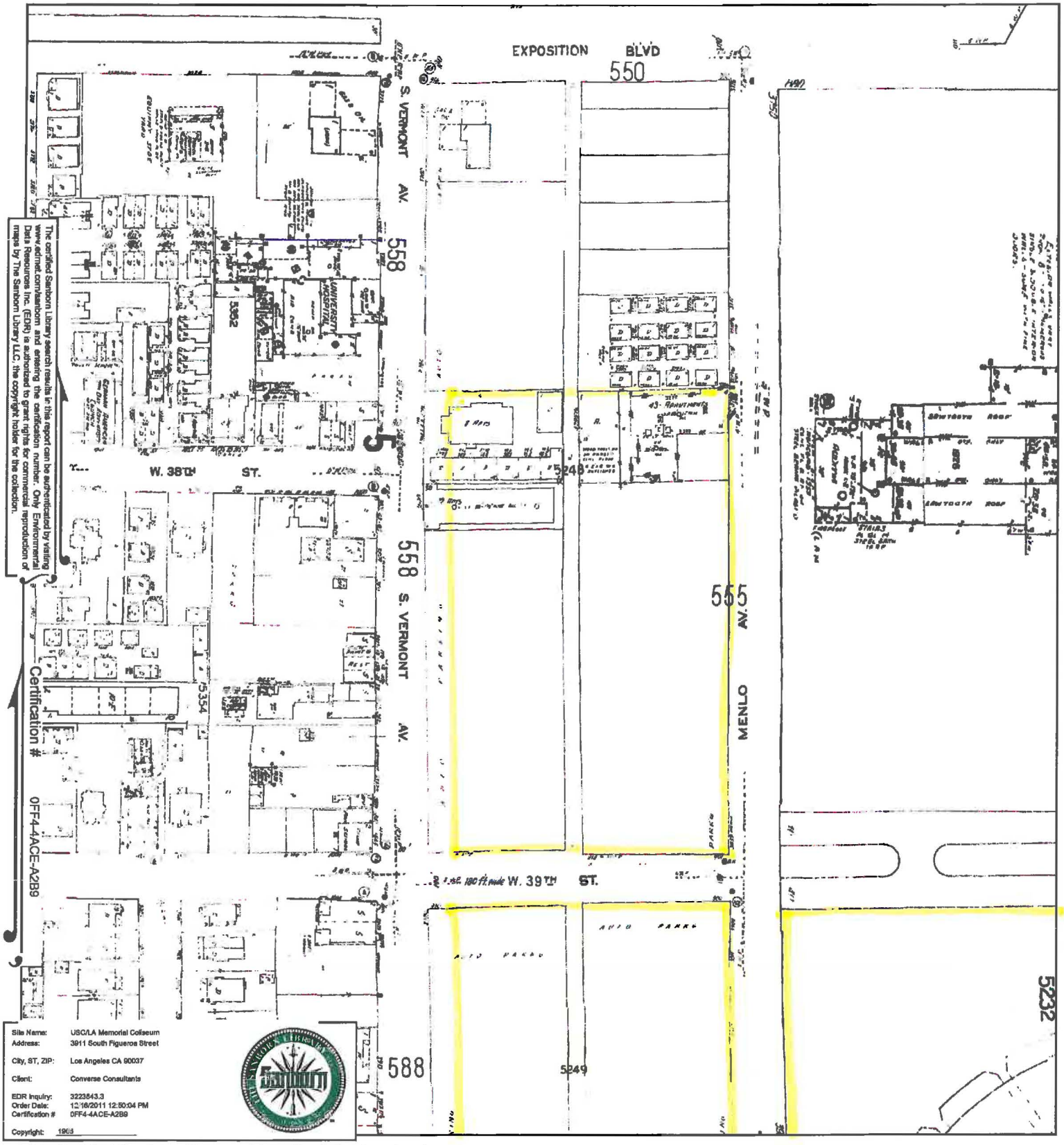




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1966 Certified Sanborn Map



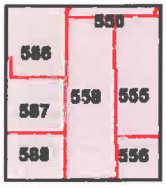
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Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
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Copyright:	1966

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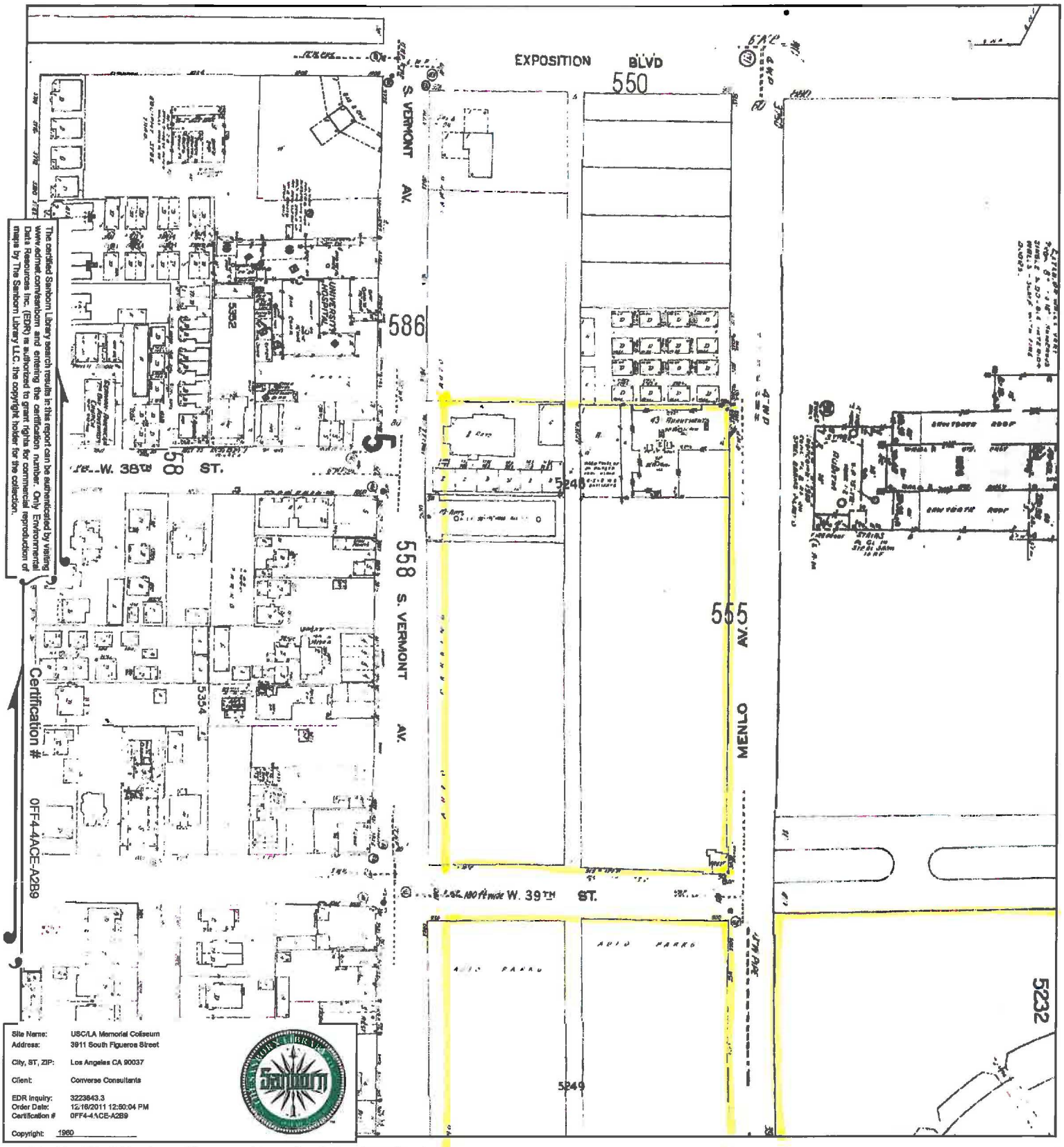




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1960 Certified Sanborn Map



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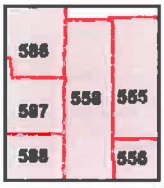
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City, ST, ZIP:	Los Angeles CA 90037
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Copyright:	1960

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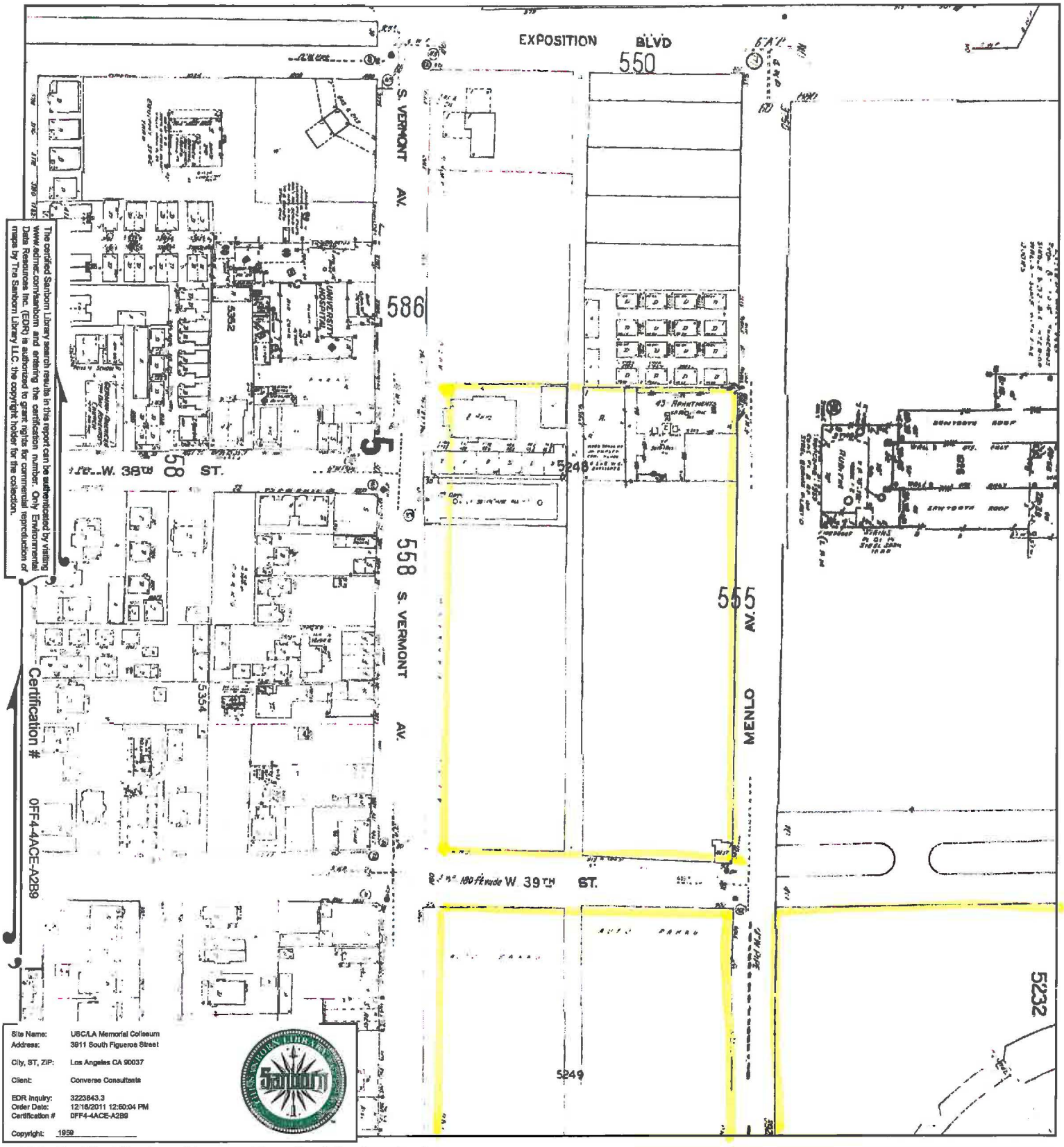




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1959 Certified Sanborn Map



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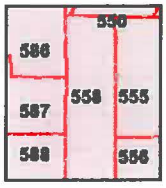
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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Copyright:	1959

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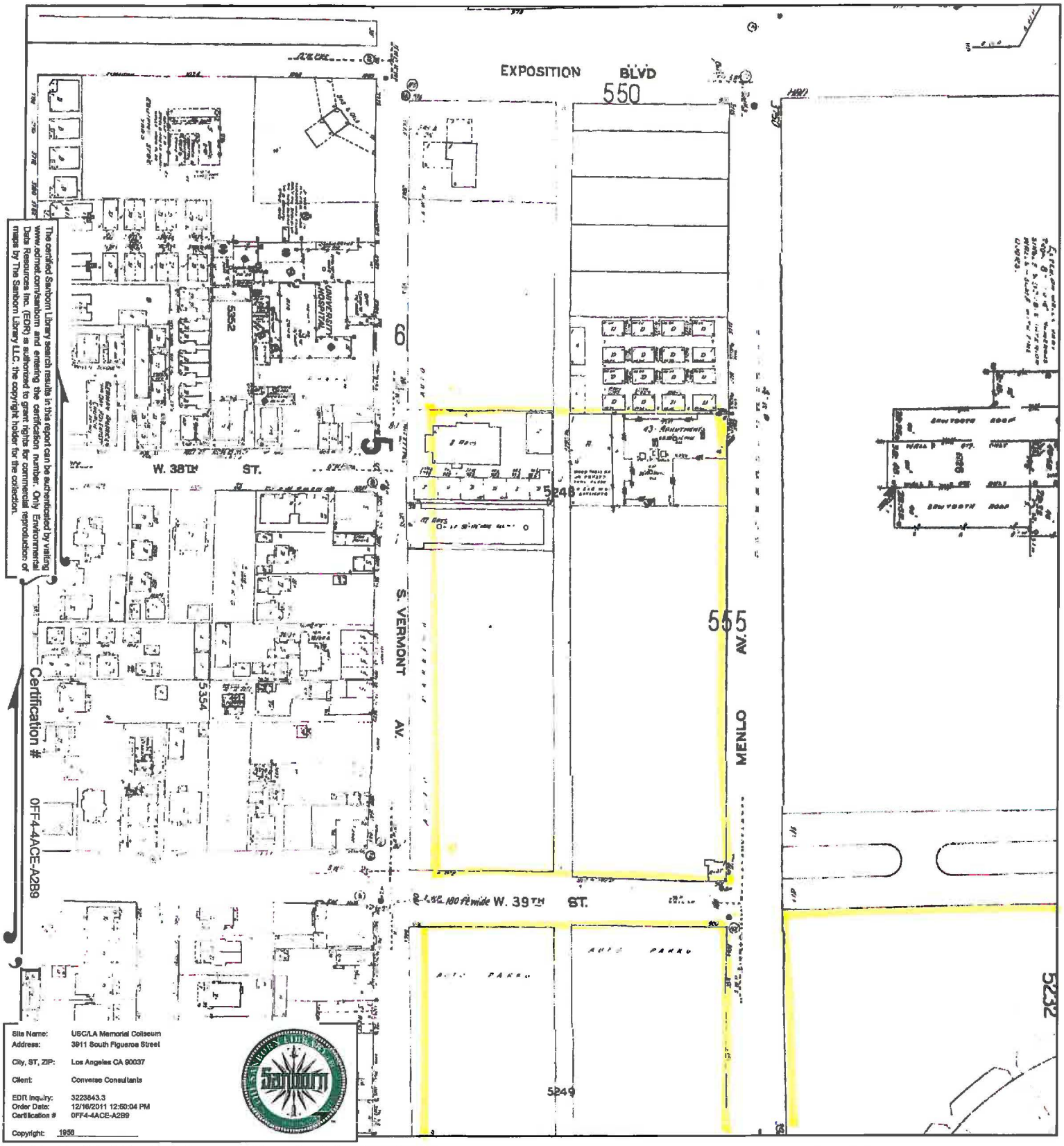




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1958 Certified Sanborn Map



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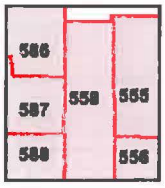
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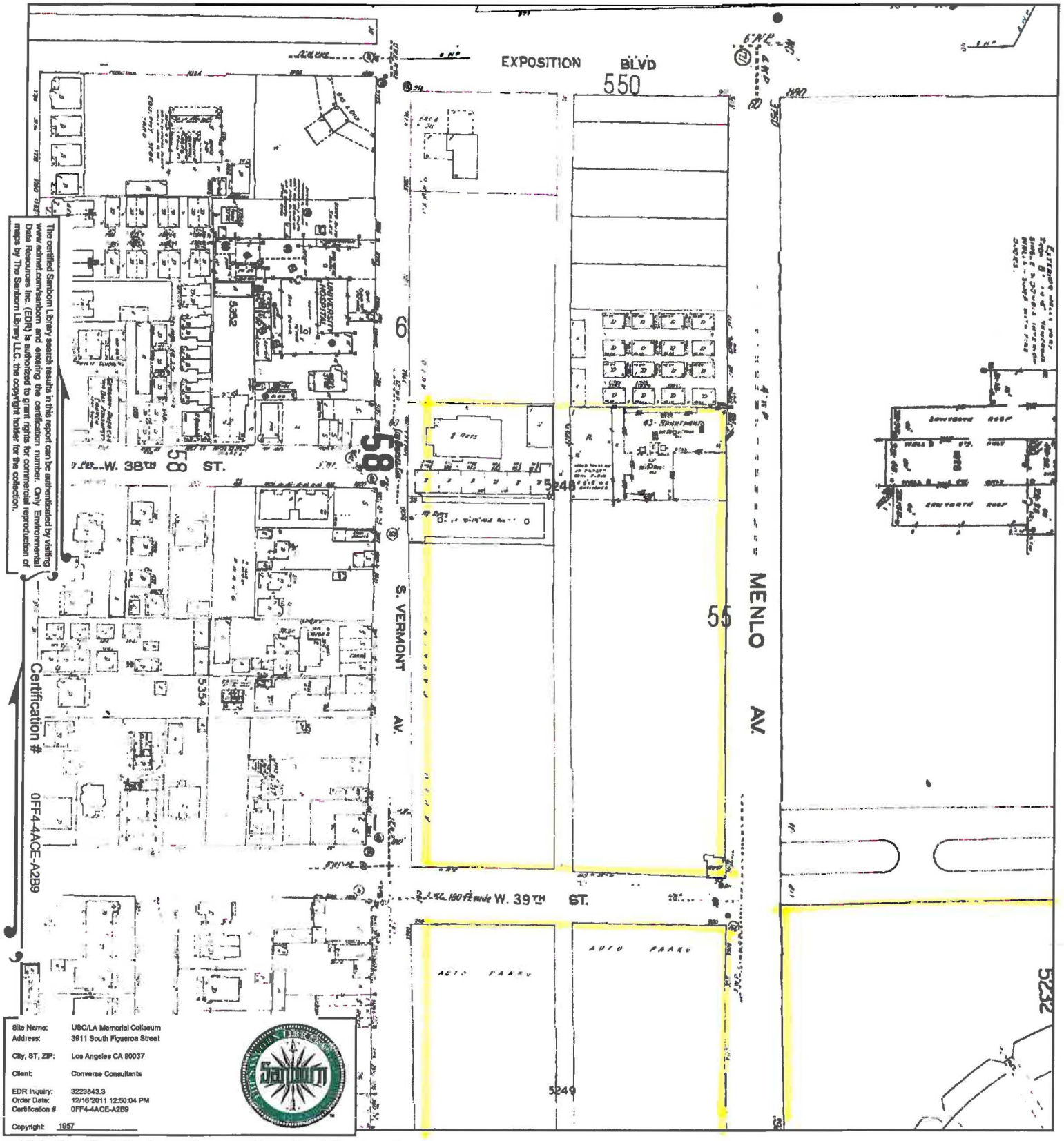




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1957 Certified Sanborn Map



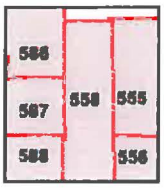
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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
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Certification #	0FF4-4ACE-A2B9
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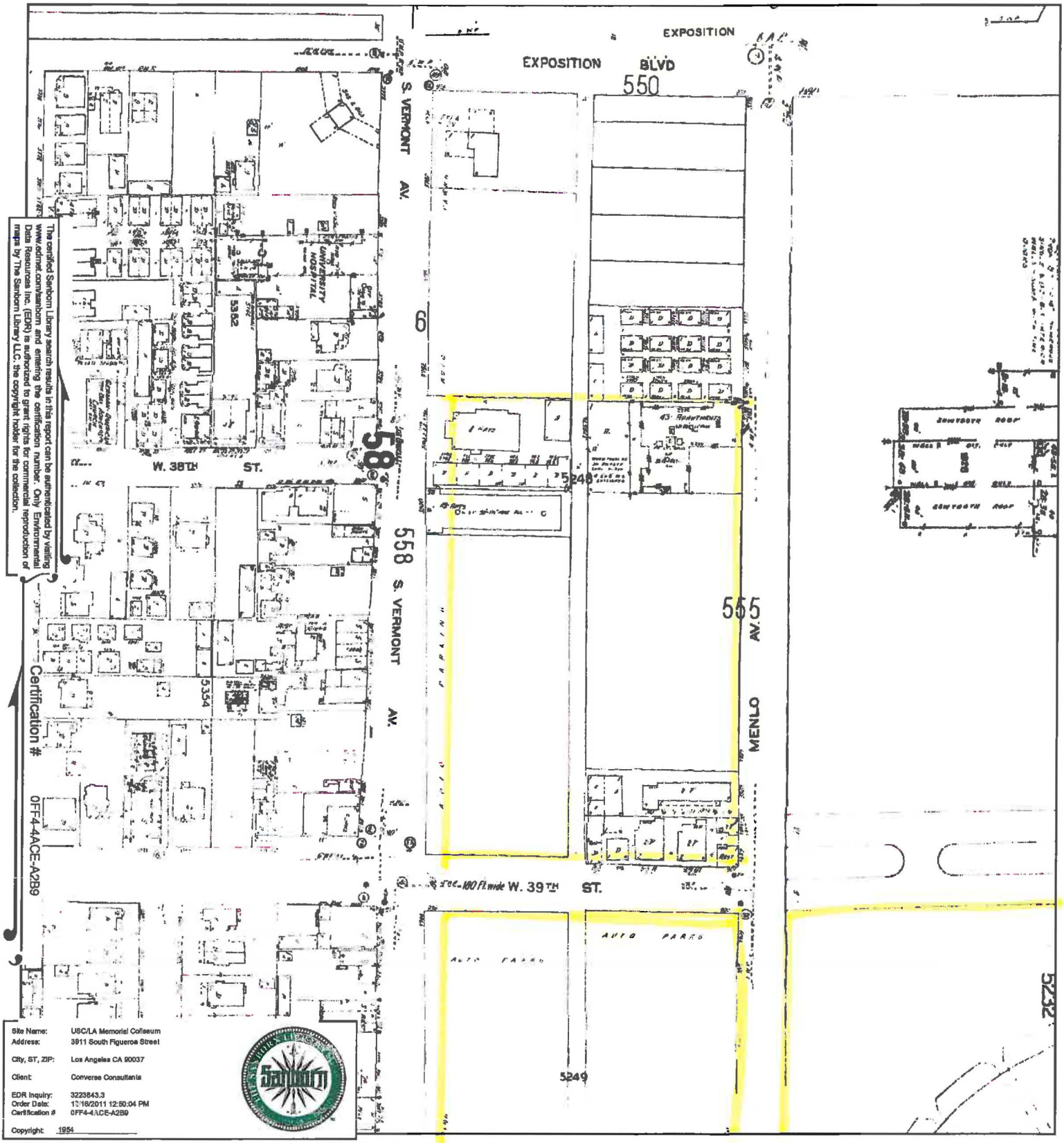


Volume 5, Sheet 556
Volume 5, Sheet 558
Volume 5, Sheet 586
Volume 5, Sheet 587
Volume 5, Sheet 588
Volume 5, Sheet 555

0 Feet 165 330 660

N

1954 Certified Sanborn Map

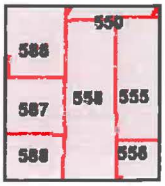


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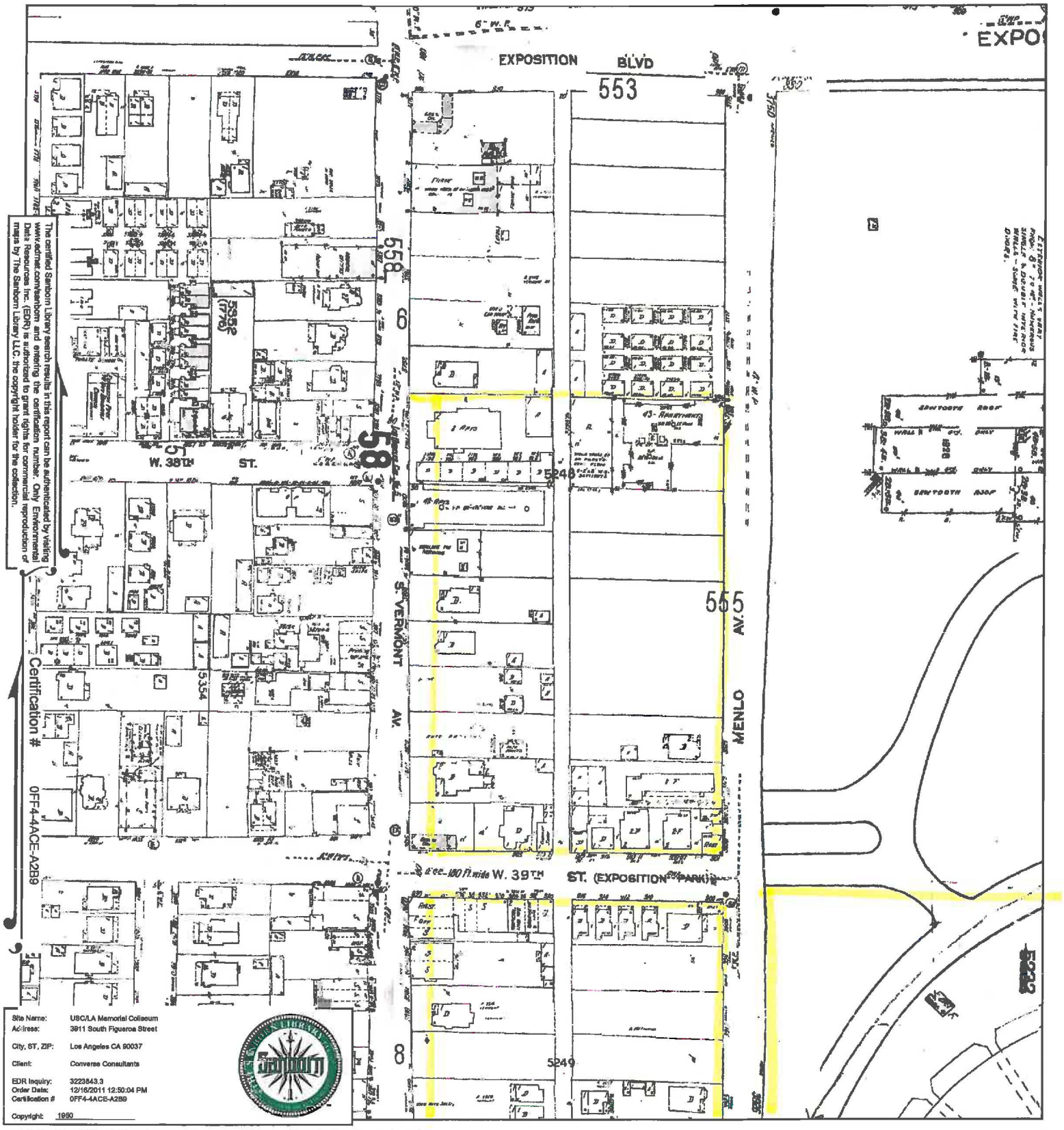


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Volume 5, Sheet 555	Volume 5, Sheet 588	Volume 5, Sheet 587
Volume 5, Sheet 556	Volume 5, Sheet 555	Volume 5, Sheet 588
Volume 5, Sheet 558	Volume 5, Sheet 556	
Volume 5, Sheet 586	Volume 5, Sheet 558	

0 Feet 165 330 660

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1950 Certified Sanborn Map



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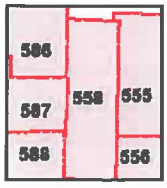
Certification # 0FF4-4ACE-A2B9

Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
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Certification #	0FF4-4ACE-A2B9
Copyright:	1950

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0 Feet 165 330 660

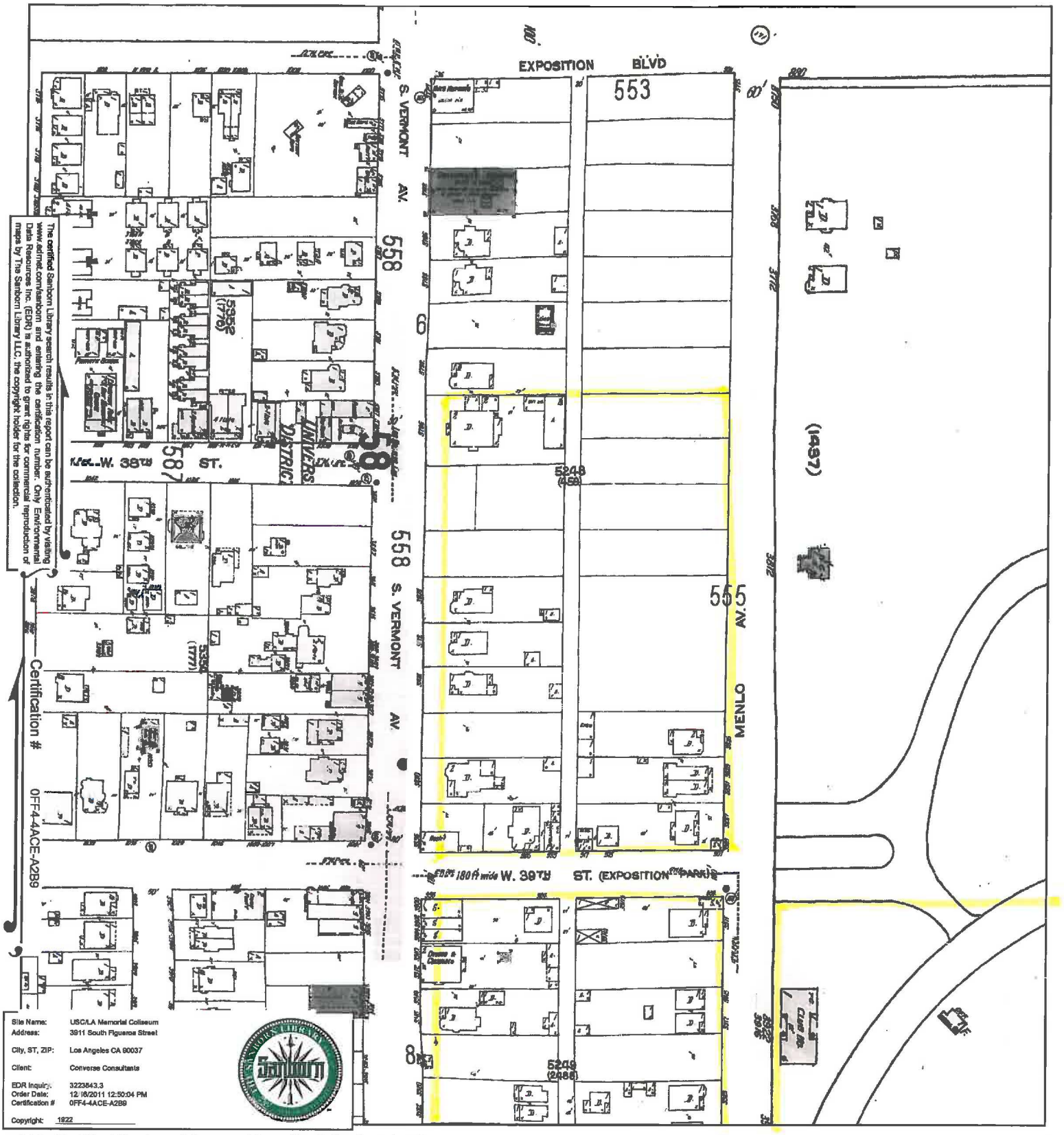




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Volume 5, Sheet 558
Volume 5, Sheet 586
Volume 5, Sheet 587
Volume 5, Sheet 588

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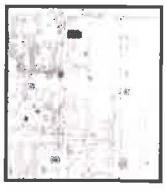
1922 Certified Sanborn Map

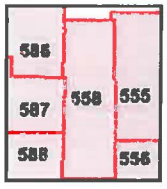


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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1922

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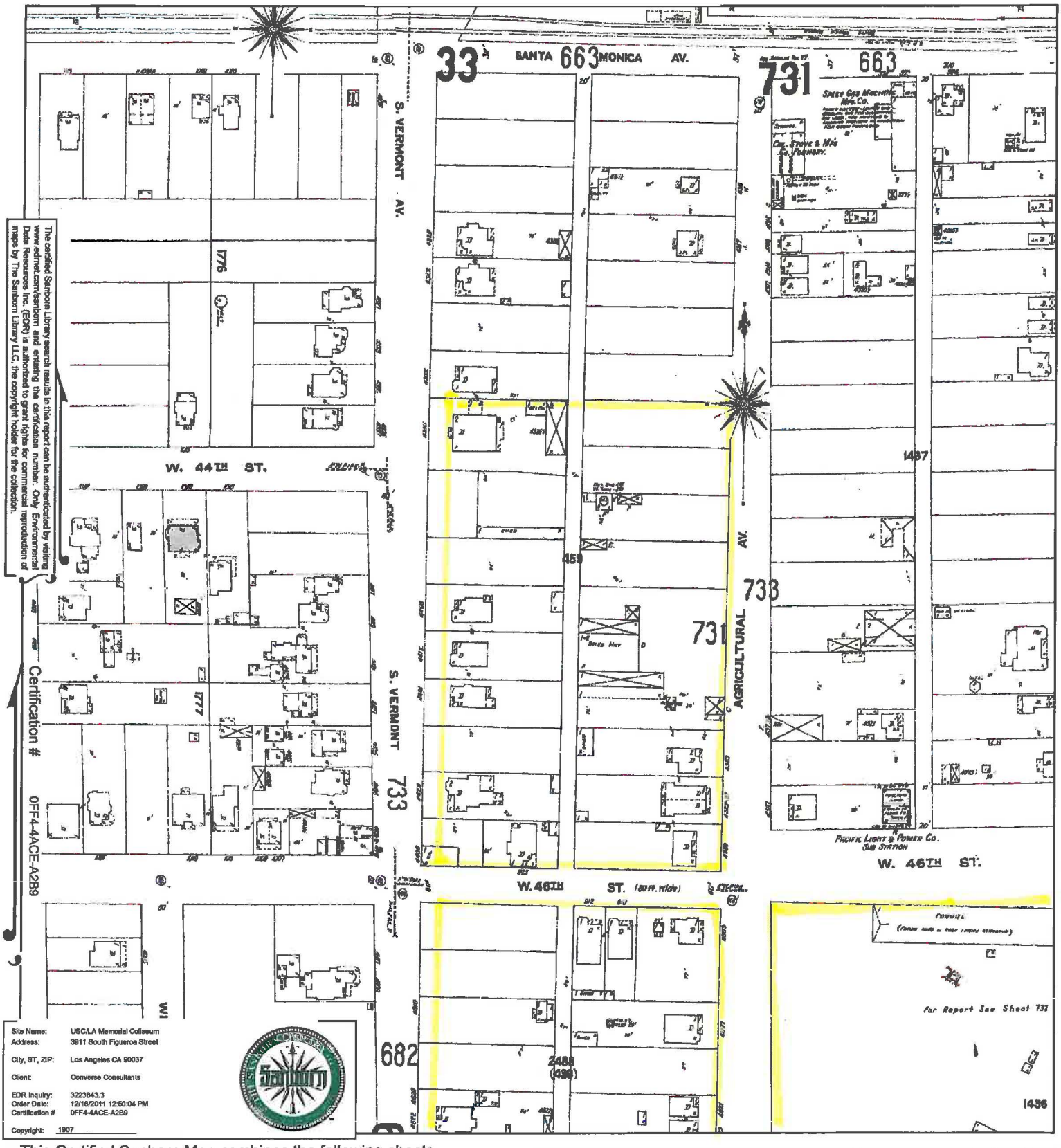


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Volume 5, Sheet 558
Volume 5, Sheet 586
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Volume 5, Sheet 588

0 Feet 165 330 660

N

1907 Certified Sanborn Map



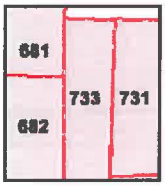
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Site Name:	USC/LA Memorial Coliseum
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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1907

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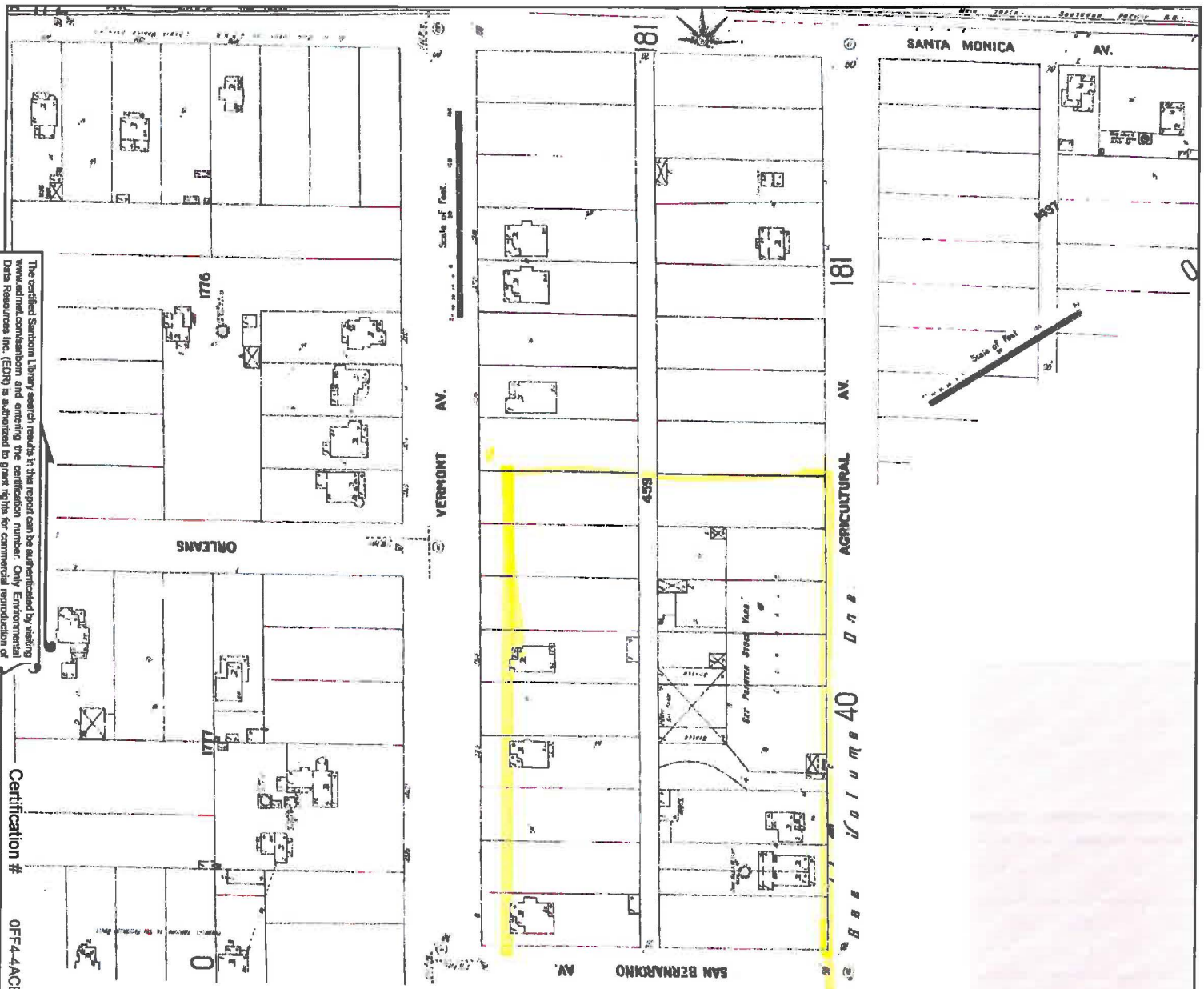


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Volume 6, Sheet 682
Volume 6, Sheet 731
Volume 6, Sheet 733

0 Feet 165 330 660

N

1900 Certified Sanborn Map

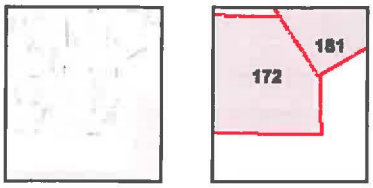


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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 11:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1900

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Volume 4, Sheet 172
Volume 4, Sheet 181

0 Feet 165 330 660

N

USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

The compiete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Converse Consultants were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

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Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
Certification # 0FF4-4ACE-A2B9

Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Sanborn Sheet Thumbnails

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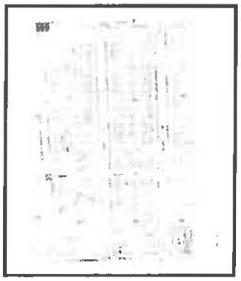
1970 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 559

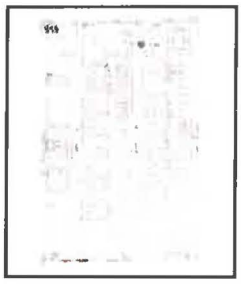


Volume 5, Sheet 569

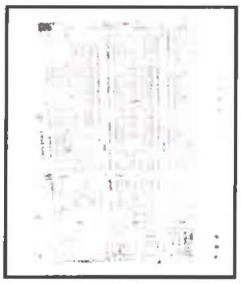
1968 Source Sheets



Volume 5, Sheet 556

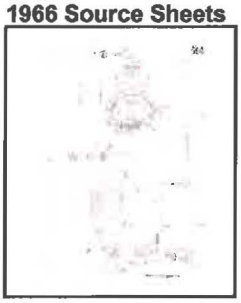


Volume 5, Sheet 559

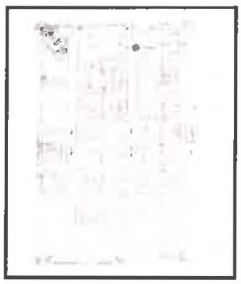


Volume 5, Sheet 569

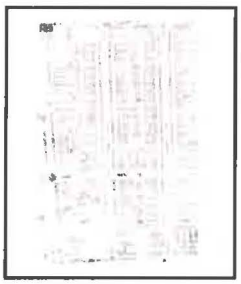
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Volume 5, Sheet 556



Volume 5, Sheet 559

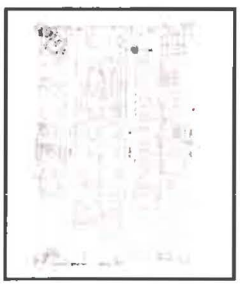


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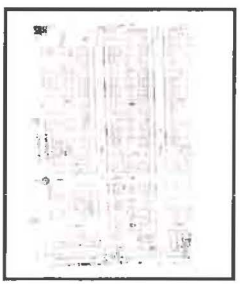
1960 Source Sheets



Volume 5, Sheet 556



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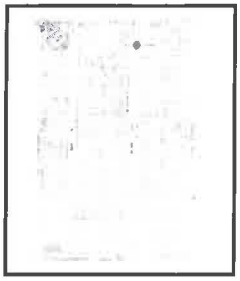


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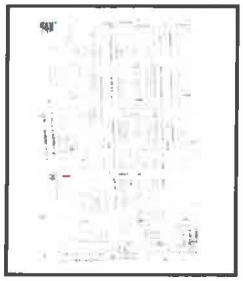
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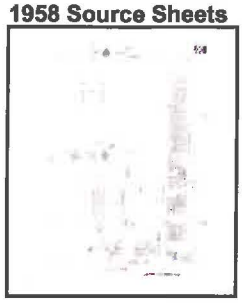


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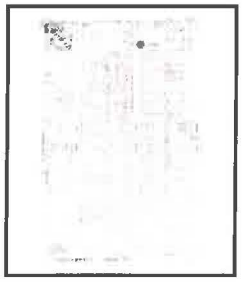


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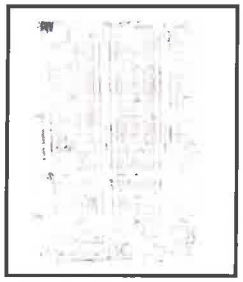
1958 Source Sheets



Volume 5, Sheet 556

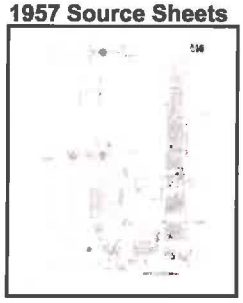


Volume 5, Sheet 559



Volume 5, Sheet 569

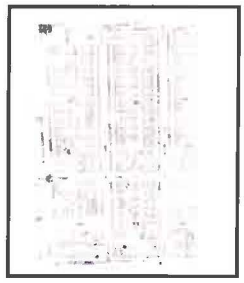
1957 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 559

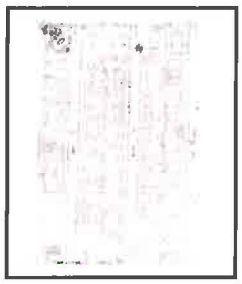


Volume 5, Sheet 569

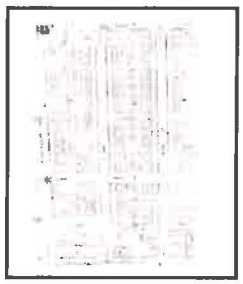
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Volume 5, Sheet 556



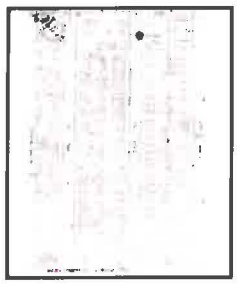
Volume 5, Sheet 559



Volume 5, Sheet 569



Volume 5, Sheet 556



Volume 5, Sheet 559



Volume 5, Sheet 569

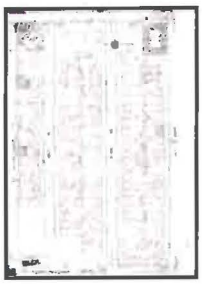
1950 Source Sheets



Volume 5, Sheet 569

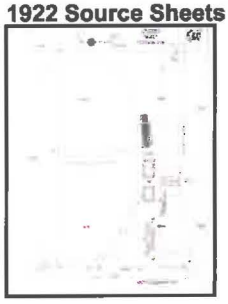


Volume 5, Sheet 556

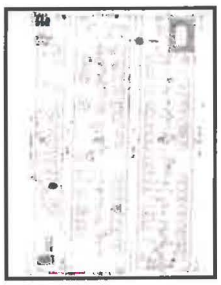


Volume 5, Sheet 559

1922 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 559



Volume 5, Sheet 569

1907 Source Sheets

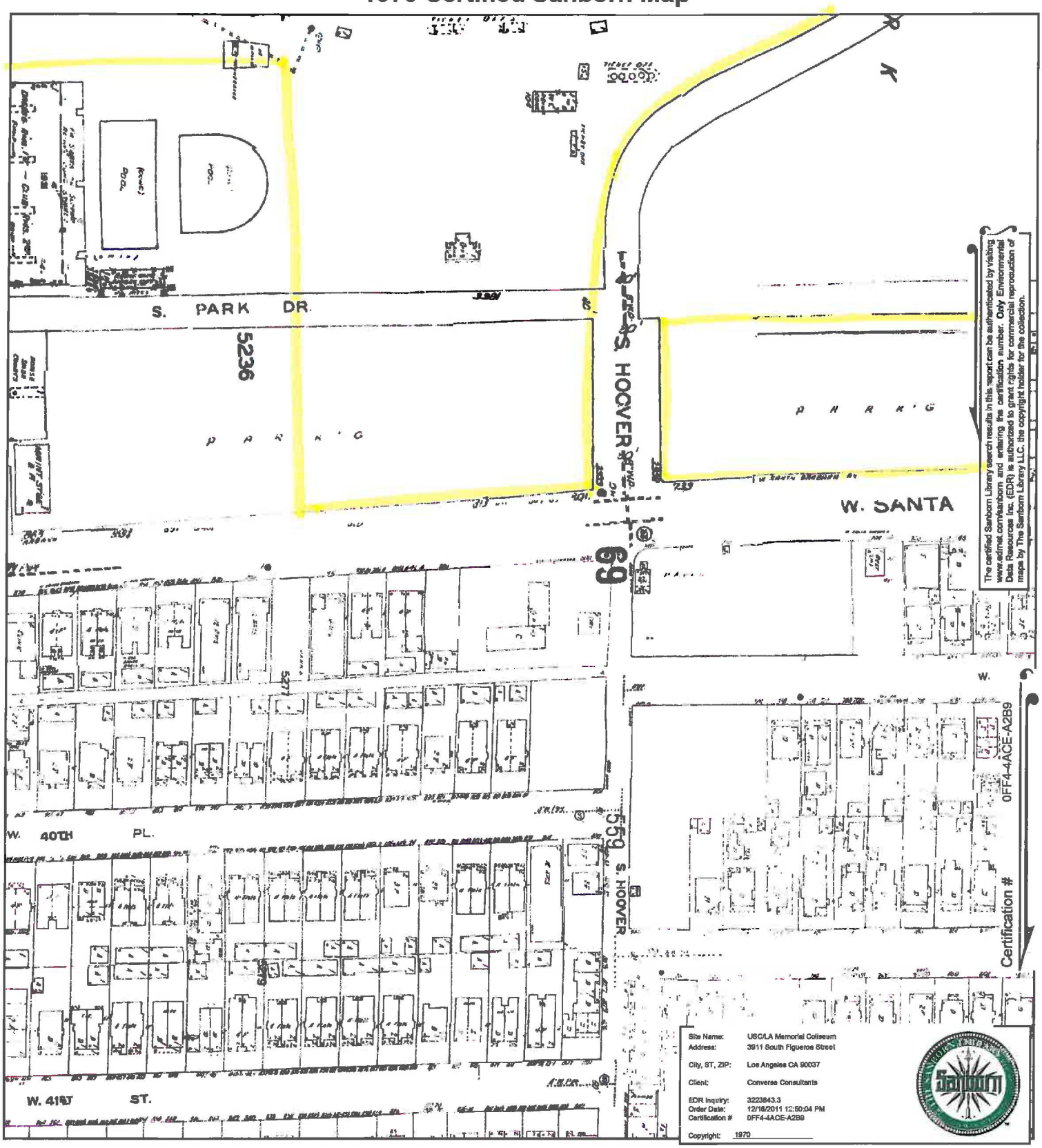


Volume 6, Sheet 732



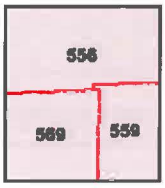
Volume 6, Sheet 734

1970 Certified Sanborn Map



This Certified Sanborn Map combines the following sheets.
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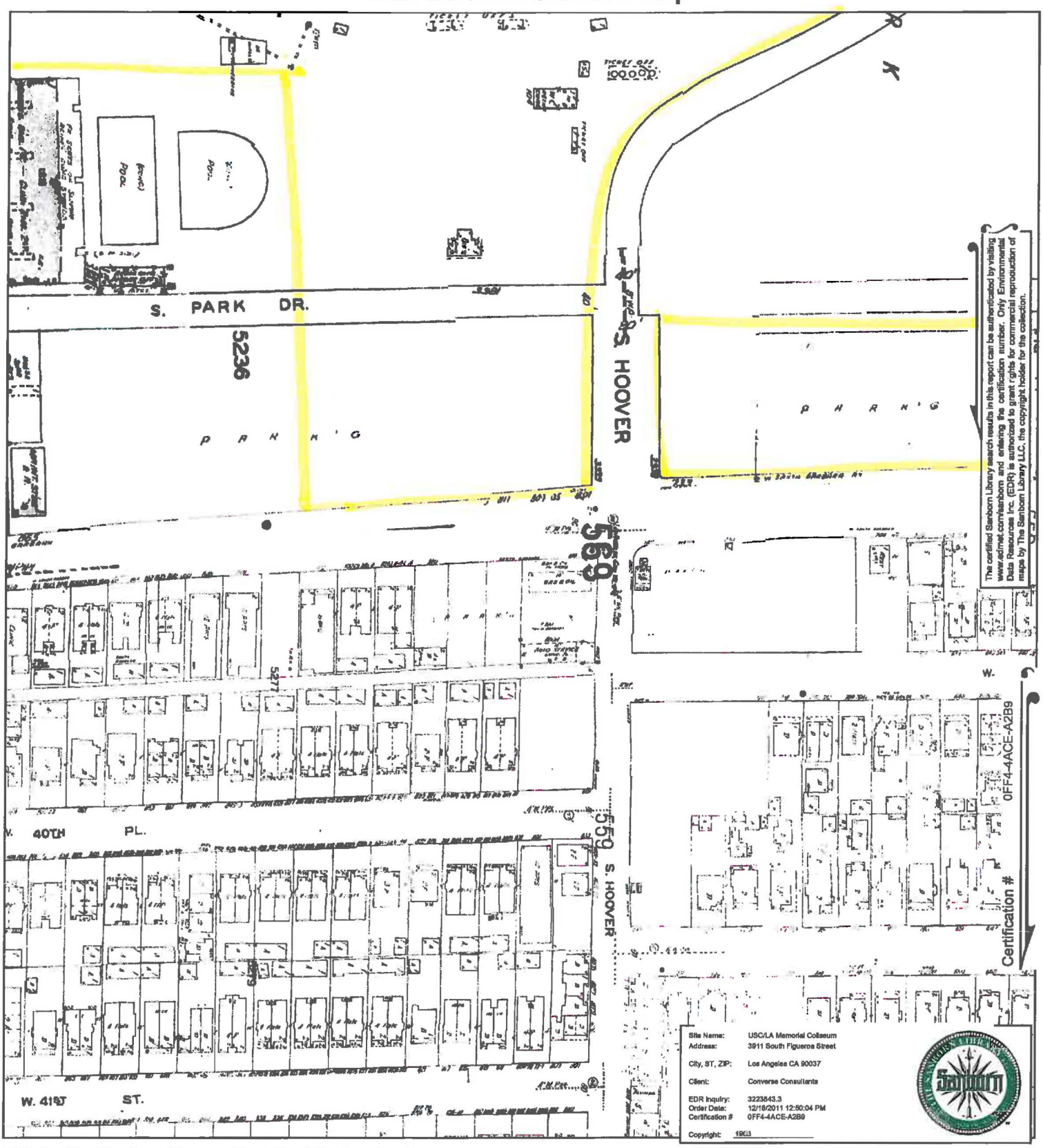


Volume 5, Sheet 556
Volume 5, Sheet 559
Volume 5, Sheet 569

0 Feet 165 330 660

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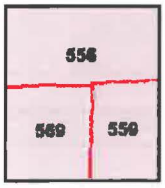
1968 Certified Sanborn Map



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This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.



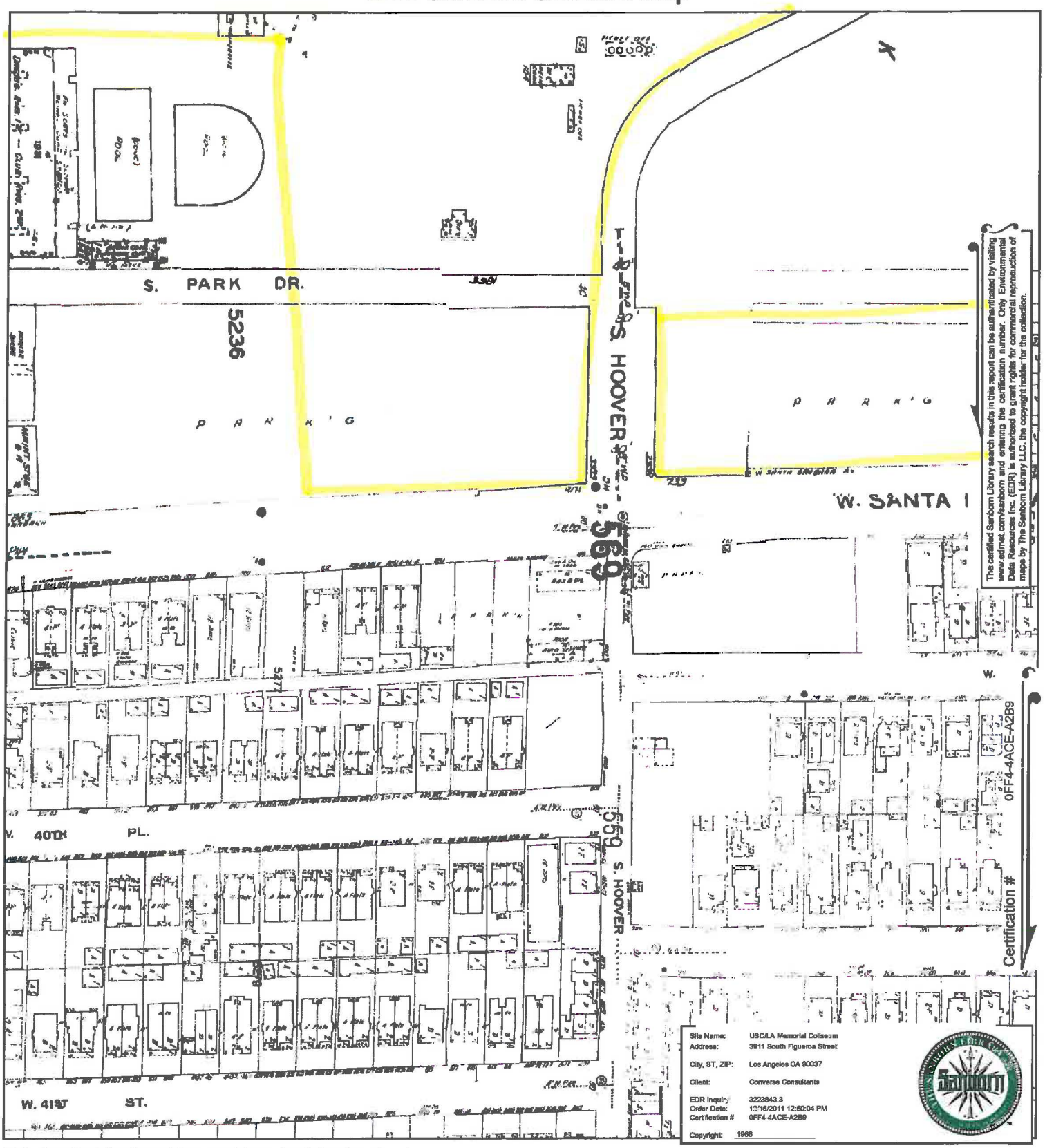


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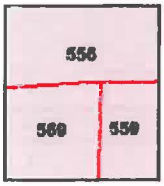
1966 Certified Sanborn Map



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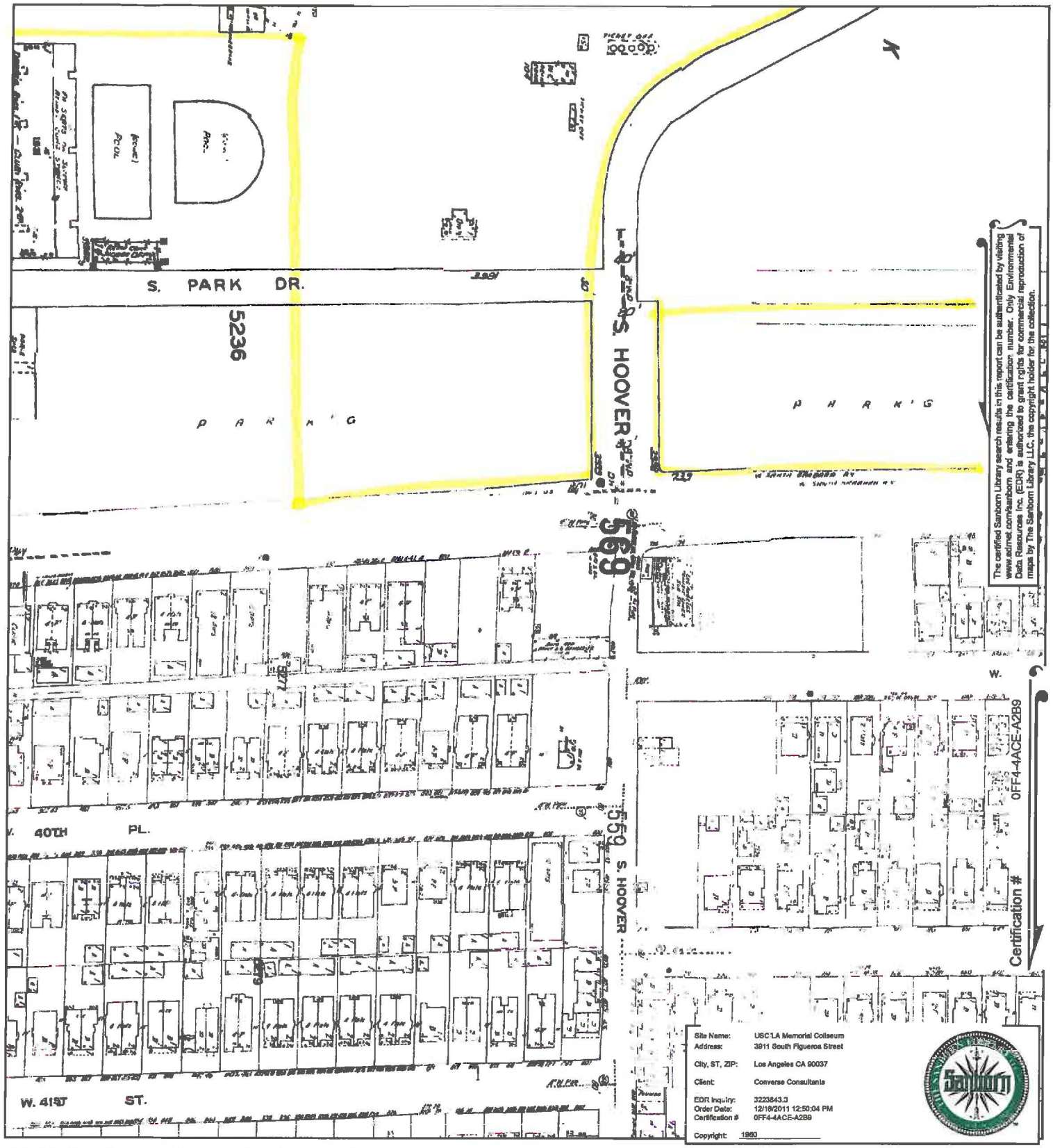


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Volume 5, Sheet 569

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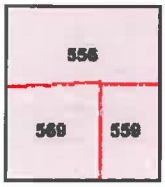
1960 Certified Sanborn Map



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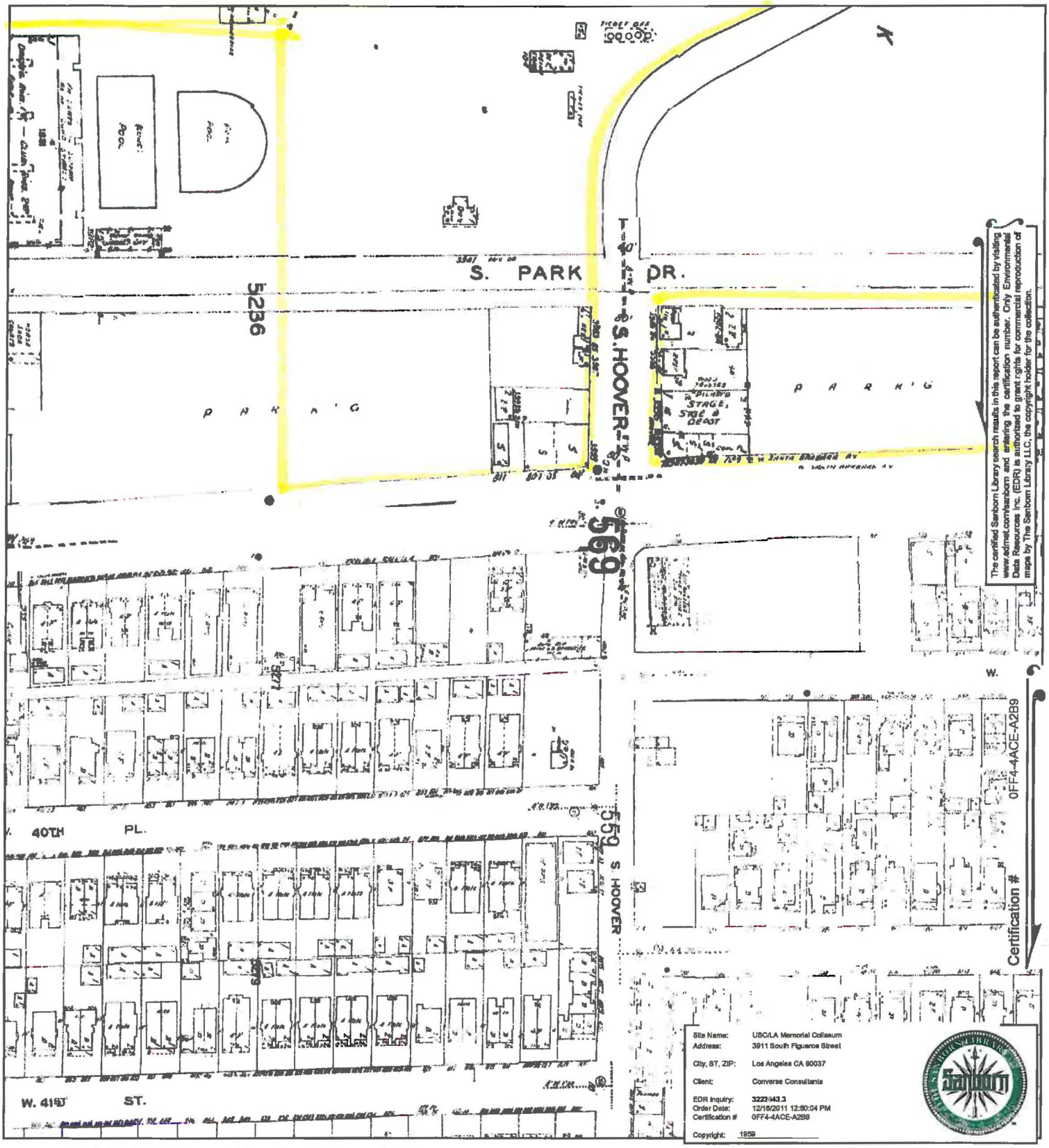


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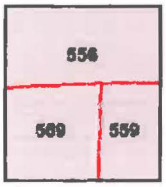
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1959 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.



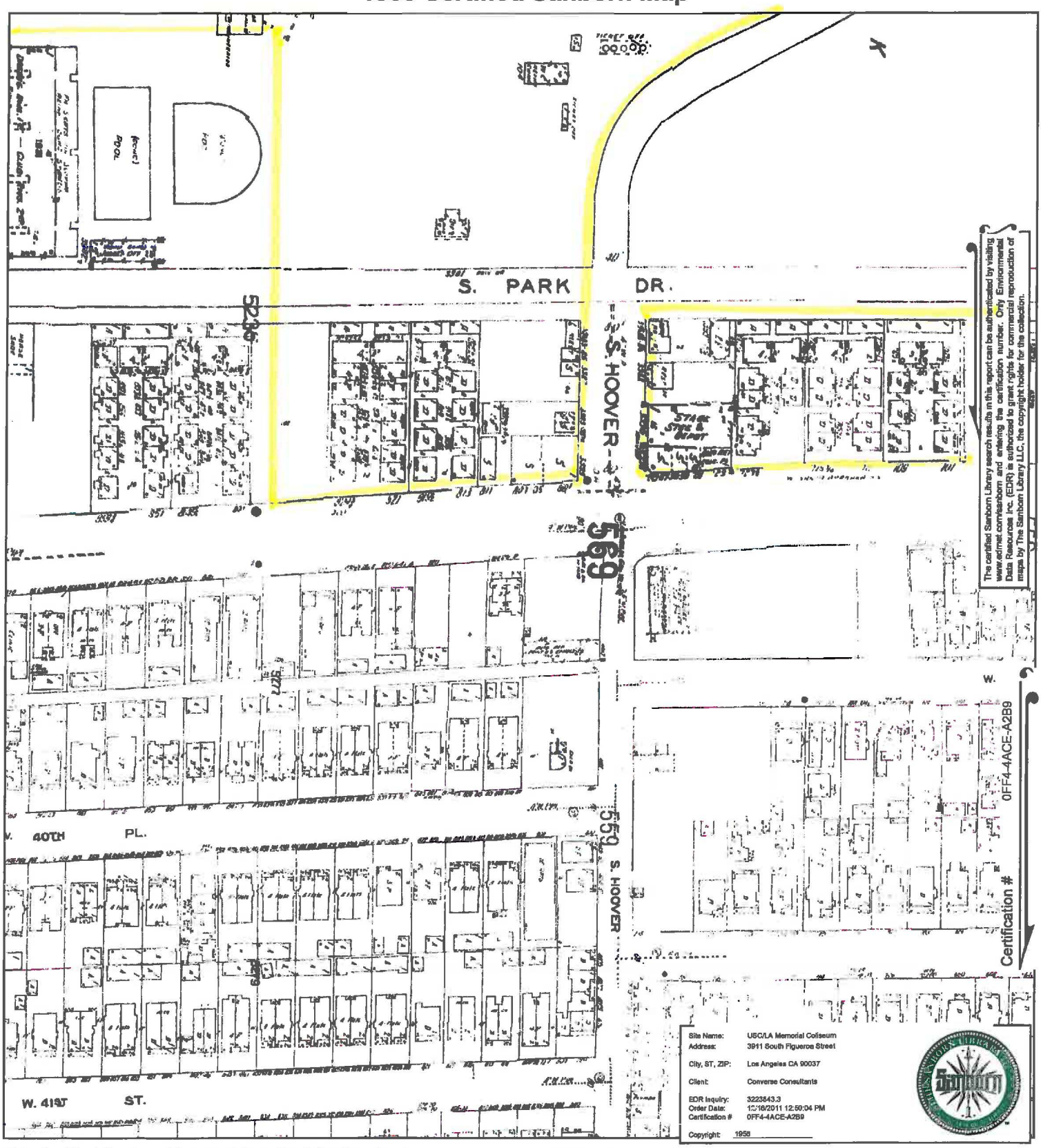


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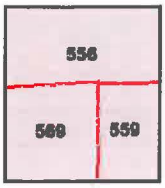
1958 Certified Sanborn Map



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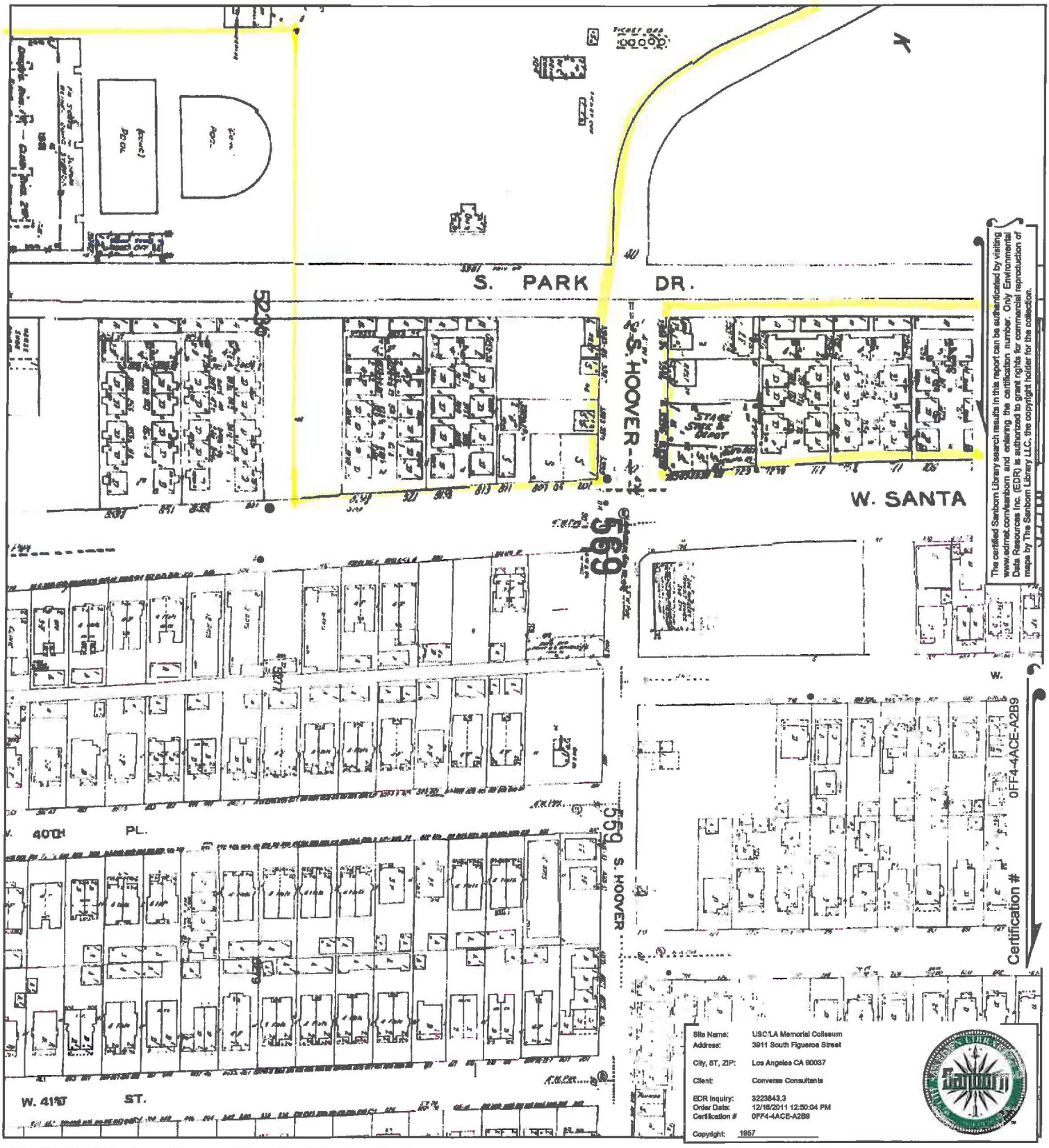


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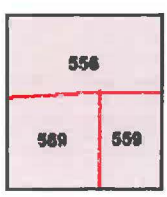
1957 Certified Sanborn Map



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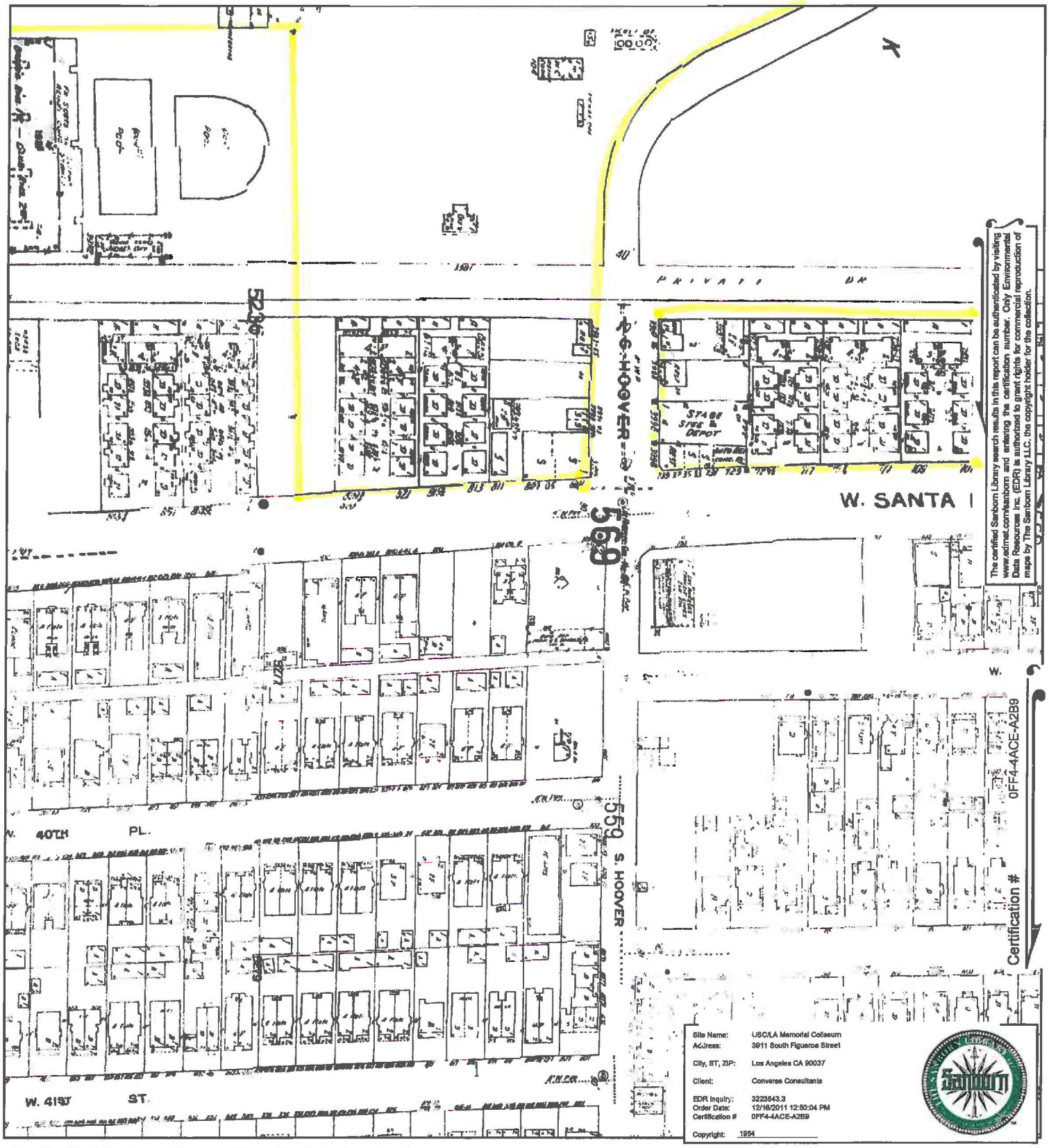


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1954 Certified Sanborn Map

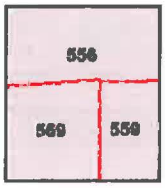


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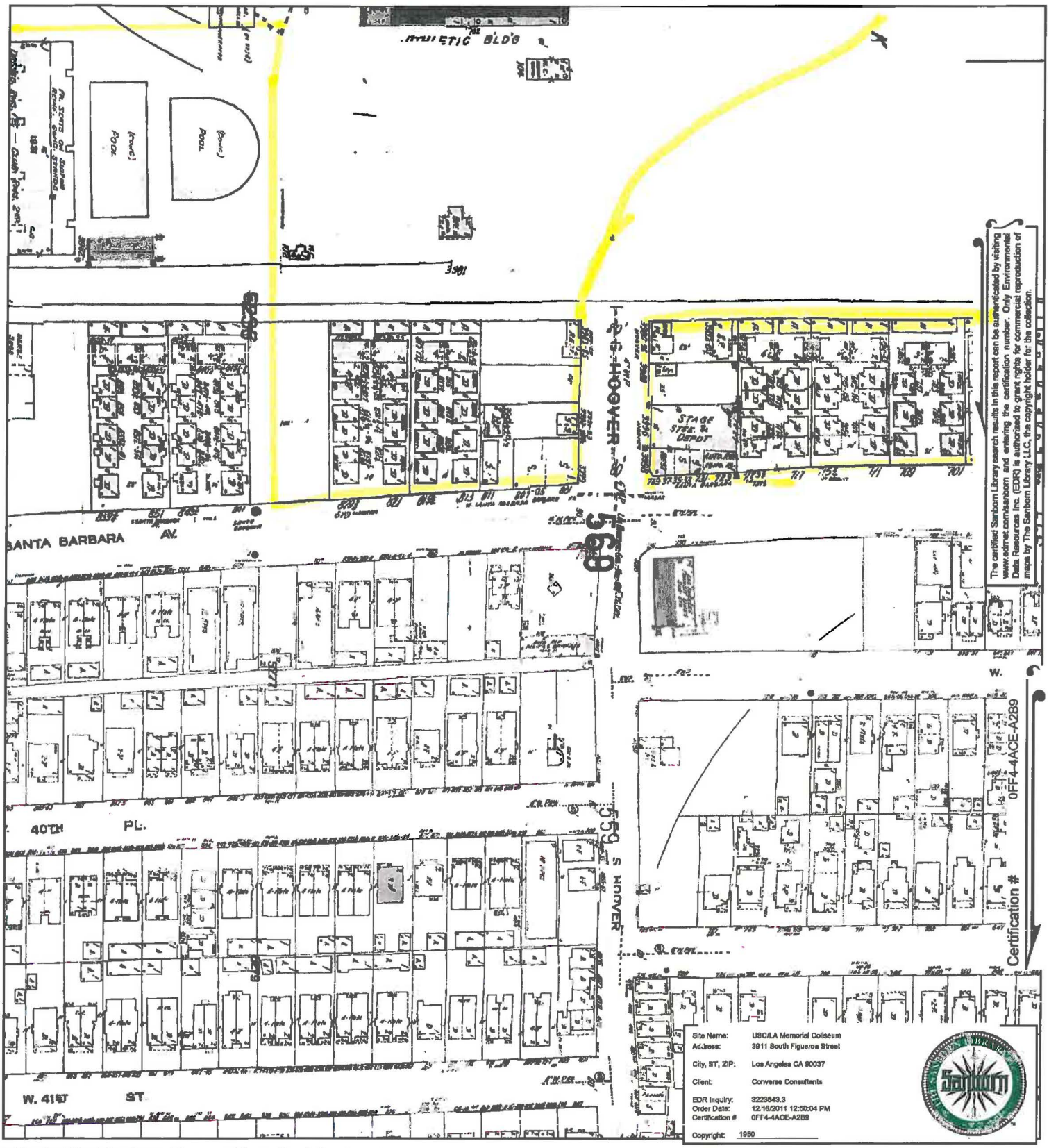


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Volume 5, Sheet 569
Volume 5, Sheet 556
Volume 5, Sheet 559

Volume 5, Sheet 569

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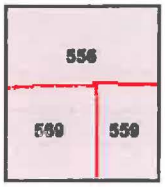
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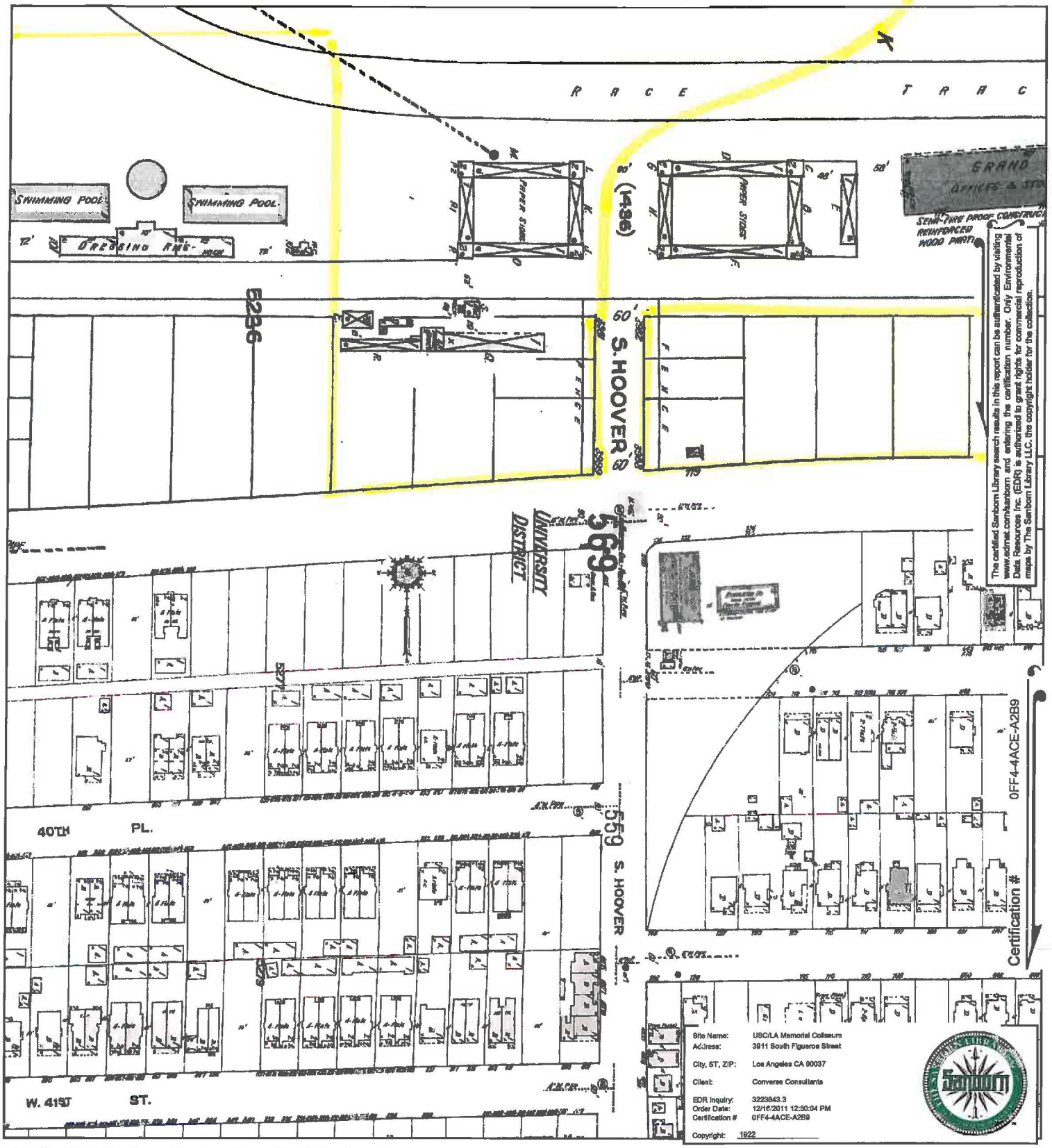




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Volume 5, Sheet 556
Volume 5, Sheet 559

N

1922 Certified Sanborn Map



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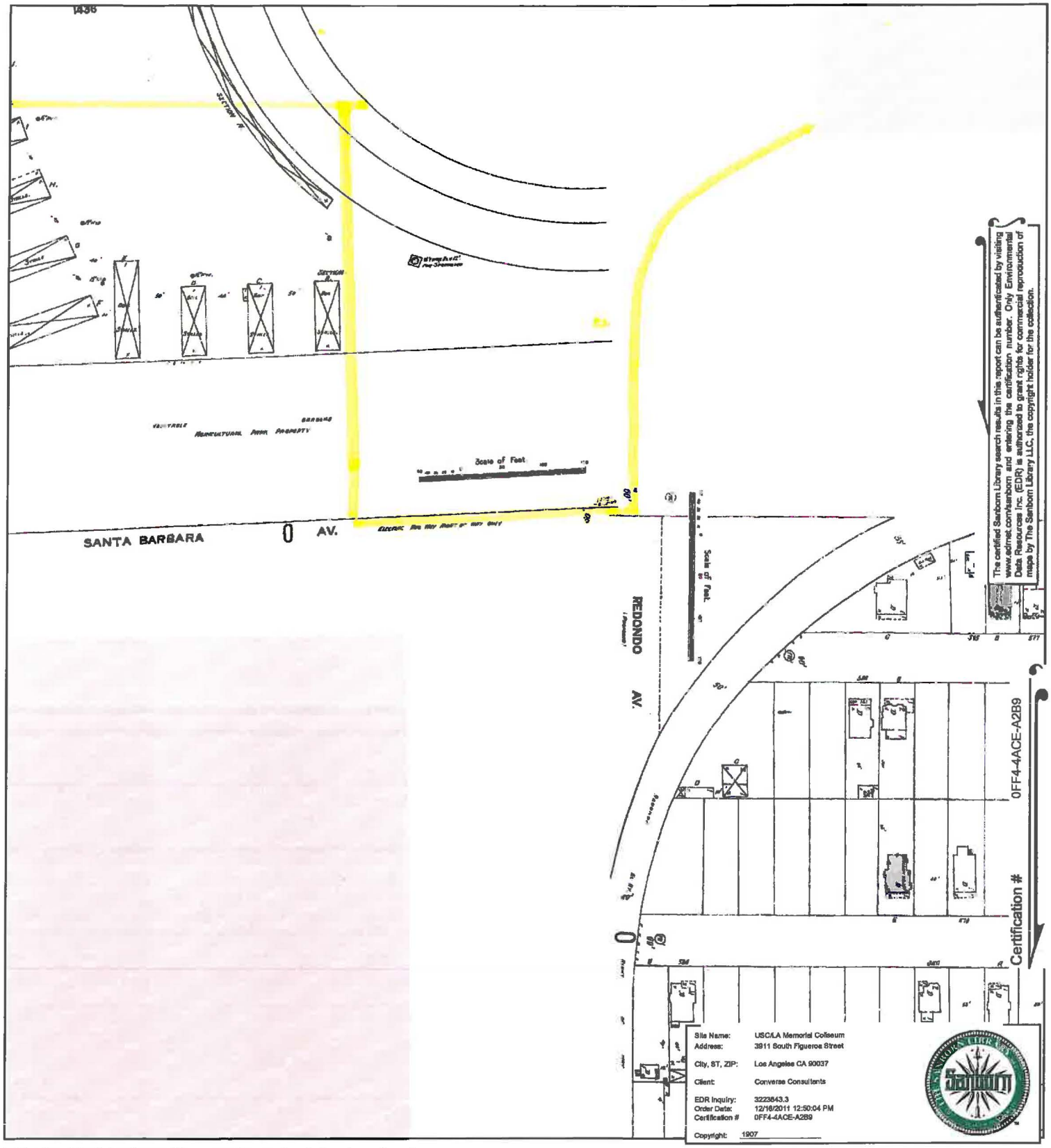




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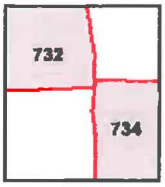
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1907 Certified Sanborn Map



This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





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Volume 6, Sheet 734

0 Feet 165 330 660

N

USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

EDR Inquiry # 3223843.3

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Converse Consultants were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
Certification # 0FF4-4ACE-A2B9

Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

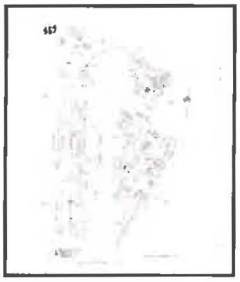
1970 Source Sheets



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Volume 5, Sheet 556



Volume 5, Sheet 557



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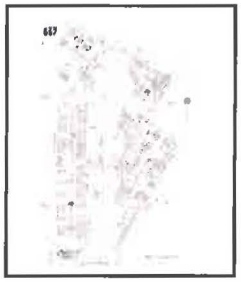
1968 Source Sheets



Volume 5, Sheet 501



Volume 5, Sheet 556



Volume 5, Sheet 557



Volume 5, Sheet 559

1966 Source Sheets



Volume 5, Sheet 501



Volume 5, Sheet 556



Volume 5, Sheet 557

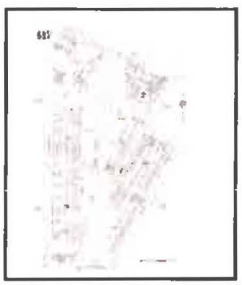


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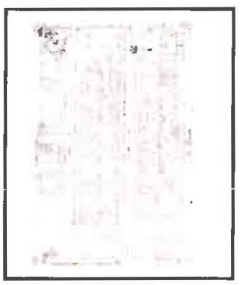
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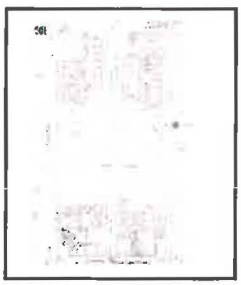
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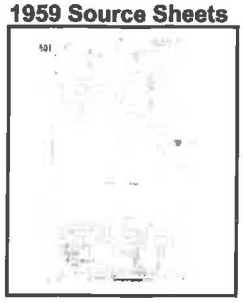


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1959 Source Sheets



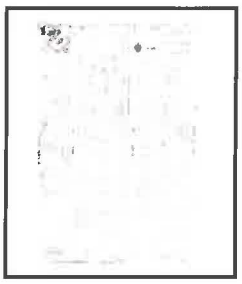
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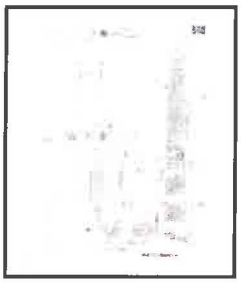


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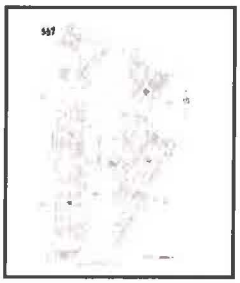
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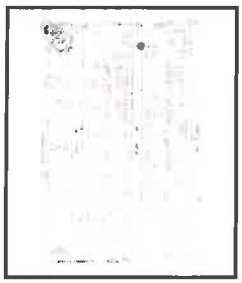
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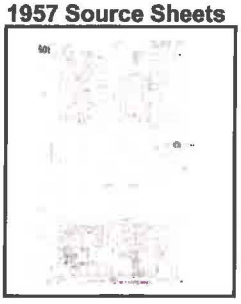


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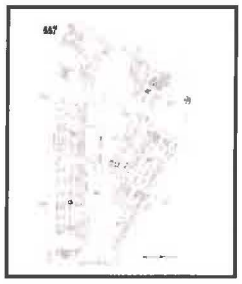
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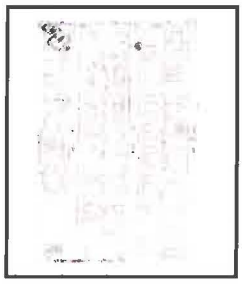
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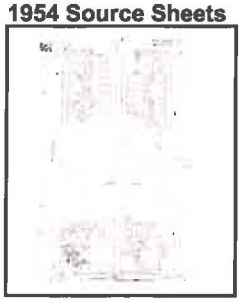


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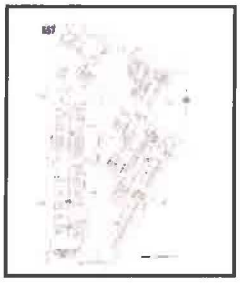
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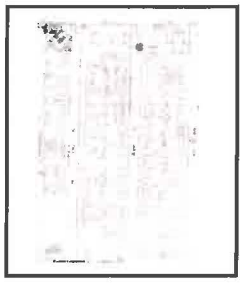
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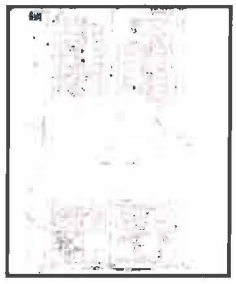
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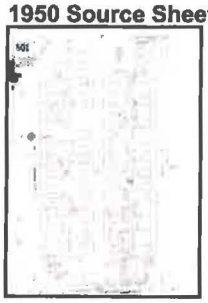


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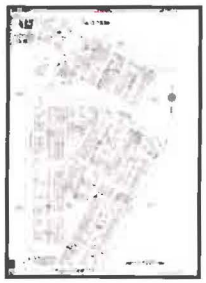
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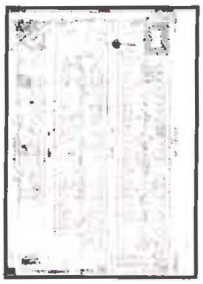
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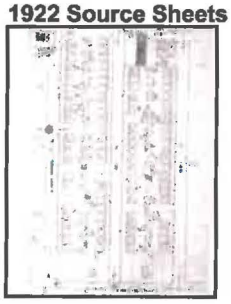


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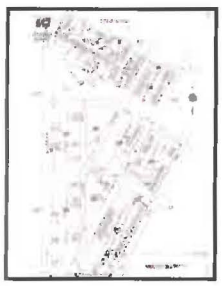
1922 Source Sheets



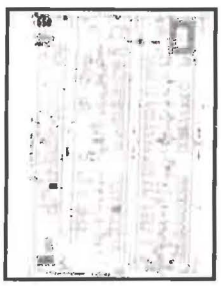
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Volume 5, Sheet 556



Volume 5, Sheet 557

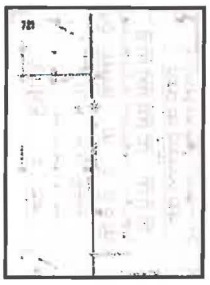


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1907 Source Sheets



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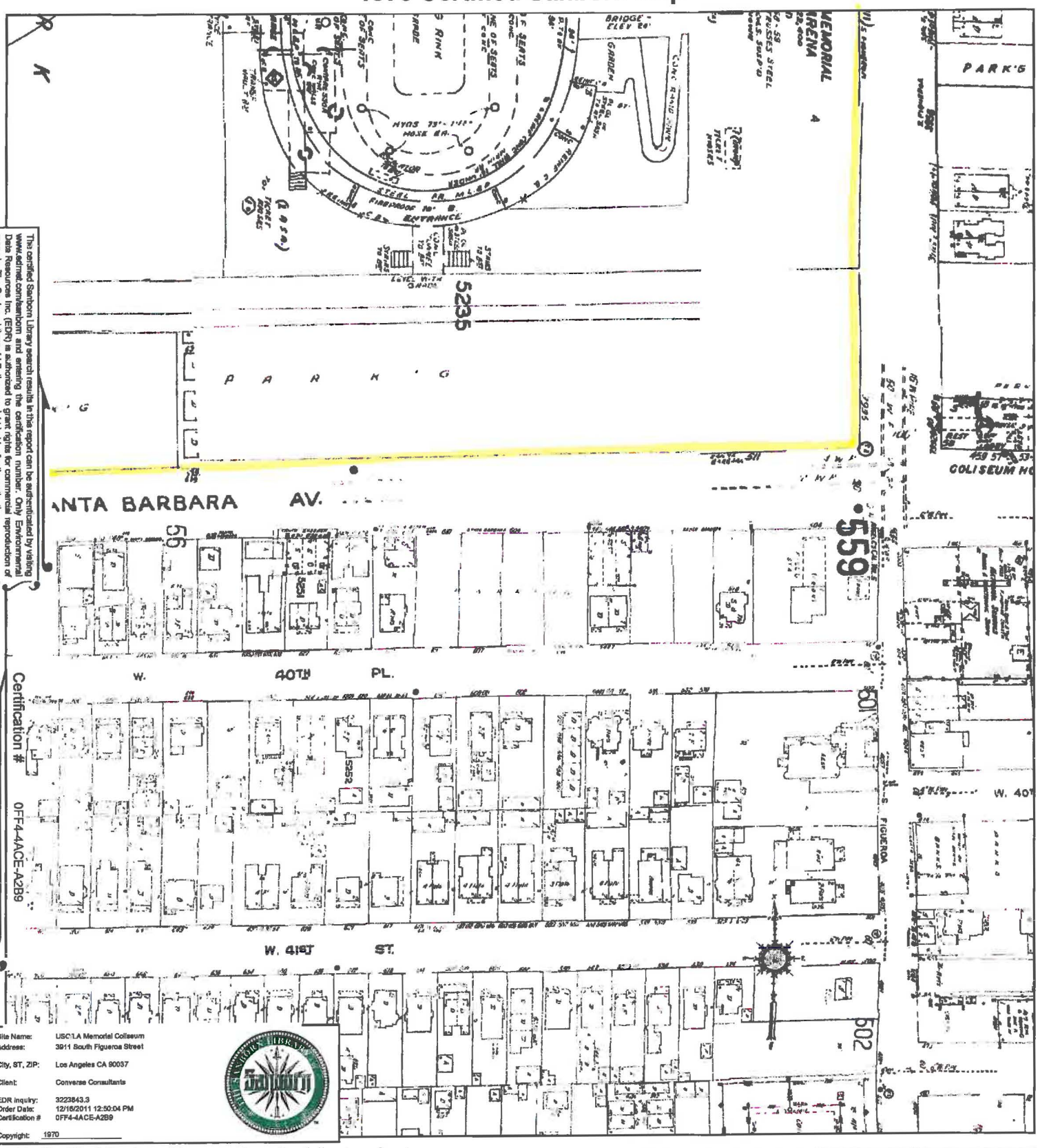


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Volume 6, Sheet 734

1970 Certified Sanborn Map

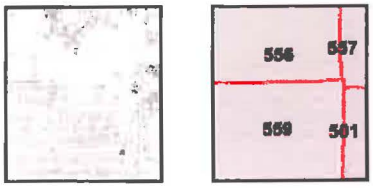


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Site Name:	USC\LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
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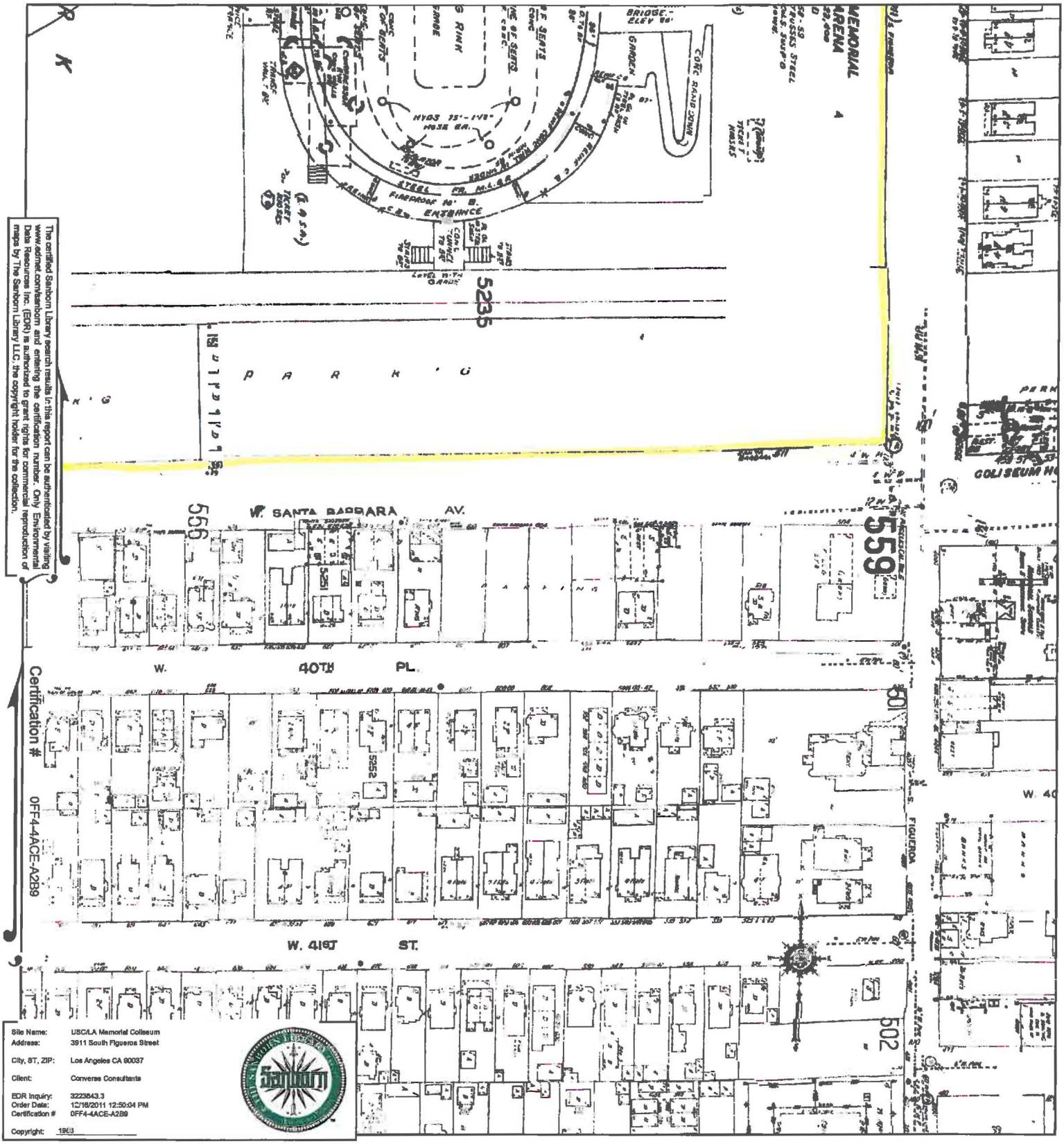


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Volume 5, Sheet 559

0 Feet 165 330 660

N

1968 Certified Sanborn Map



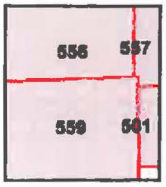
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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1968

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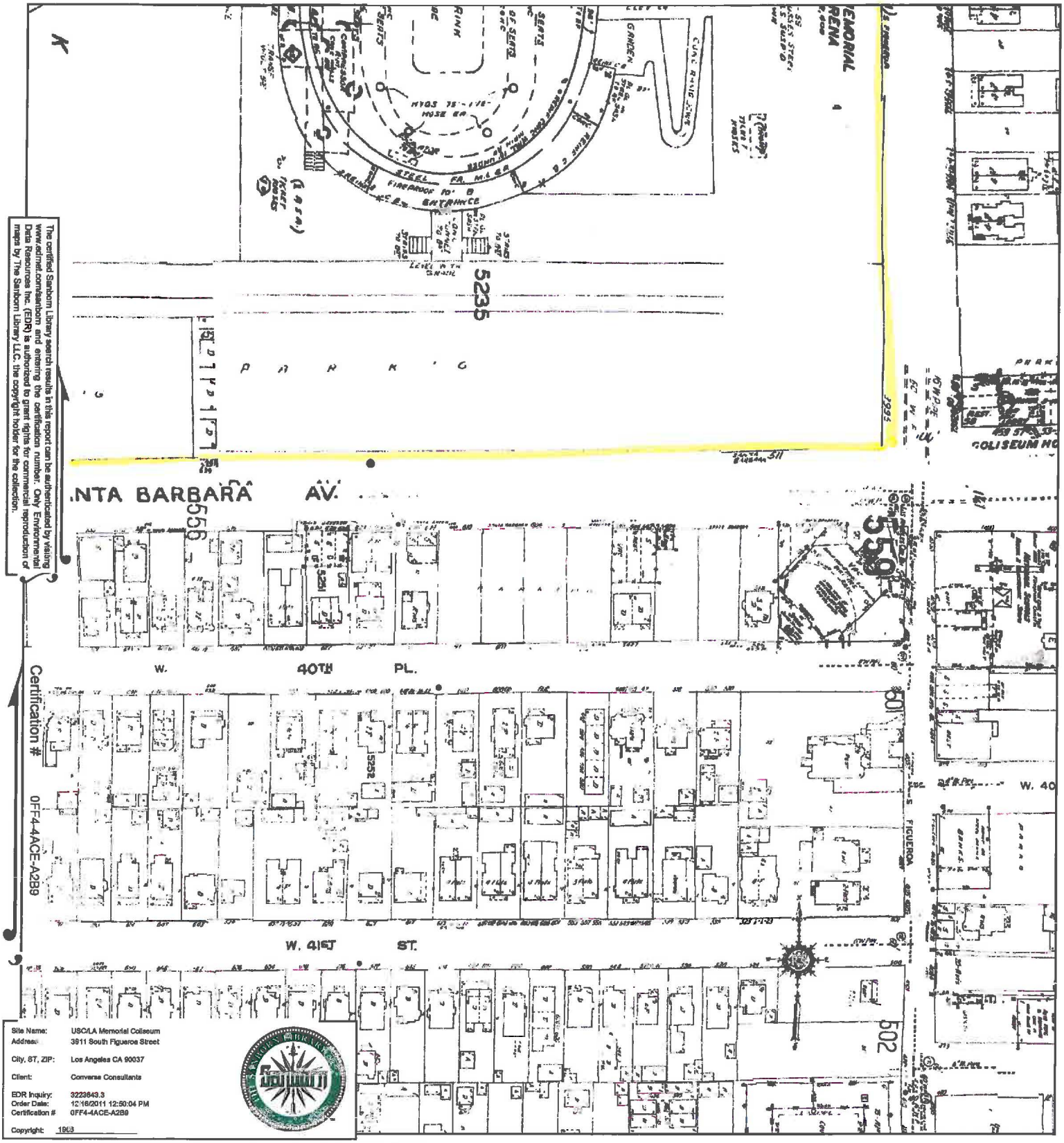


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0 Feet 165 330 660

N

1966 Certified Sanborn Map



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City, ST, ZIP: Los Angeles CA 90037
Client: Converse Consultants
EDR Inquiry: 3223843.3
Order Date: 12/16/2011 12:50:04 PM
Certification #: 0FF4-4ACE-A2B9
Copyright: 1963

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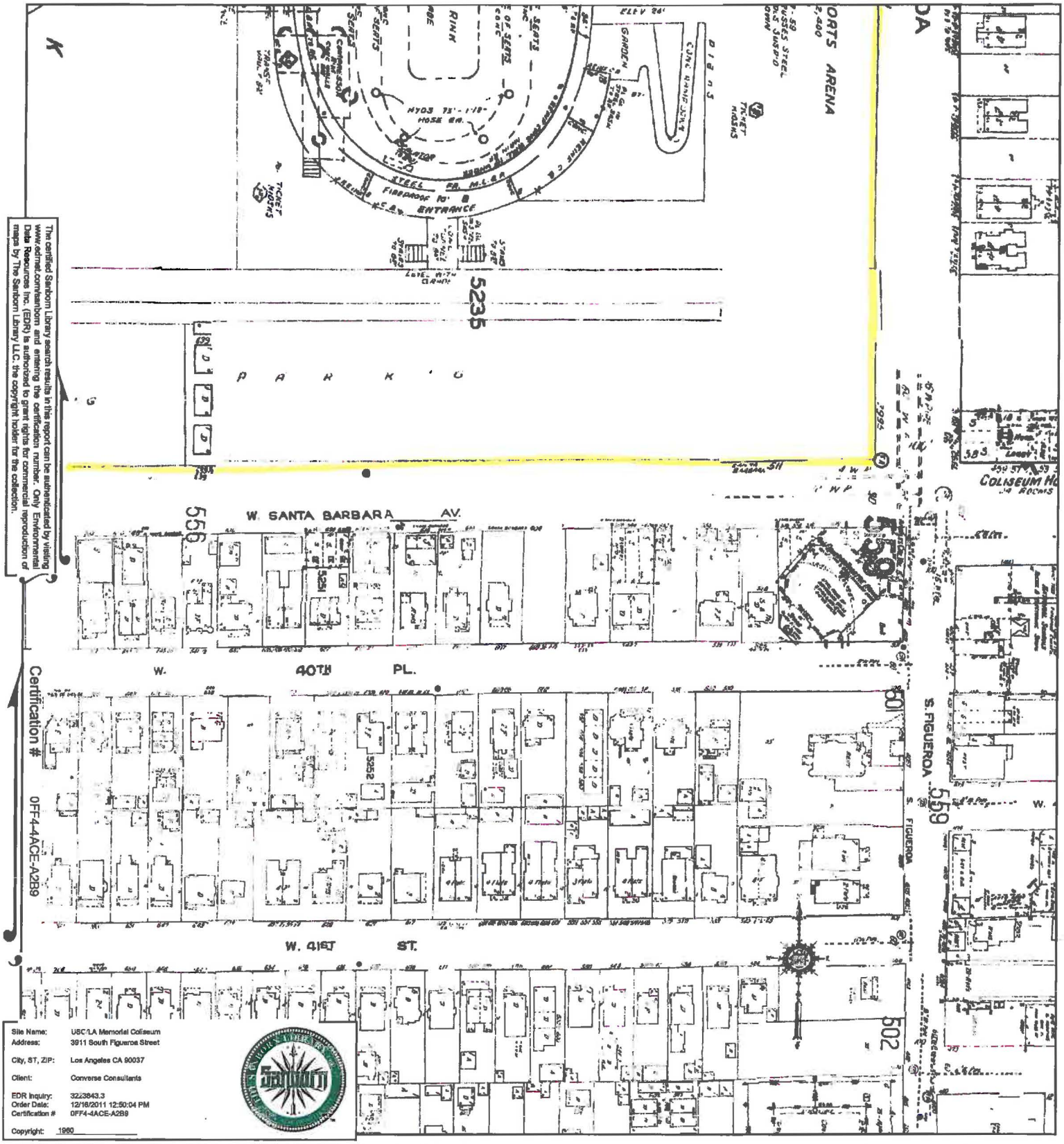


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0 Feet 165 330 660

N

1960 Certified Sanborn Map

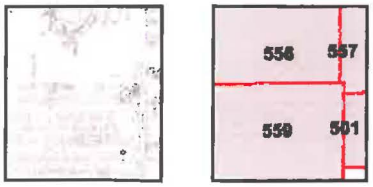


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Site Name:	USC/LA Memorial Coliseum
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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1960

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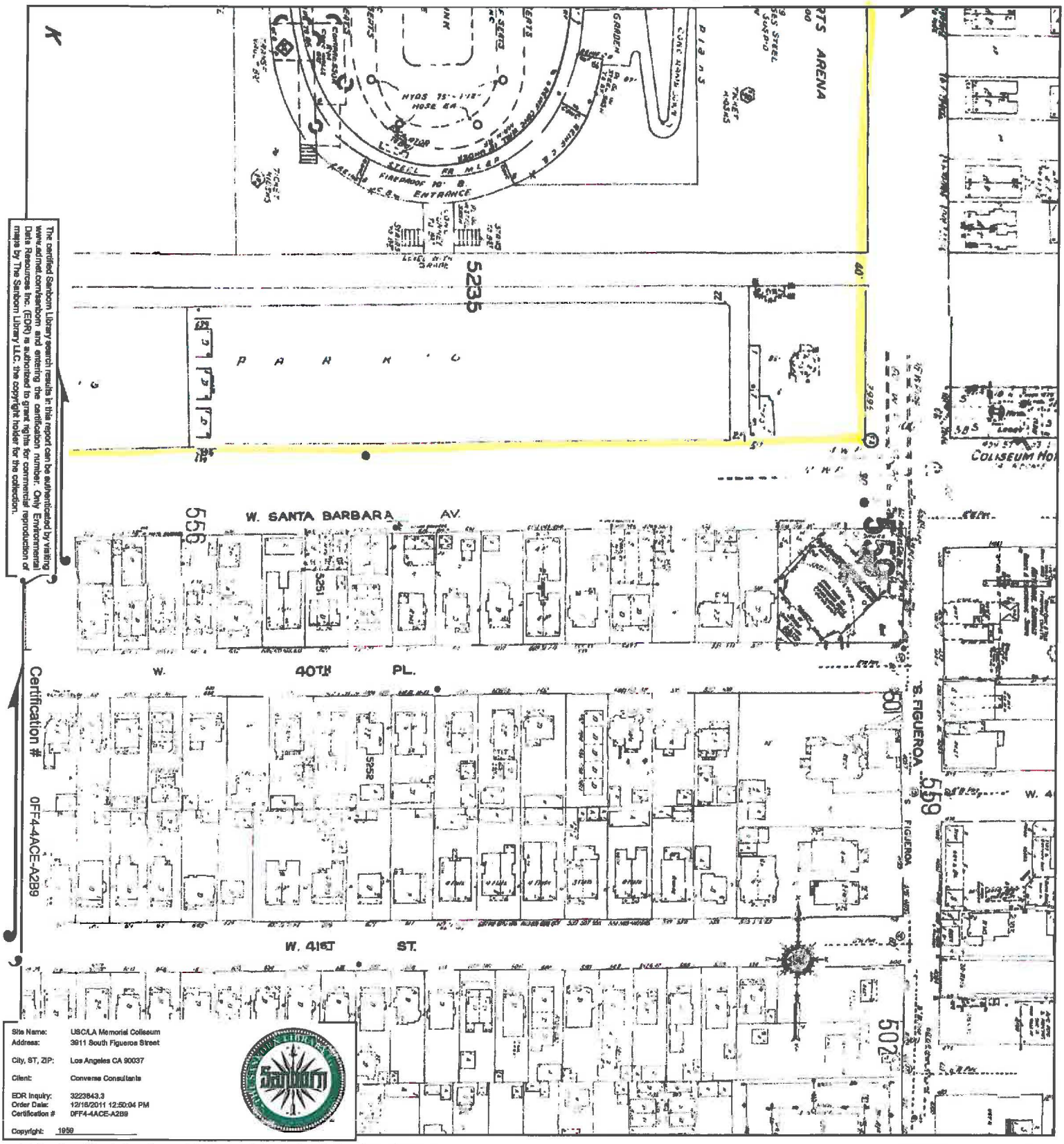


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1959 Certified Sanborn Map



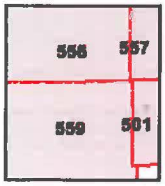
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Client:	Converse Consultants
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Certification #	0FF4-4ACE-A2B9
Copyright:	1959

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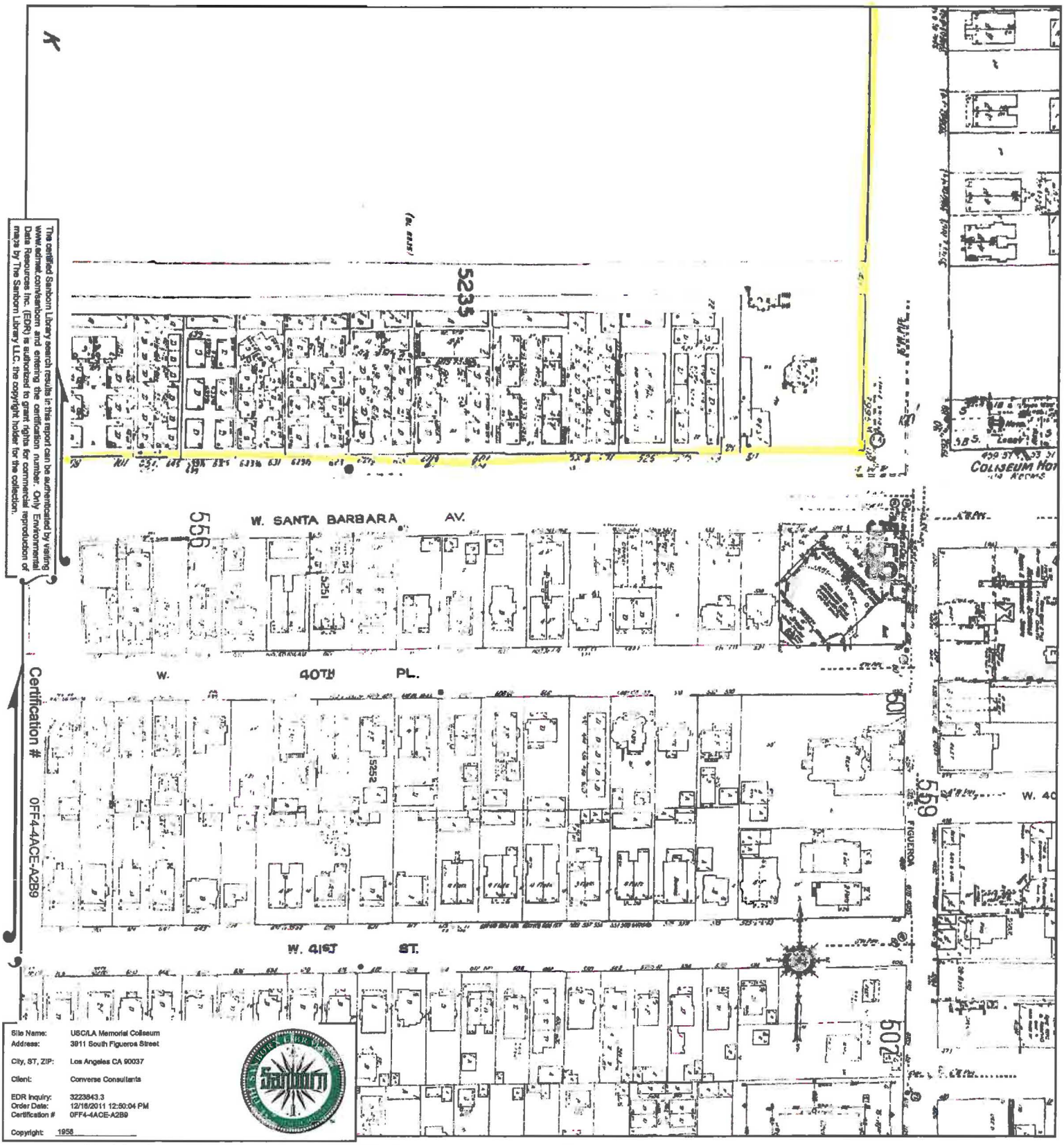


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1958 Certified Sanborn Map



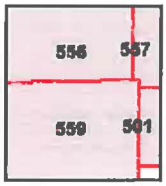
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Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Certification #	0FF4-4ACE-A2B9
Copyright:	1958

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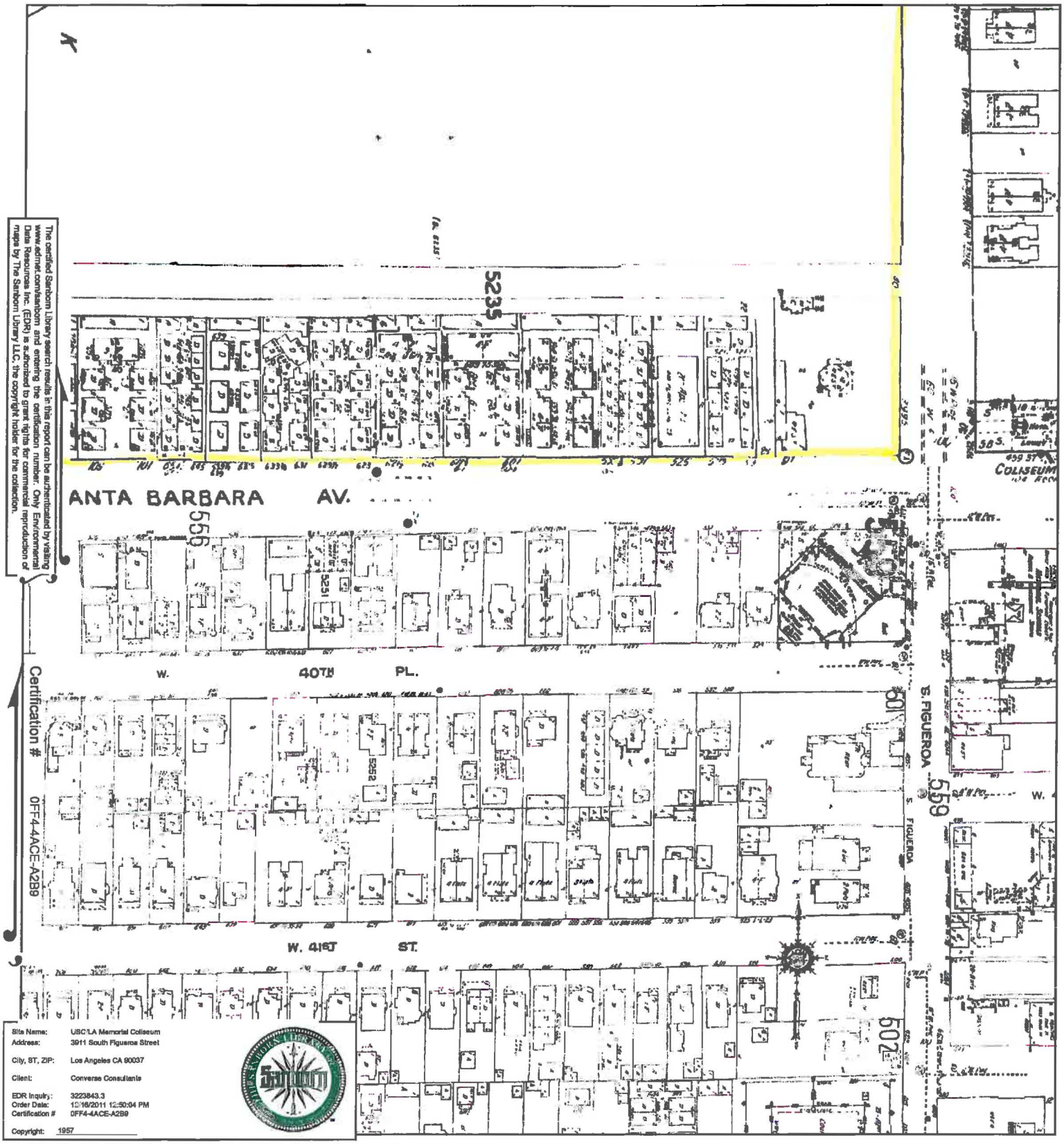


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0 Feet 165 330 660

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1957 Certified Sanborn Map

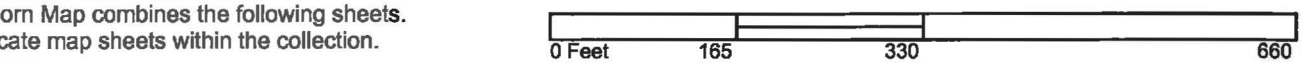


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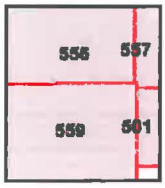
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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Certification #	0FF4-4ACE-A2B9
Copyright:	1957

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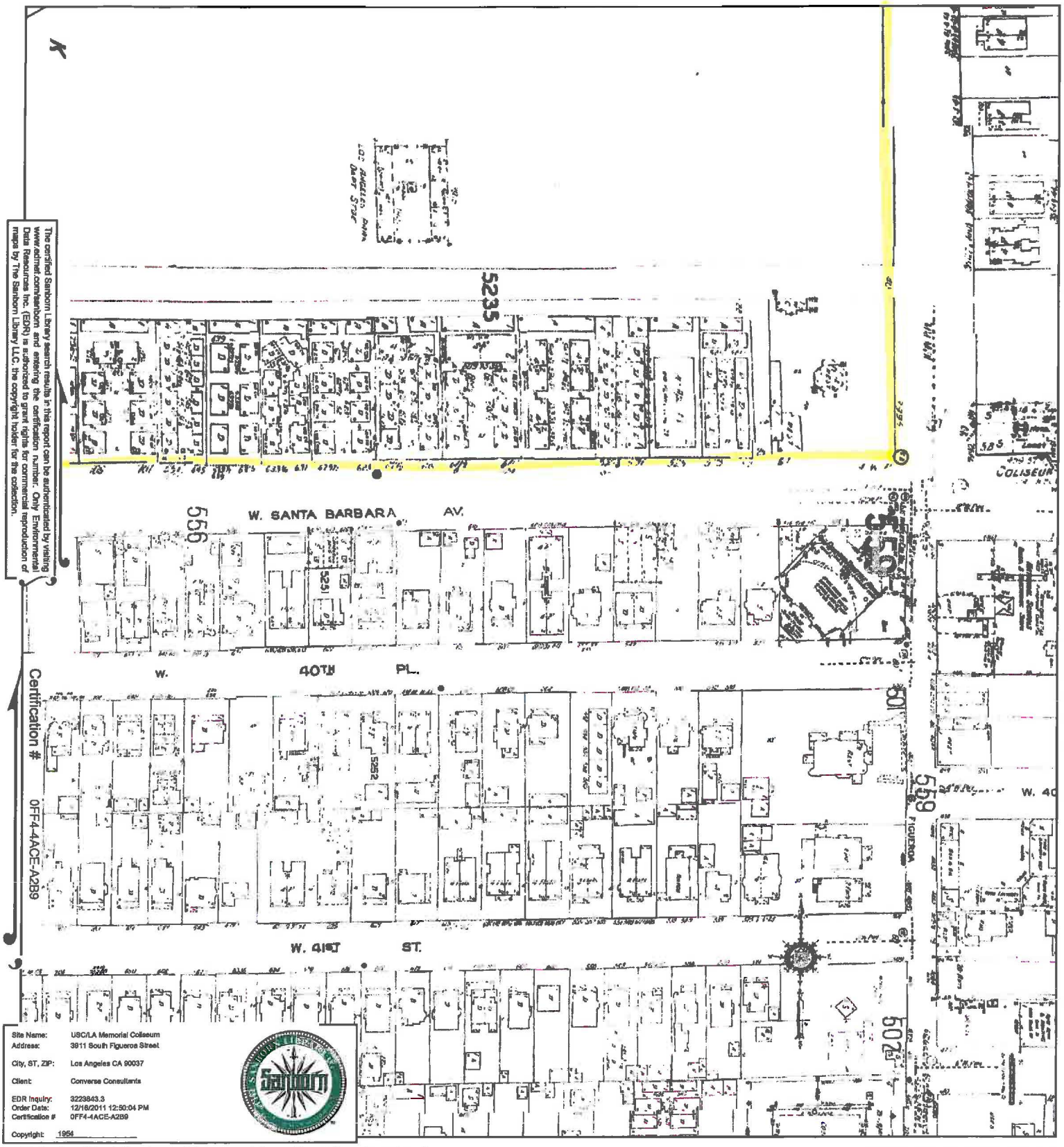




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1954 Certified Sanborn Map



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City, ST, ZIP: Los Angeles CA 90037
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Order Date: 12/16/2011 12:50:04 PM
Certification #: 0FF4-4ACE-A2B9
Copyright: 1954

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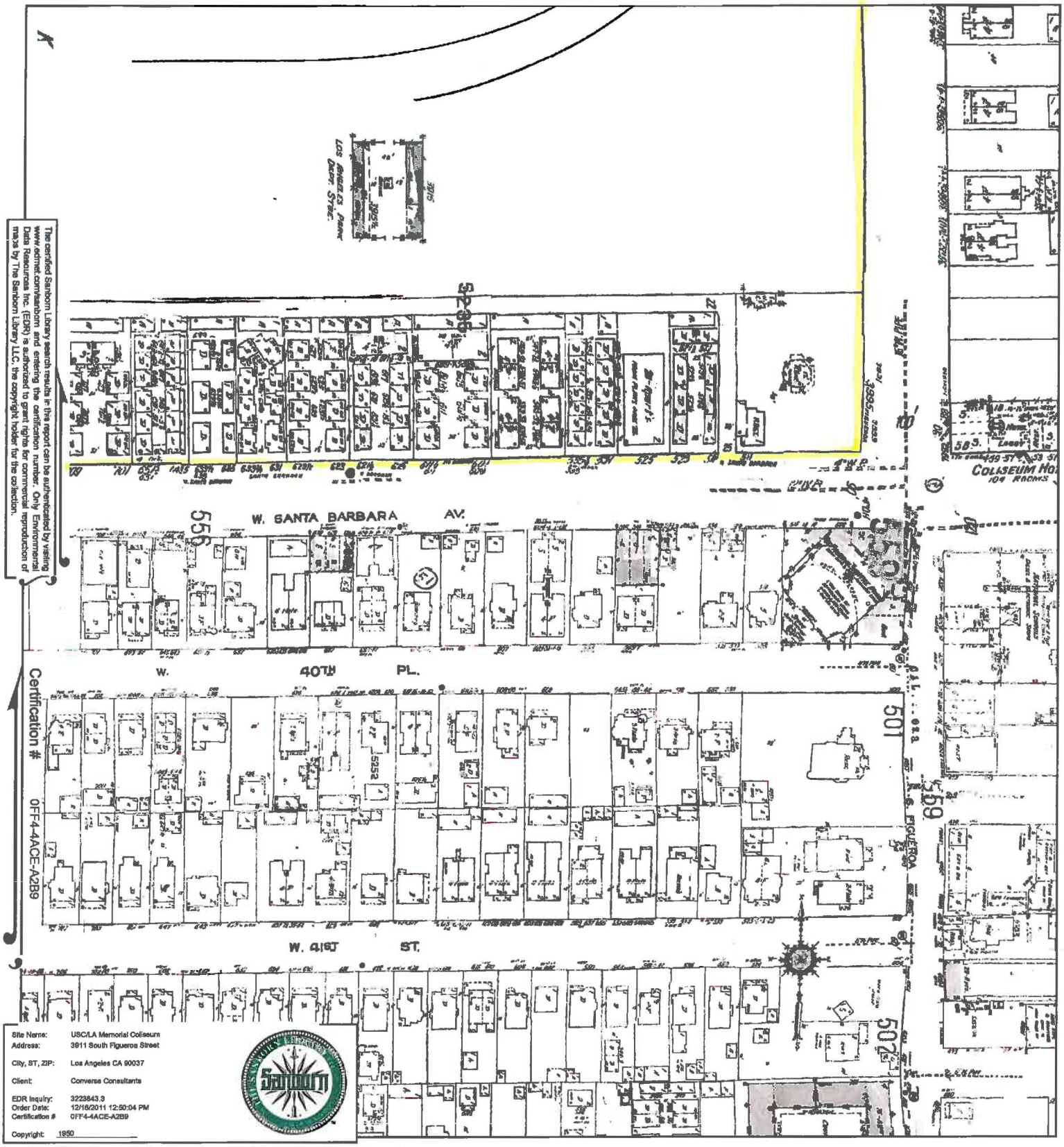




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Volume 5, Sheet 557
Volume 5, Sheet 559
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N

1950 Certified Sanborn Map



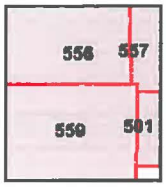
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City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
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Certification #	0FF4-4ACE-A2B9
Copyright:	1950

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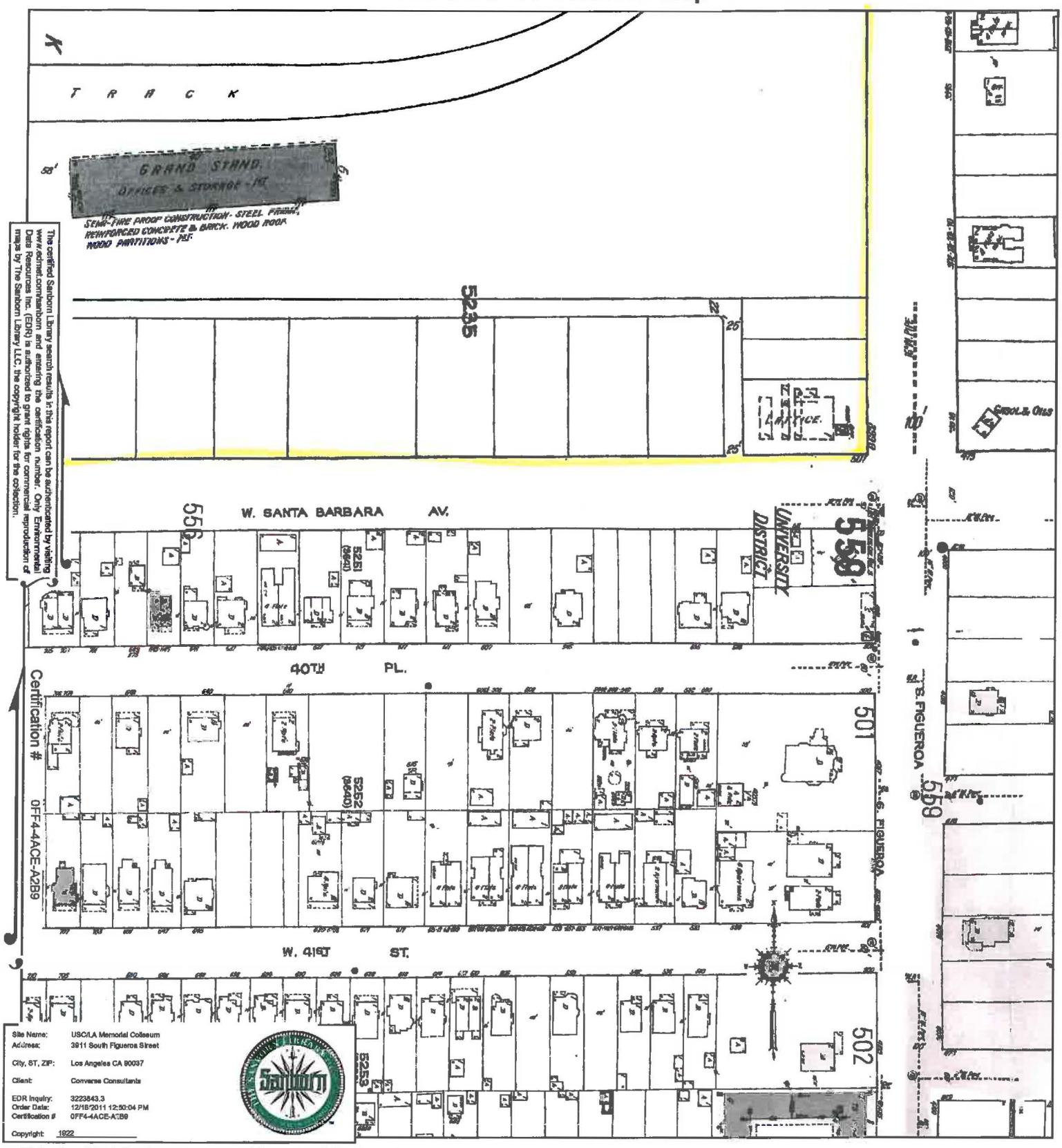


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Volume 5, Sheet 557
Volume 5, Sheet 559

0 Feet 165 330 660

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1922 Certified Sanborn Map



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Client:	Converse Consultants
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Order Date:	12/18/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1922

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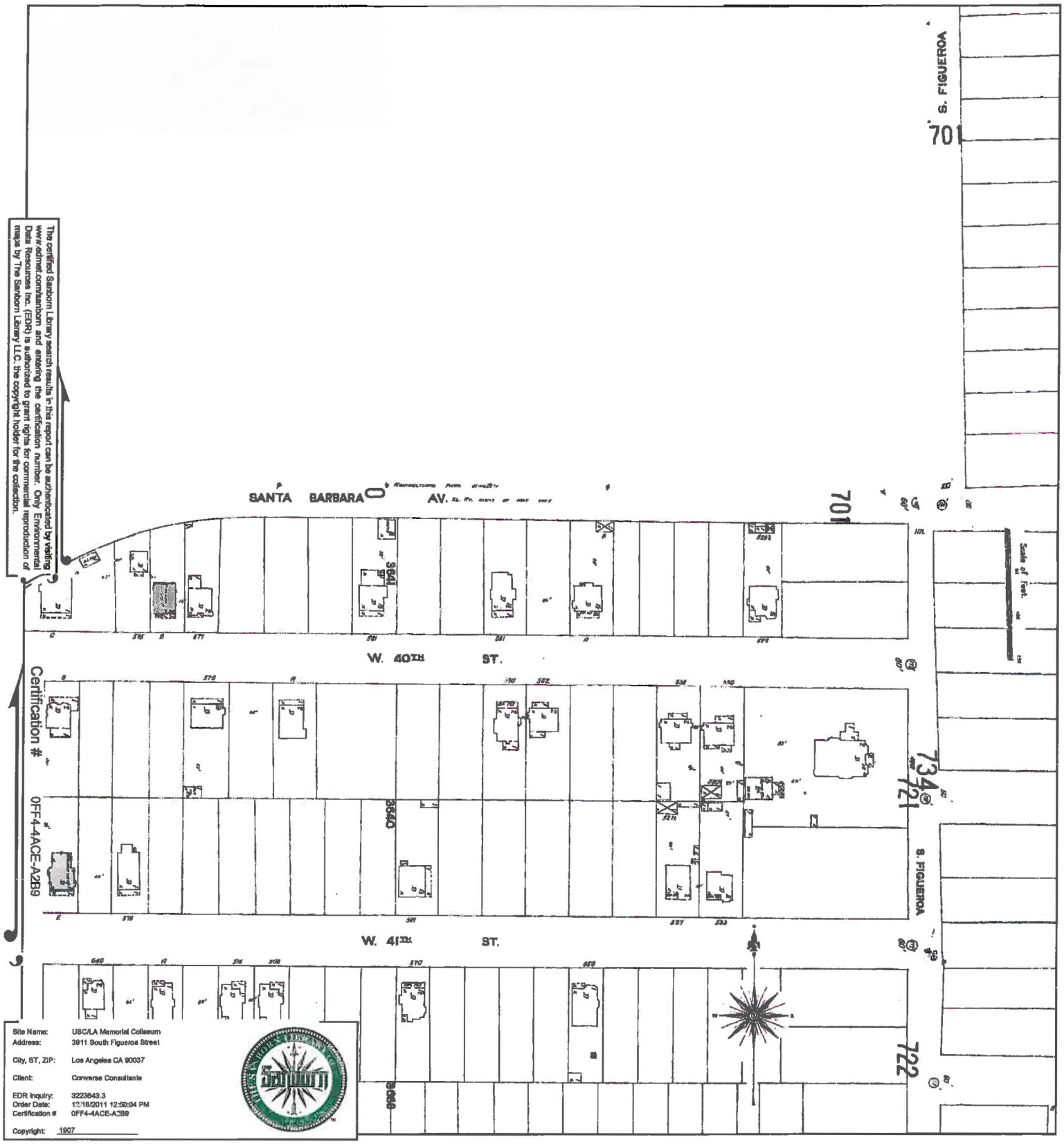


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Volume 5, Sheet 557
Volume 5, Sheet 559

0 Feet 165 330 660

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1907 Certified Sanborn Map



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Site Name:	USC/LA Memorial Coliseum
Address:	3911 South Figueroa Street
City, ST, ZIP:	Los Angeles CA 90037
Client:	Converse Consultants
EDR Inquiry:	3223843.3
Order Date:	12/16/2011 12:50:04 PM
Certification #	0FF4-4ACE-A2B9
Copyright:	1907

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Volume 6, Sheet 734

0 Feet 165 330 660

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

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Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

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Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
Certification # 0FF4-4ACE-A2B9

Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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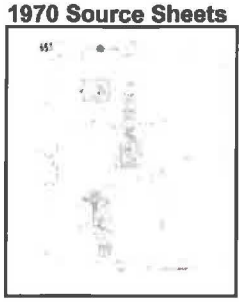
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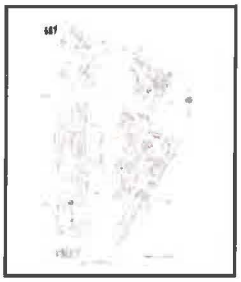
1970 Source Sheets



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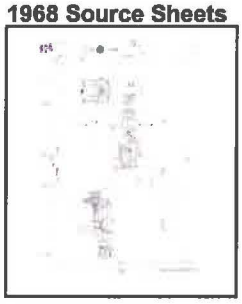


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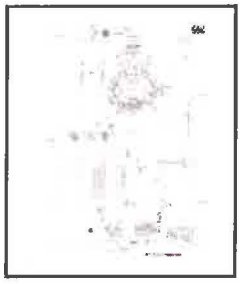


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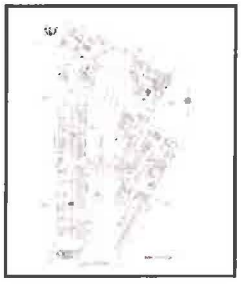
1968 Source Sheets



Volume 5, Sheet 555

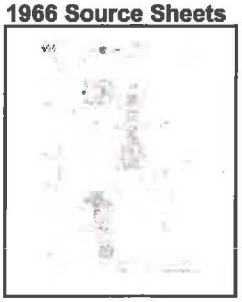


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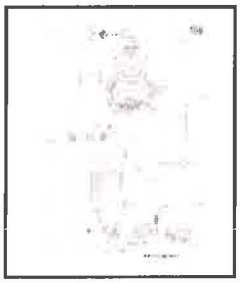


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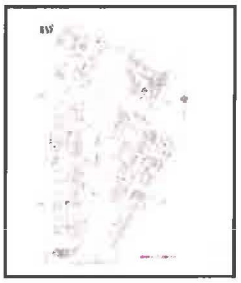
1966 Source Sheets



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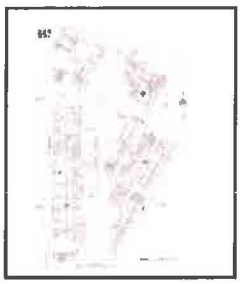
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Volume 5, Sheet 555

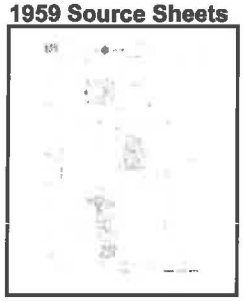


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1959 Source Sheets



Volume 5, Sheet 555

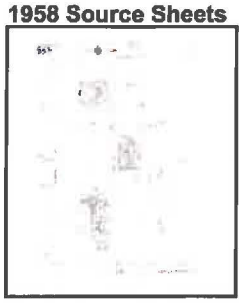


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Volume 5, Sheet 557

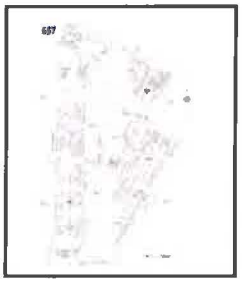
1958 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

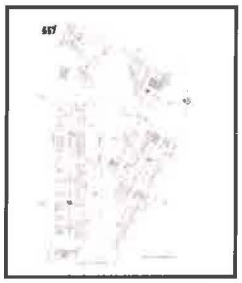


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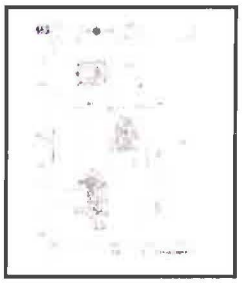
1957 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 557

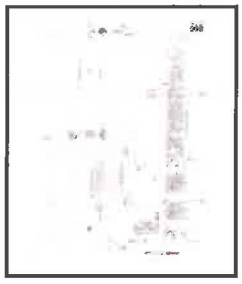


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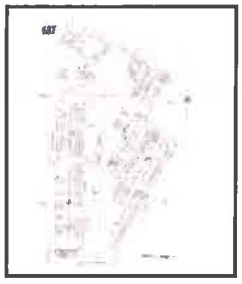
1954 Source Sheets



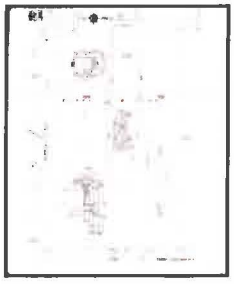
Volume 5, Sheet 555



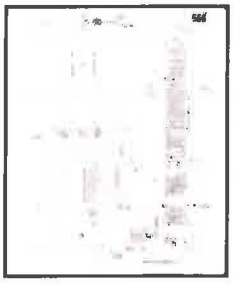
Volume 5, Sheet 556



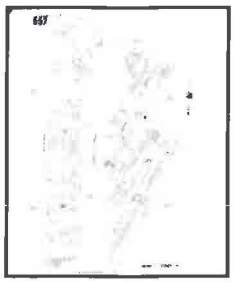
Volume 5, Sheet 557



Volume 5, Sheet 555



Volume 5, Sheet 556



Volume 5, Sheet 557

1950 Source Sheets



Volume 5, Sheet 555

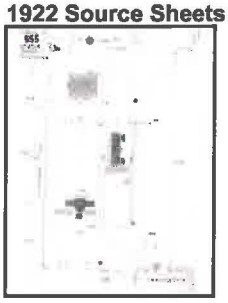


Volume 5, Sheet 556

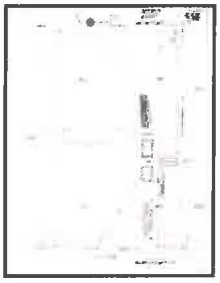


Volume 5, Sheet 557

1922 Source Sheets



Volume 5, Sheet 555

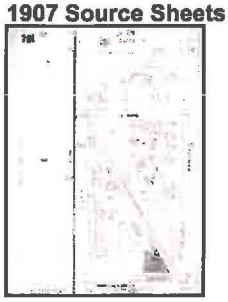


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Volume 5, Sheet 557

1907 Source Sheets



Volume 6, Sheet 701

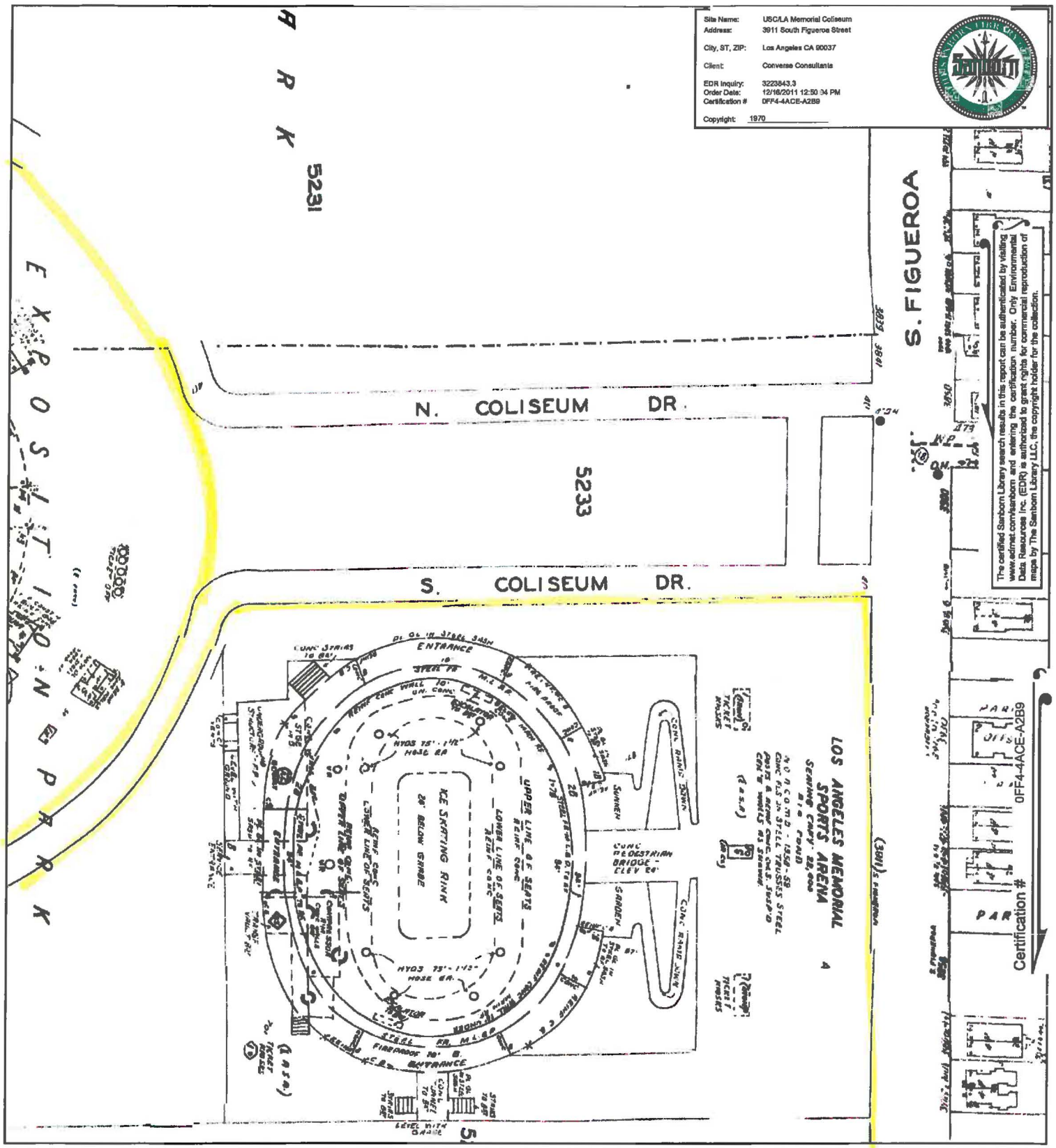


Volume 6, Sheet 719



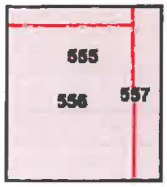
Volume 6, Sheet 720

1970 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.





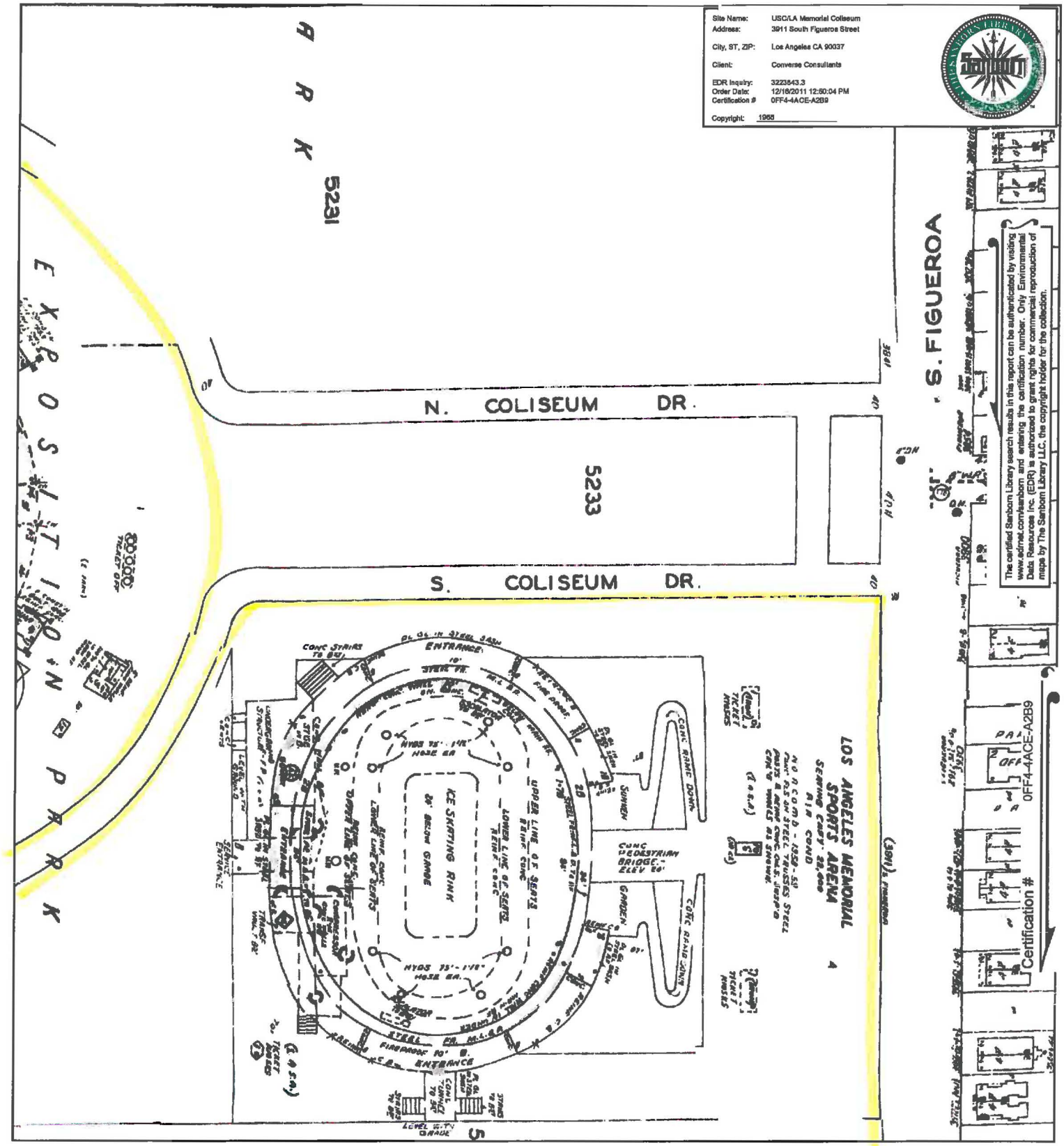
Volume 5, Sheet 555
Volume 5, Sheet 556
Volume 5, Sheet 557

0 Feet 165 330 660

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1968 Certified Sanborn Map

Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, ST, ZIP: Los Angeles CA 90037
Client: Converse Consultants
EDR Inquiry: 3223843.3
Order Date: 12/16/2011 12:50:04 PM
Certification #: 0FF4-4ACE-A2B9
Copyright: 1968

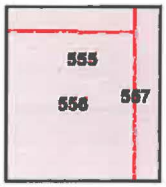


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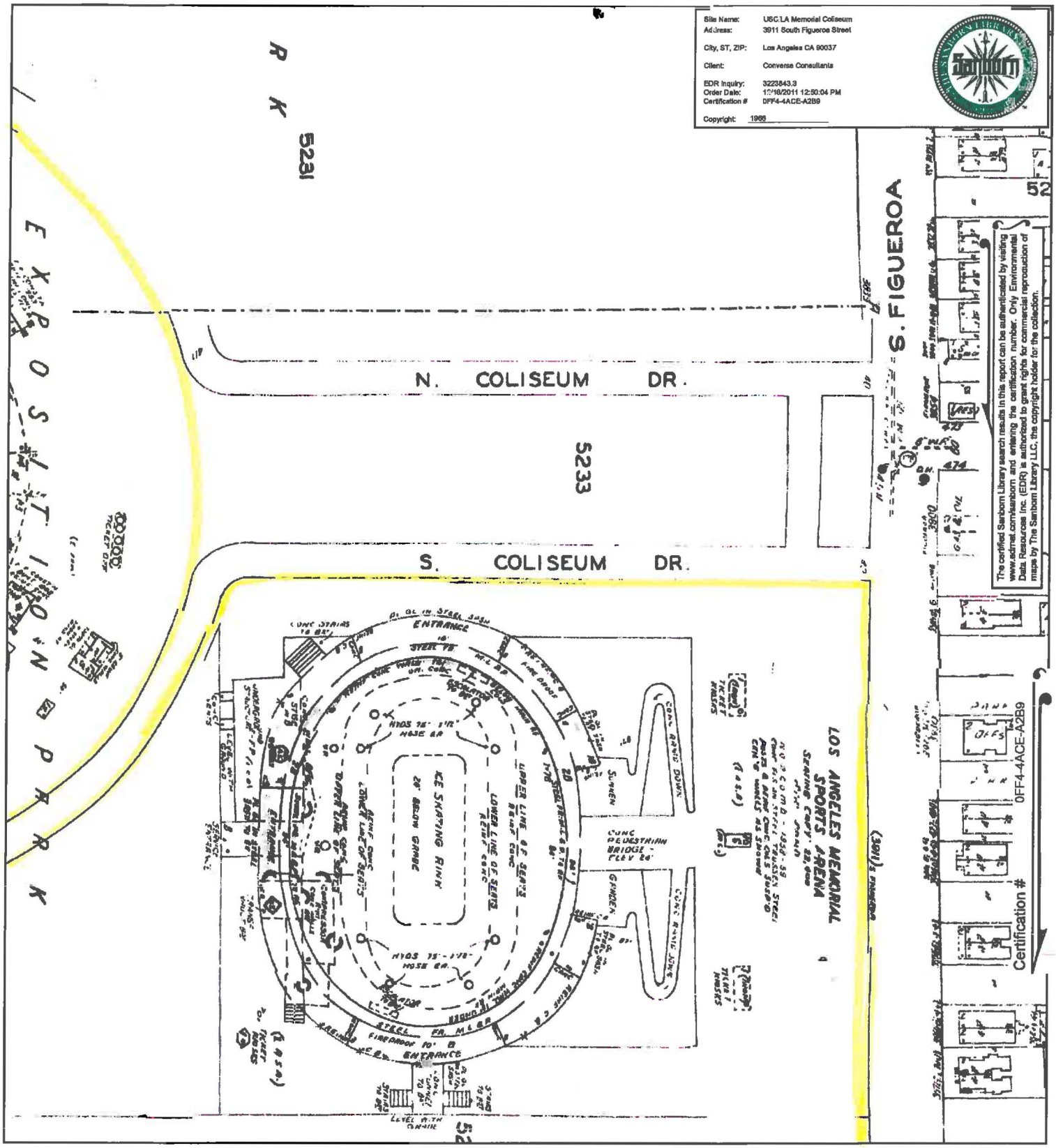




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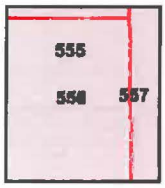
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1966 Certified Sanborn Map



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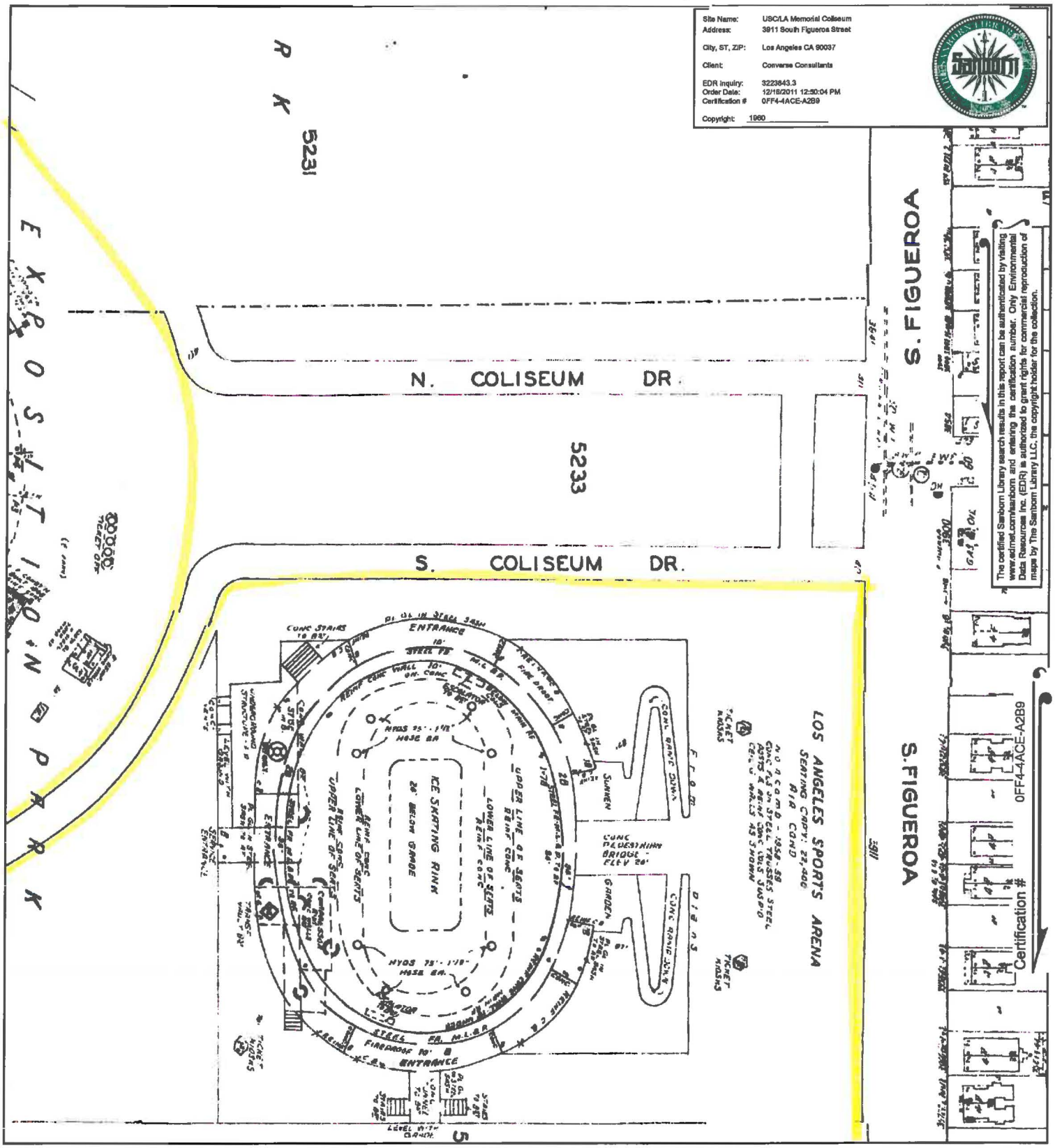


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Volume 5, Sheet 557

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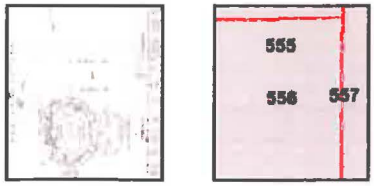
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1960 Certified Sanborn Map



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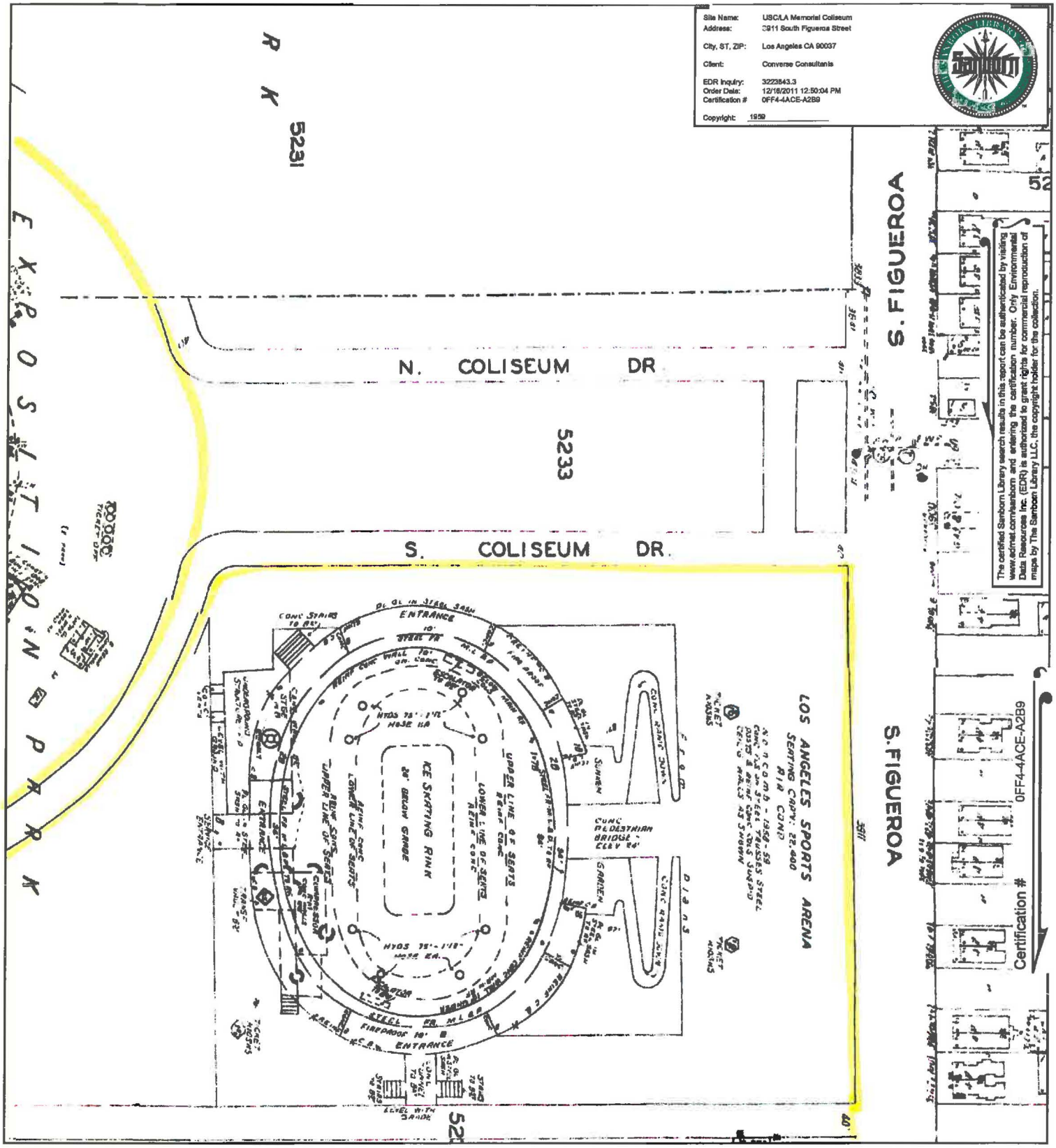
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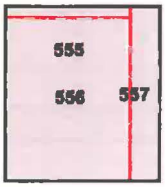
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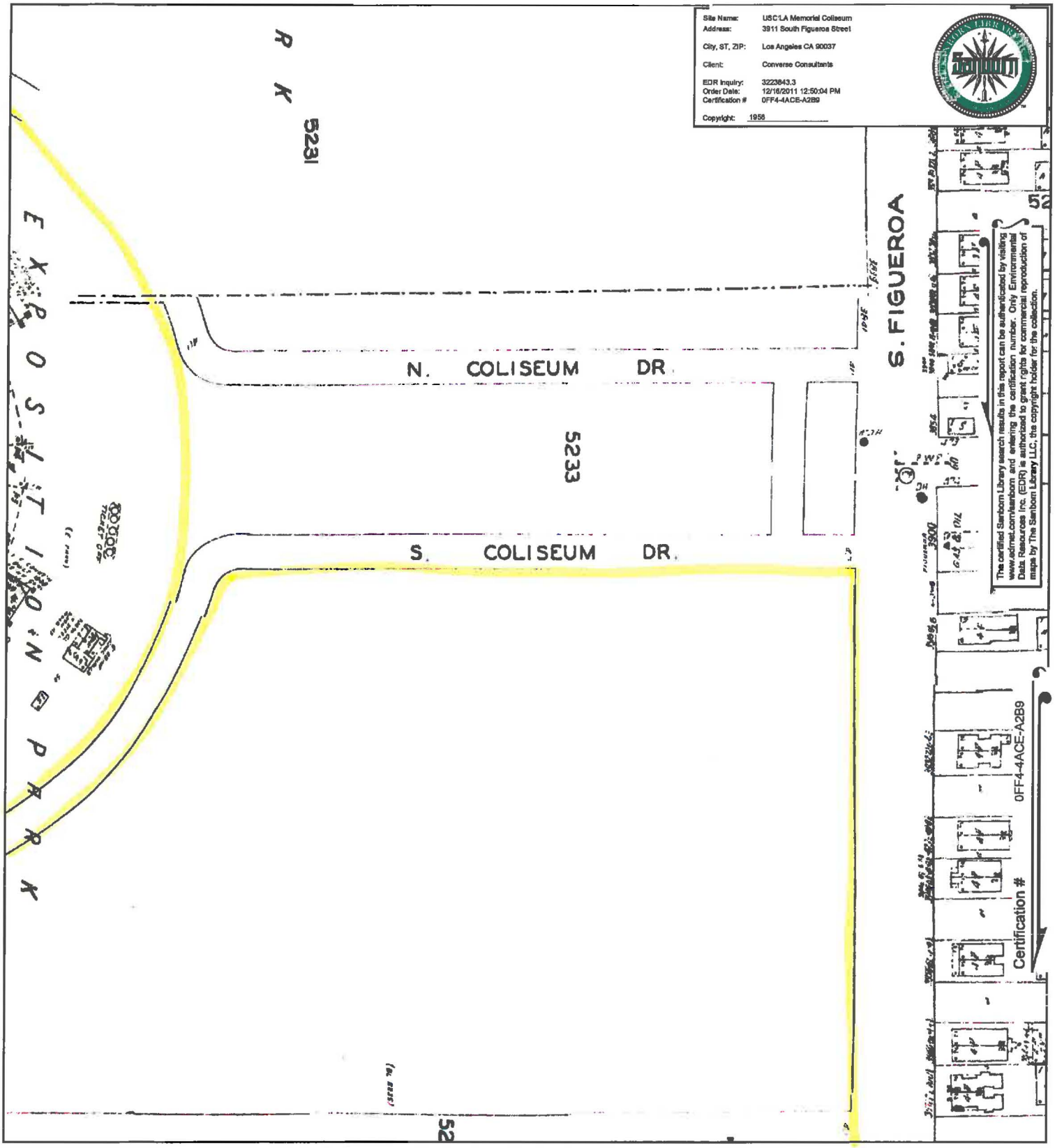


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Volume 5, Sheet 557

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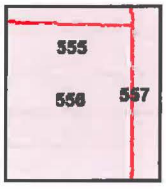
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1958 Certified Sanborn Map



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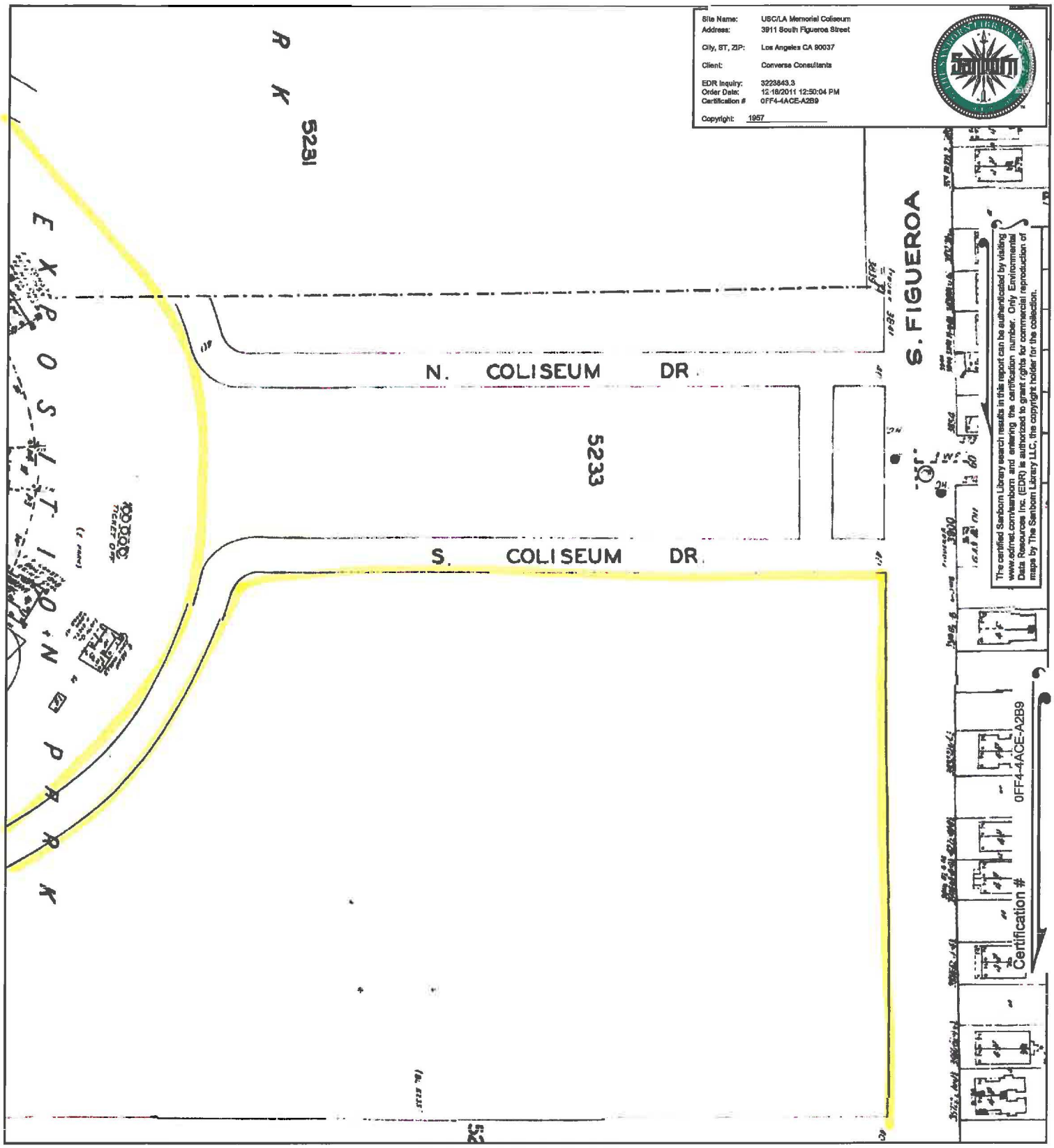


Volume 5, Sheet 555
Volume 5, Sheet 556
Volume 5, Sheet 557

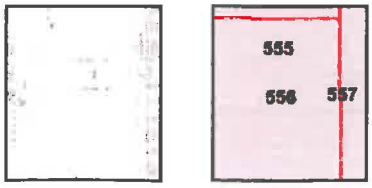
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1957 Certified Sanborn Map



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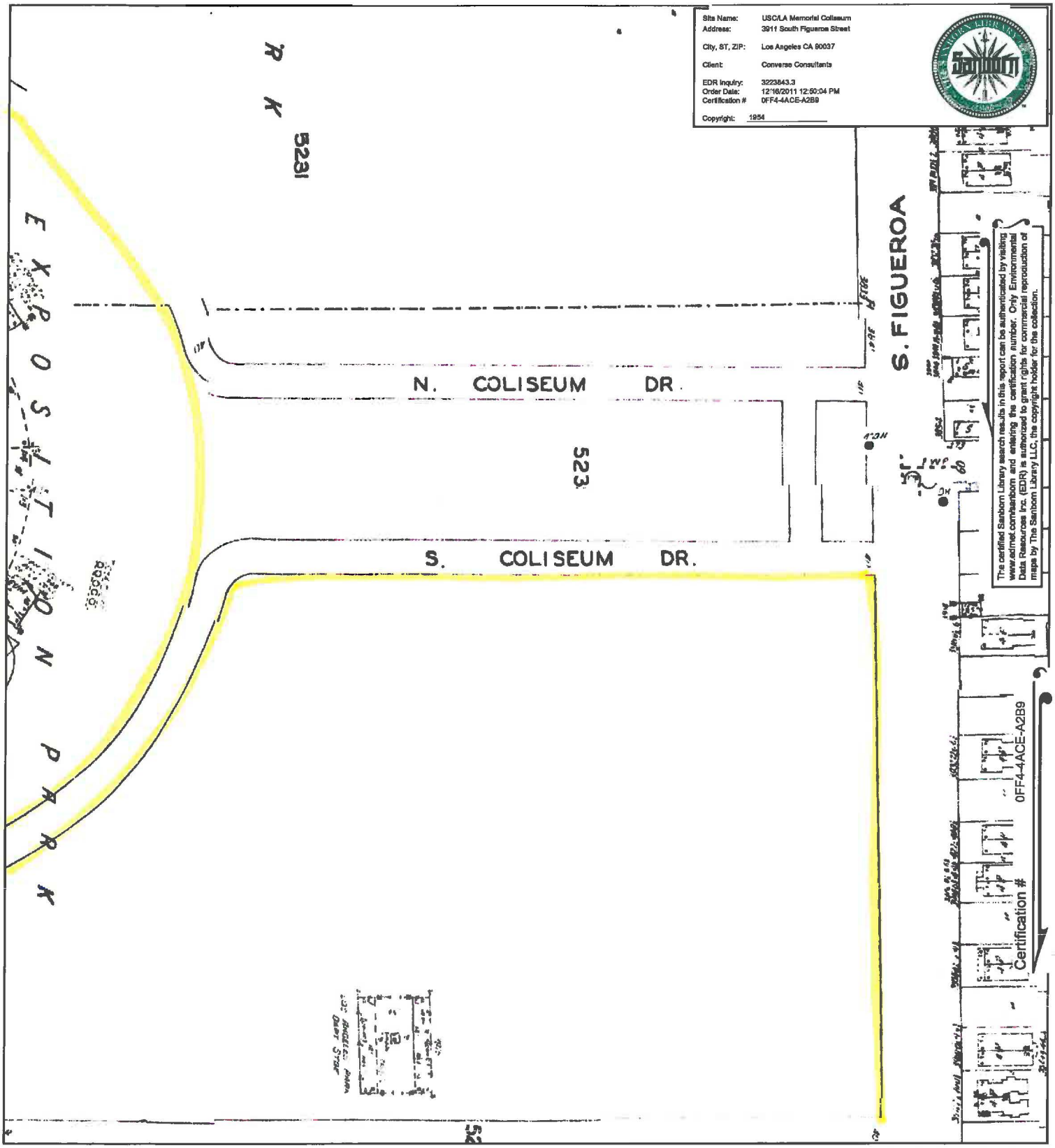


Volume 5, Sheet 556
Volume 5, Sheet 557
Volume 5, Sheet 555

0 Feet 165 330 660

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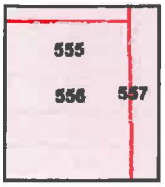
1954 Certified Sanborn Map



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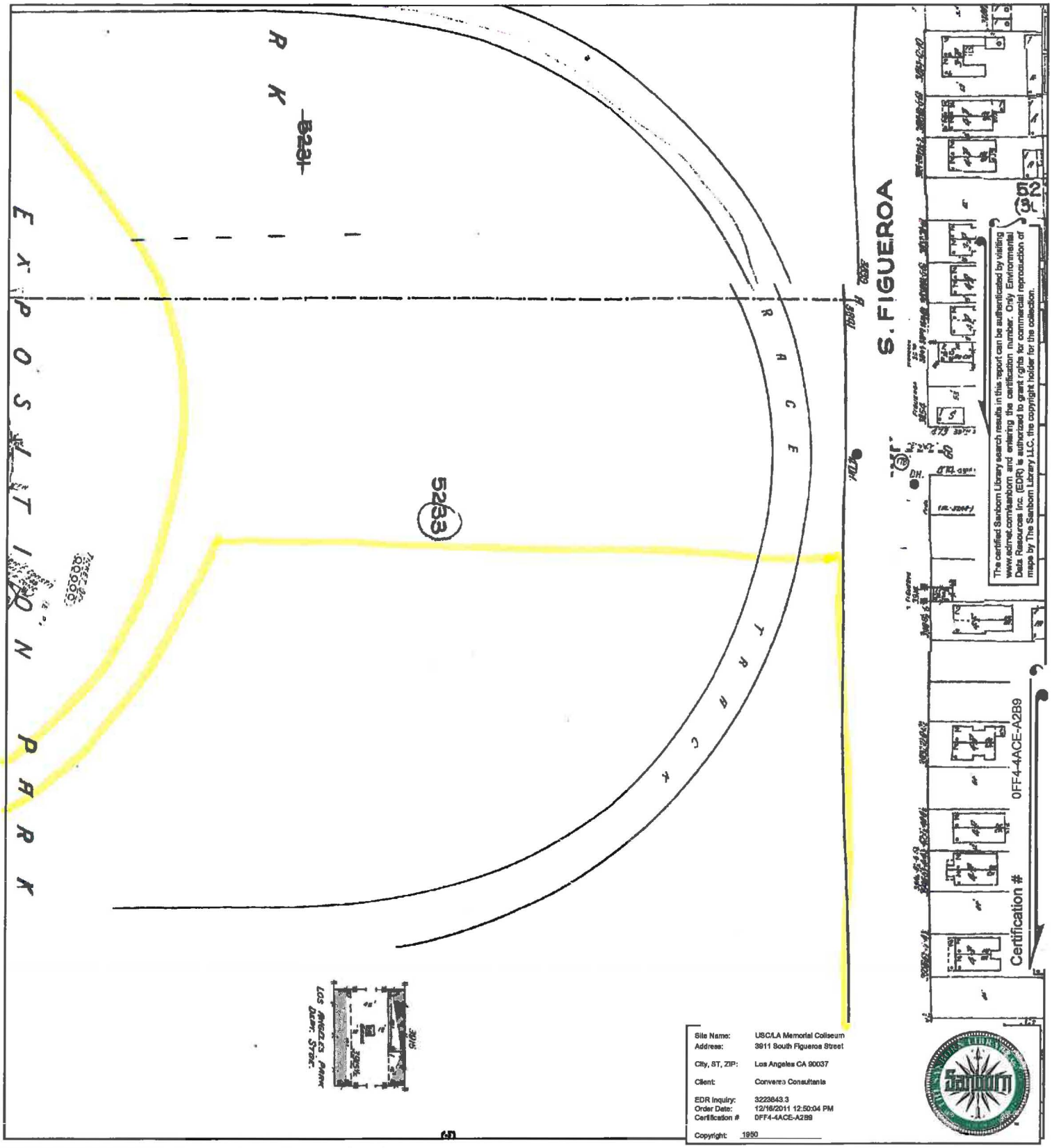


Volume 5, Sheet 555
Volume 5, Sheet 556
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Volume 5, Sheet 556

Volume 5, Sheet 557

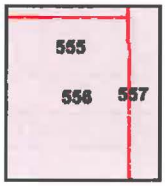
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1950 Certified Sanborn Map



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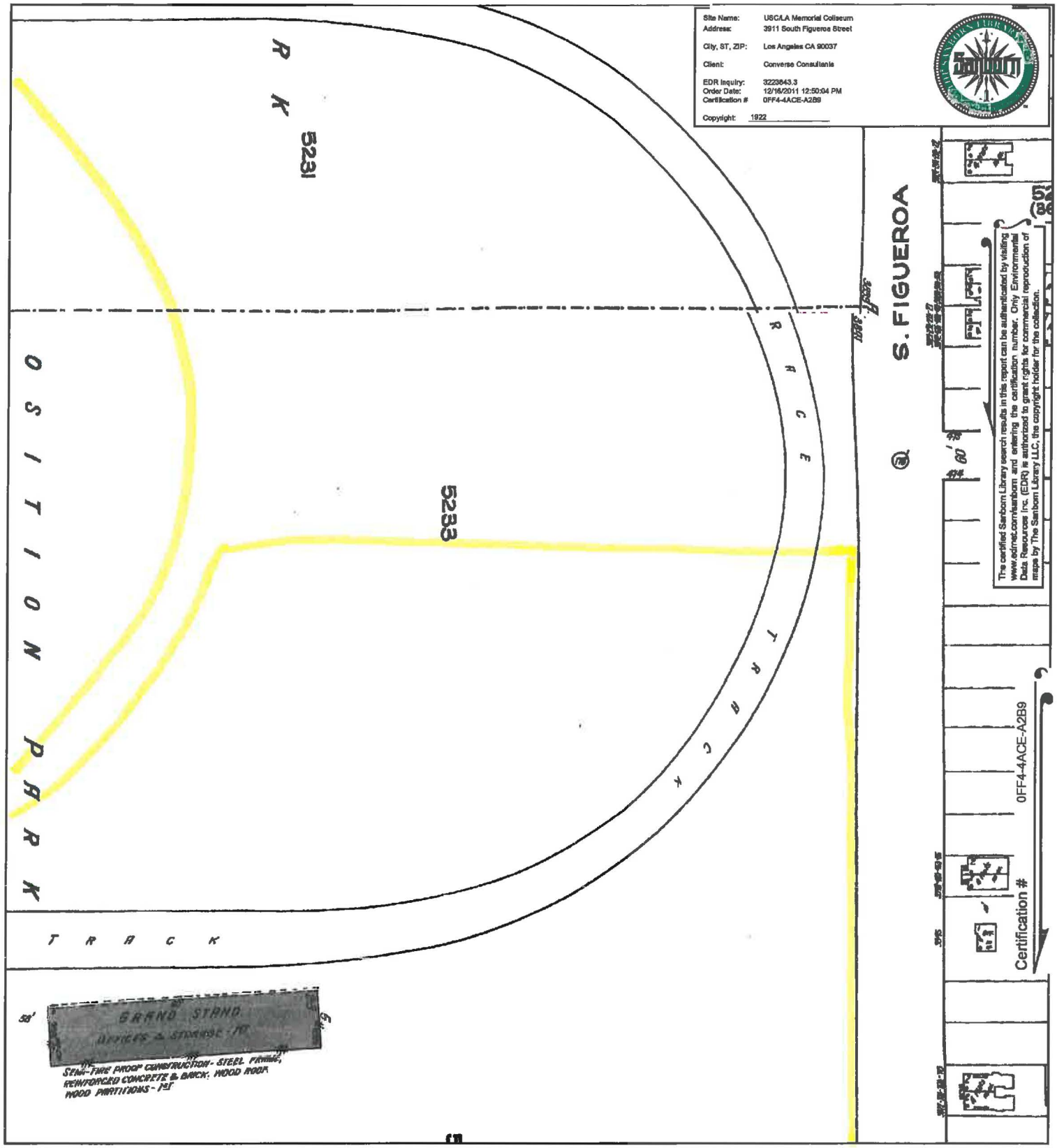




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Volume 5, Sheet 556
Volume 5, Sheet 557

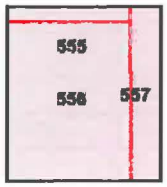
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1922 Certified Sanborn Map



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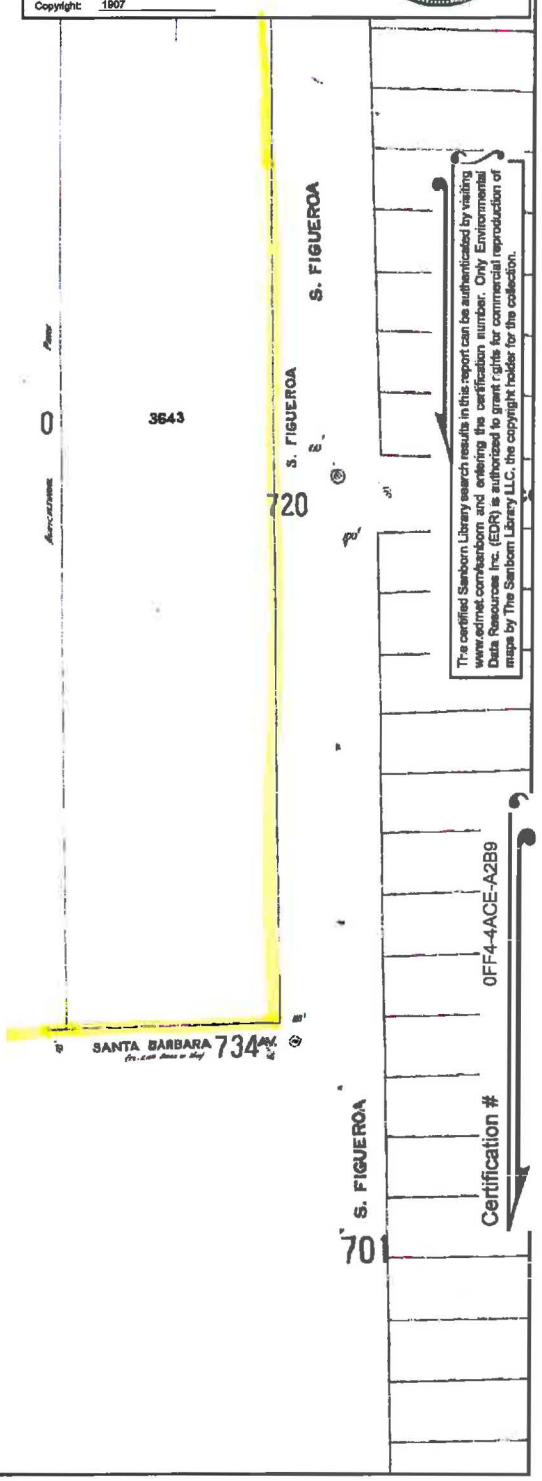
Volume 5, Sheet 555
Volume 5, Sheet 556
Volume 5, Sheet 557

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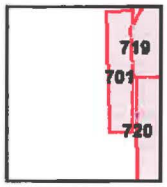
1907 Certified Sanborn Map

Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, ST, ZIP: Los Angeles CA 90037
Client: Comforse Consultants
EDR Inquiry: 3223843.3
Order Date: 12/16/2011 12:50:04 PM
Certification #: 0FF4-4ACE-A2B9
Copyright: 1907



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Volume 6, Sheet 701
Volume 6, Sheet 719
Volume 6, Sheet 720

0 Feet 165 330 660

N

USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

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Milford, CT 06461
800.352.0050
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Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

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Certified Sanborn Results:

Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

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Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	1900

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- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets



Volume 5, Sheet 555

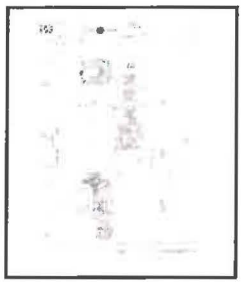


Volume 5, Sheet 556

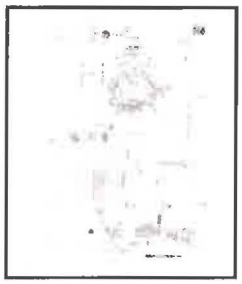
1968 Source Sheets



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Volume 5, Sheet 555

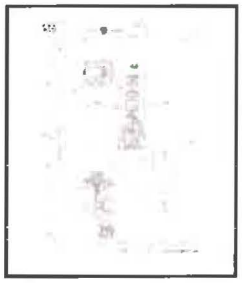


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1966 Source Sheets



Volume 5, Sheet 527



Volume 5, Sheet 555



Volume 5, Sheet 556

1960 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1959 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1958 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556

1957 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 555

1954 Source Sheets



Volume 5, Sheet 555



Volume 5, Sheet 556



Volume 5, Sheet 555



Volume 5, Sheet 556

1950 Source Sheets

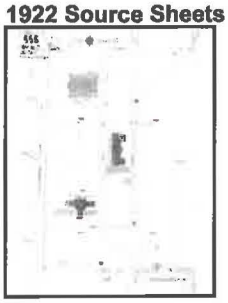


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Volume 5, Sheet 556

1922 Source Sheets



Volume 5, Sheet 555



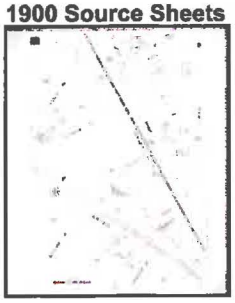
Volume 5, Sheet 556

1907 Source Sheets



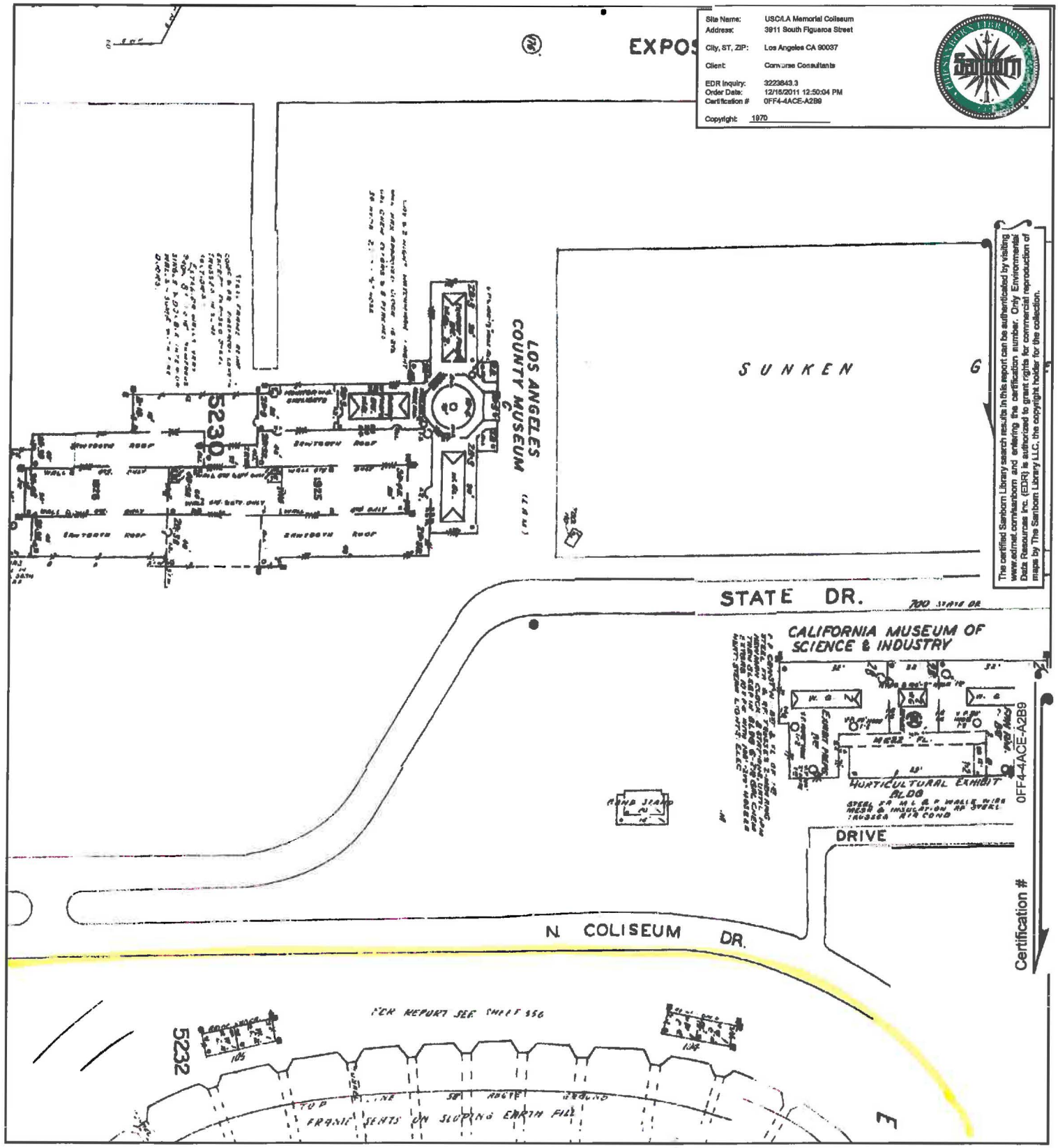
Volume 6, Sheet 731

1900 Source Sheets



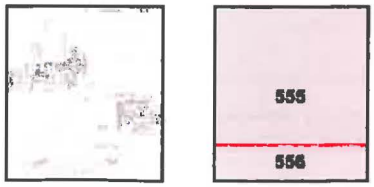
Volume 4, Sheet 181

1970 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.

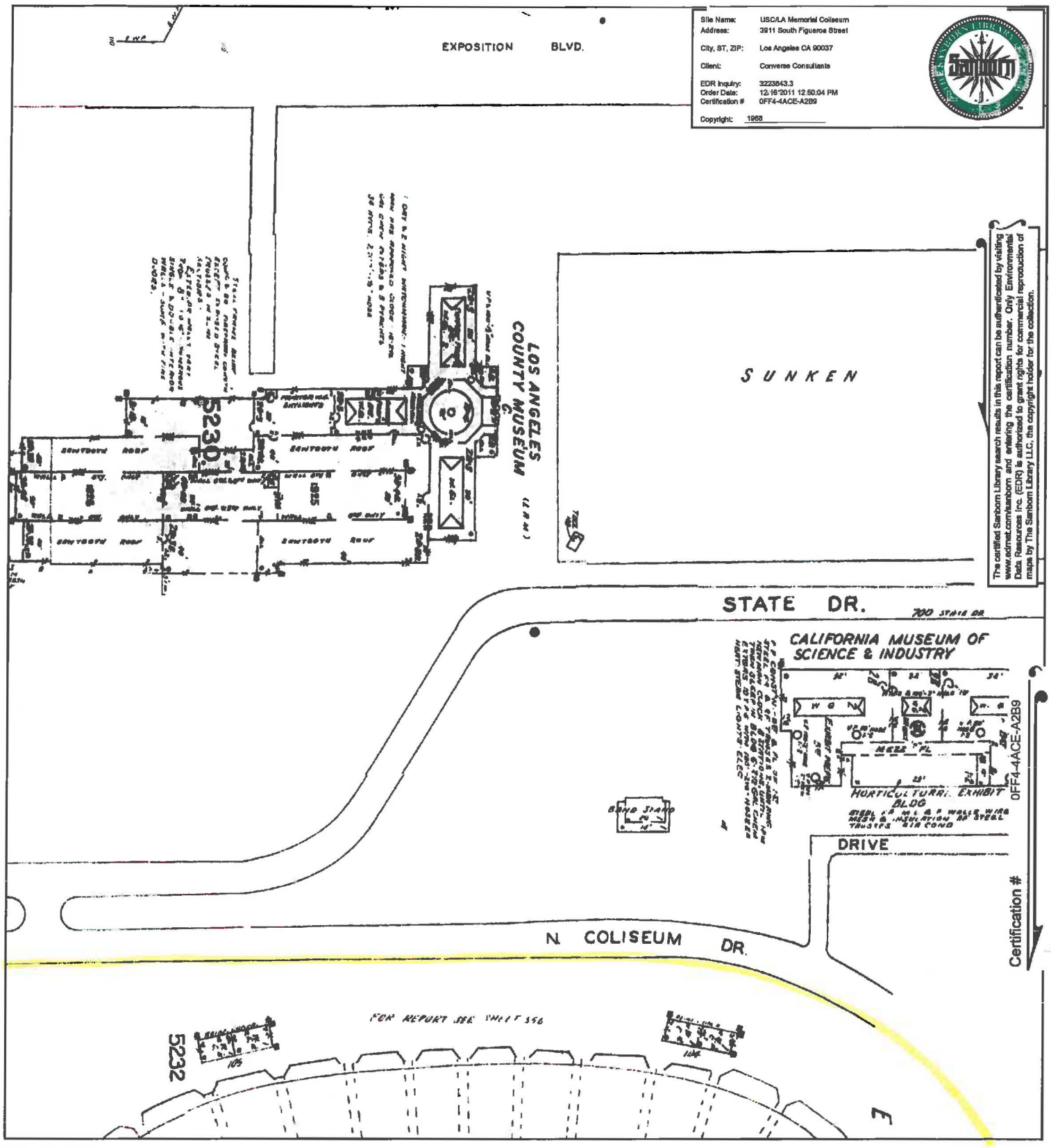
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Volume 5, Sheet 556

N

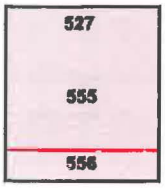
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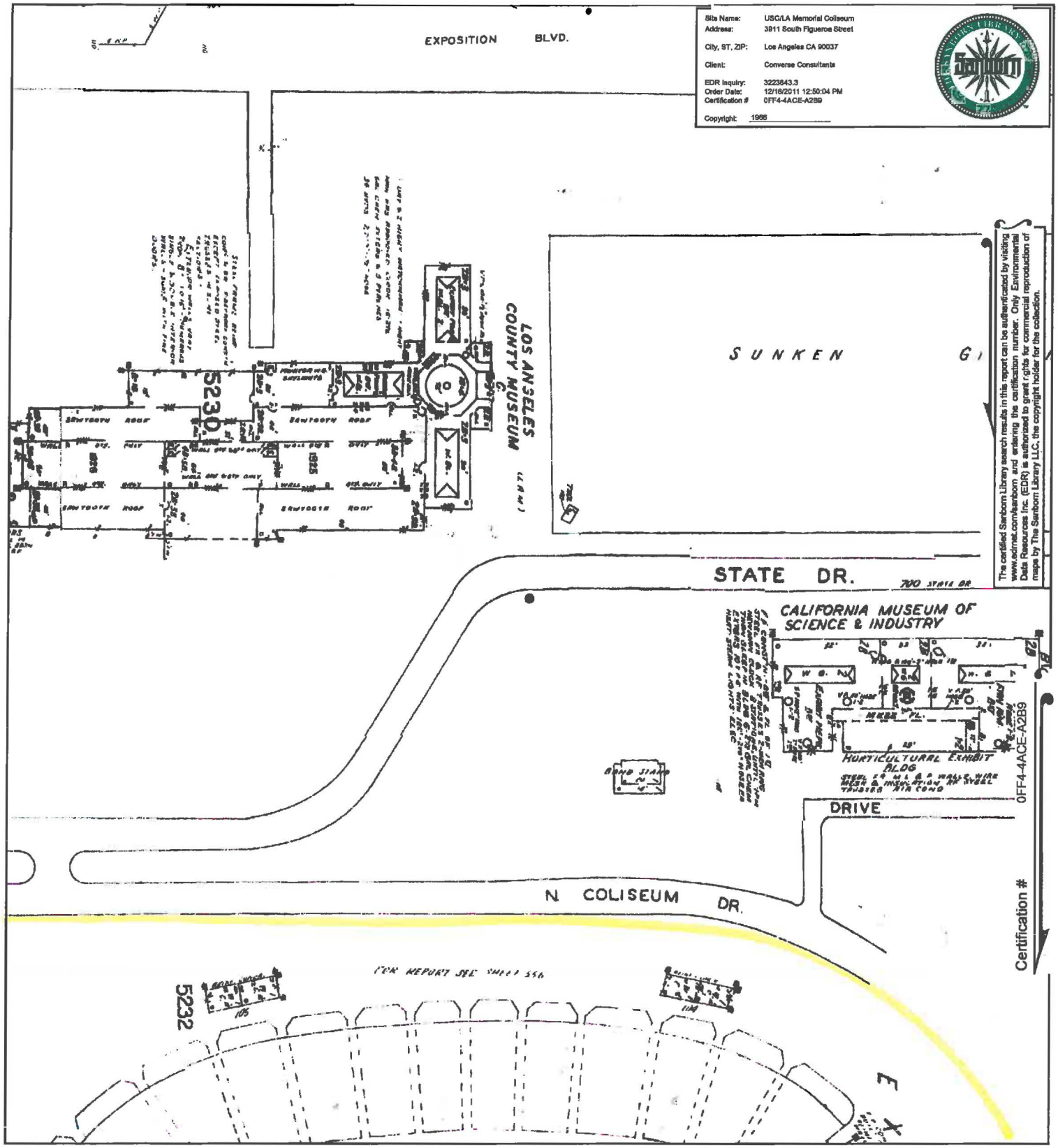




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Volume 5, Sheet 555
Volume 5, Sheet 556

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1966 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.

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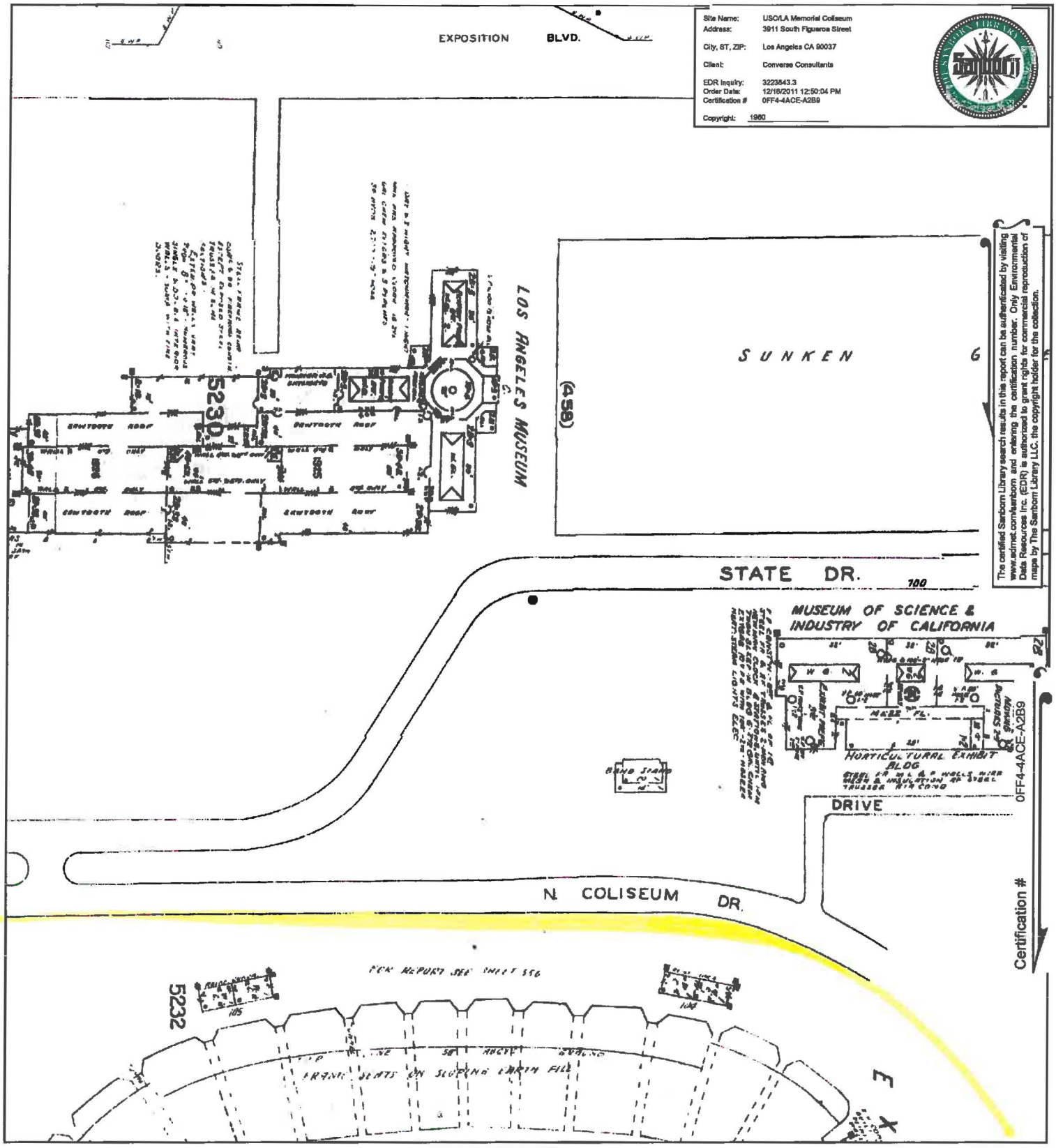




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Volume 5, Sheet 555
Volume 5, Sheet 556

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1960 Certified Sanborn Map



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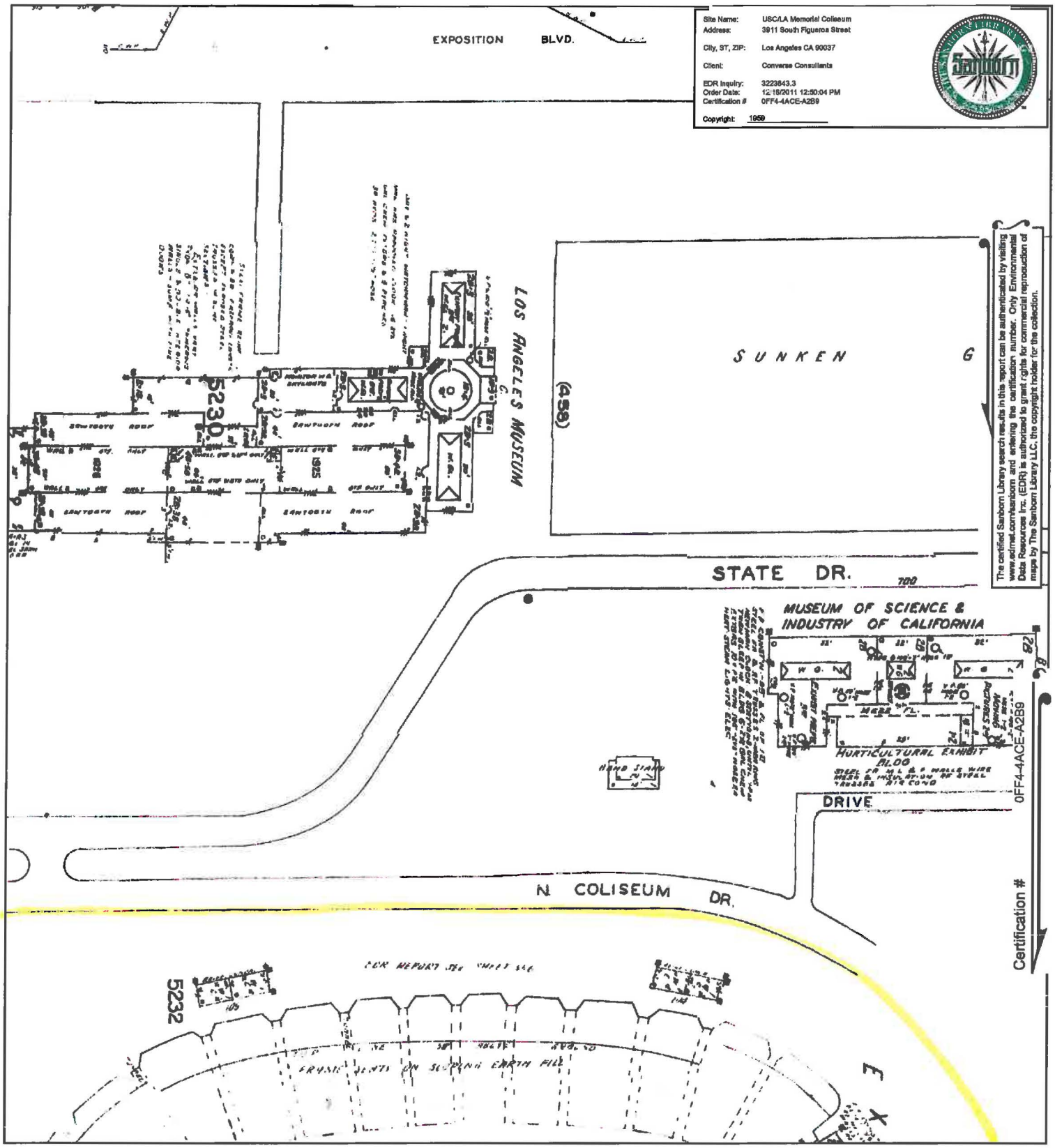
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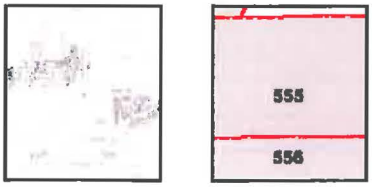
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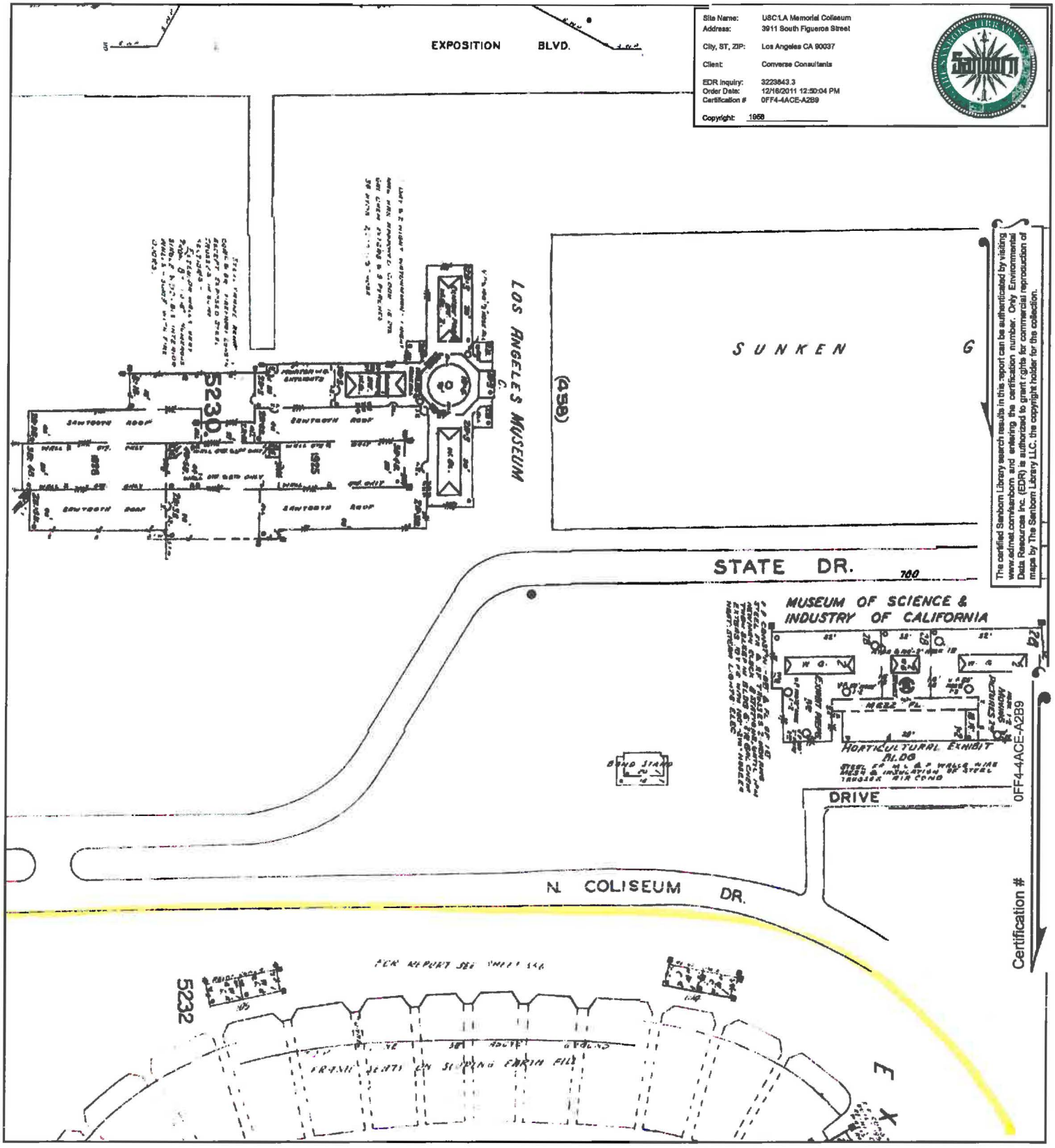
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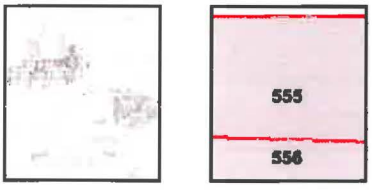
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1958 Certified Sanborn Map



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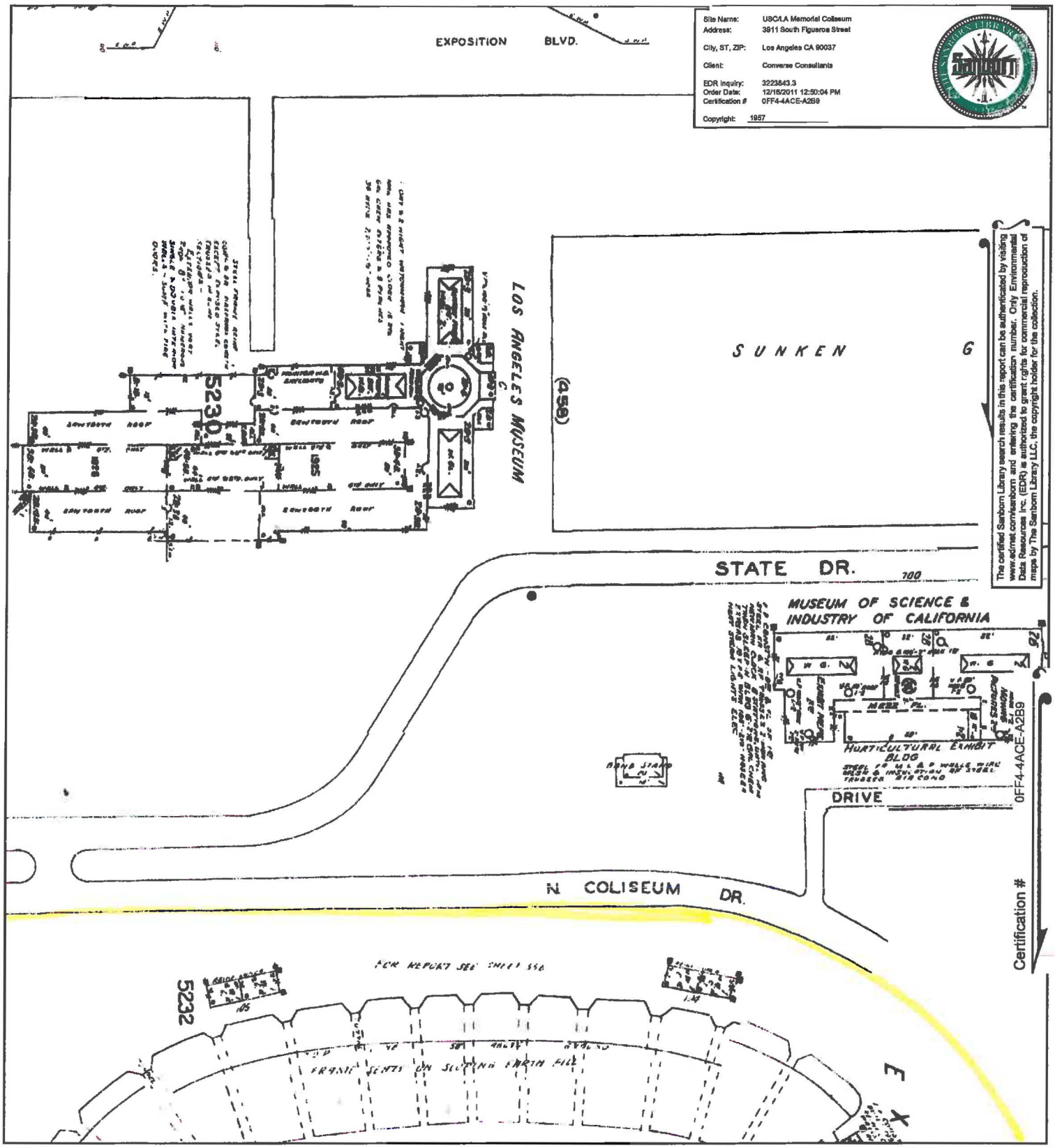
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N

1957 Certified Sanborn Map



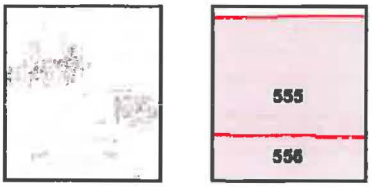
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Address: 3911 South Figueroa Street
City, ST, ZIP: Los Angeles CA 90037
Client: Converse Consultants
EDR Inquiry: 3223843.3
Order Date: 12/15/2011 12:50:04 PM
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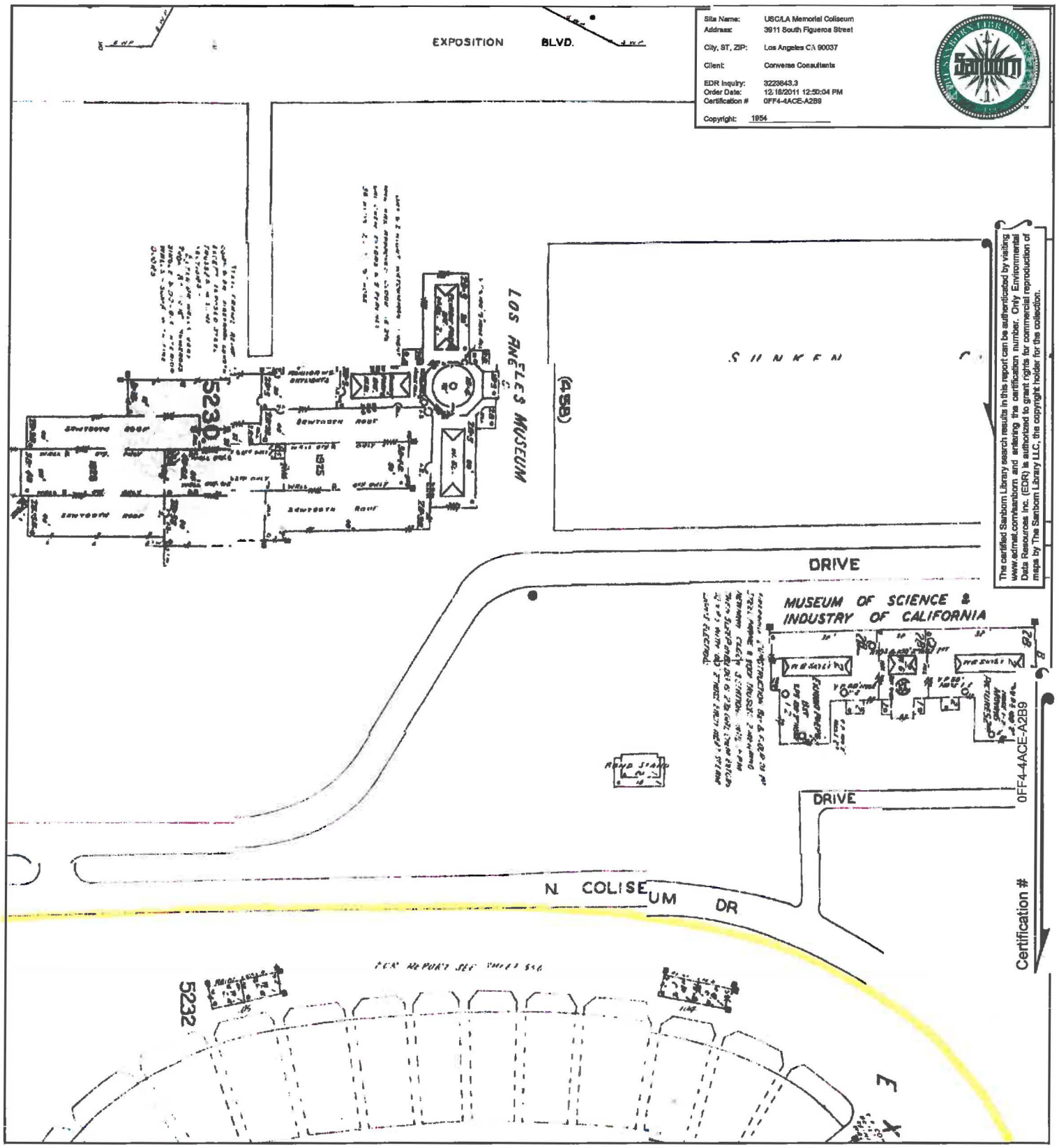
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Volume 5, Sheet 555

N

1954 Certified Sanborn Map



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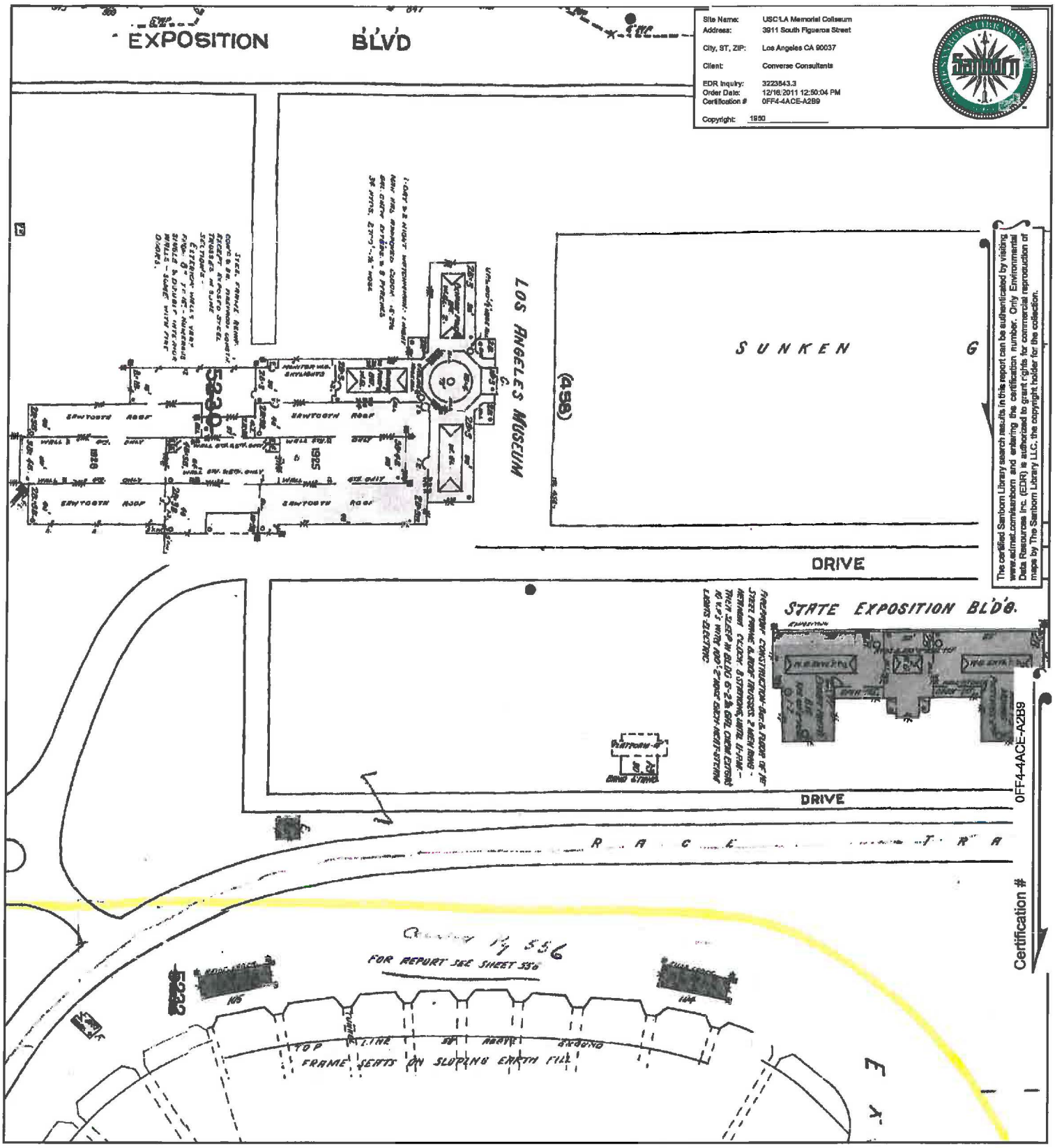


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Volume 5, Sheet 556
Volume 5, Sheet 555
Volume 5, Sheet 556

0 Feet 165 330 660

N

1950 Certified Sanborn Map



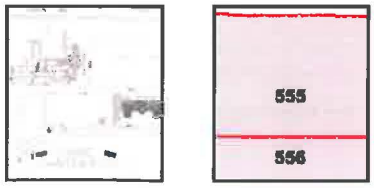
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Address: 3911 South Figueroa Street
City, ST, ZIP: Los Angeles CA 90037
Client: Converse Consultants
EDR Inquiry: 3223843.3
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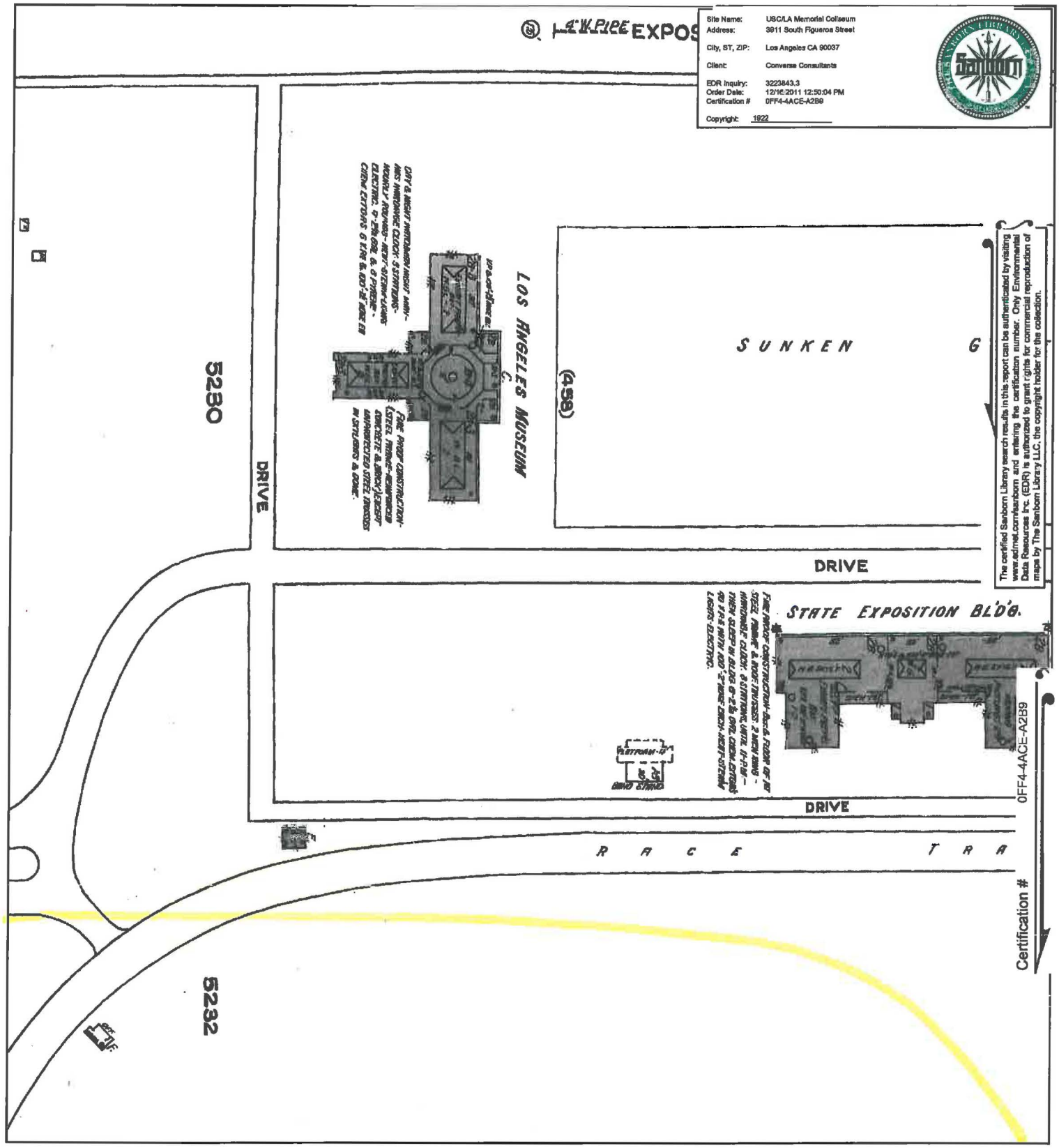
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Volume 5, Sheet 555
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N

1922 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.

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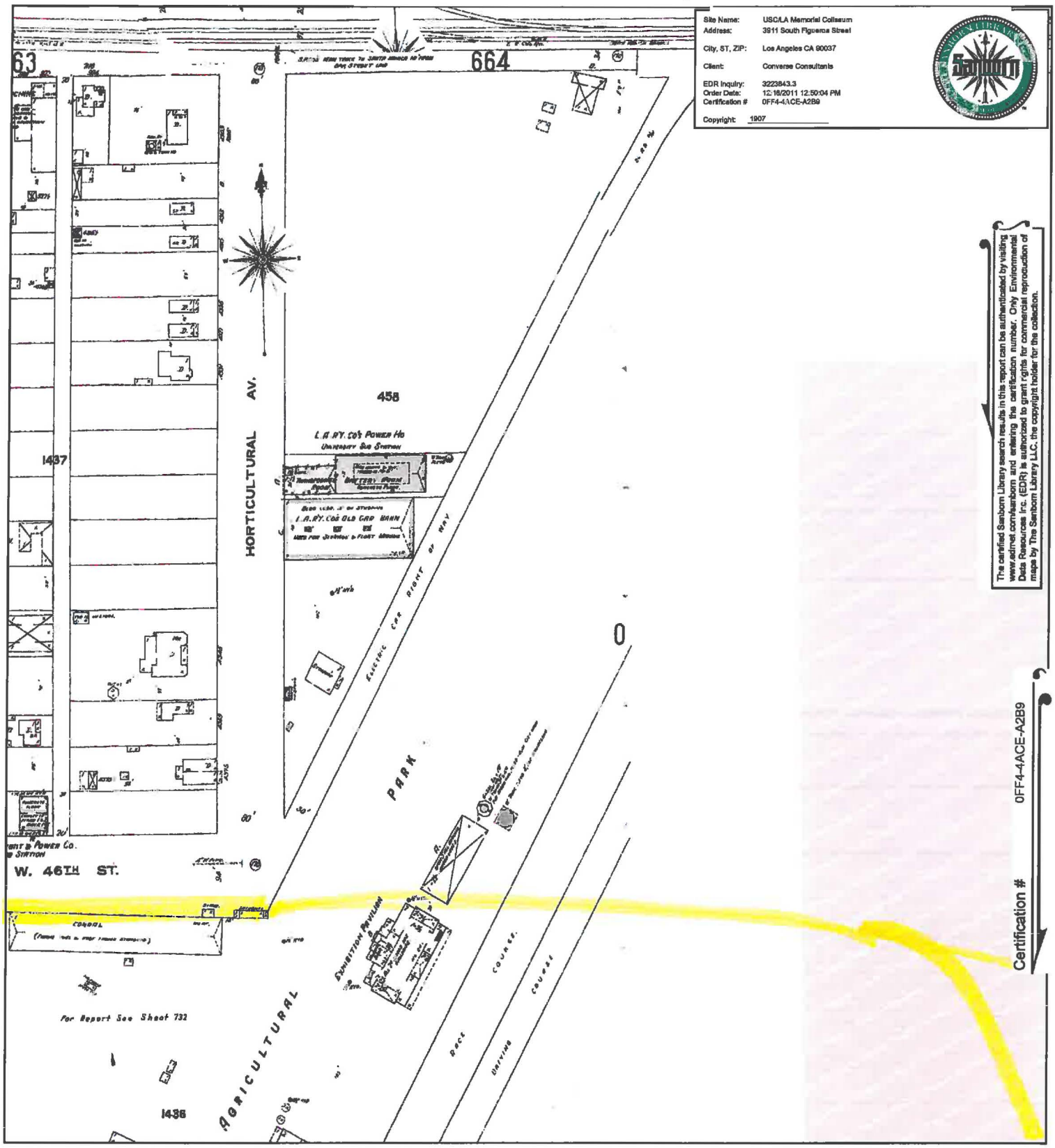




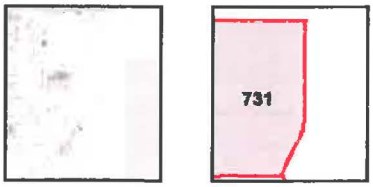
Volume 5, Sheet 555
Volume 5, Sheet 556

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1907 Certified Sanborn Map



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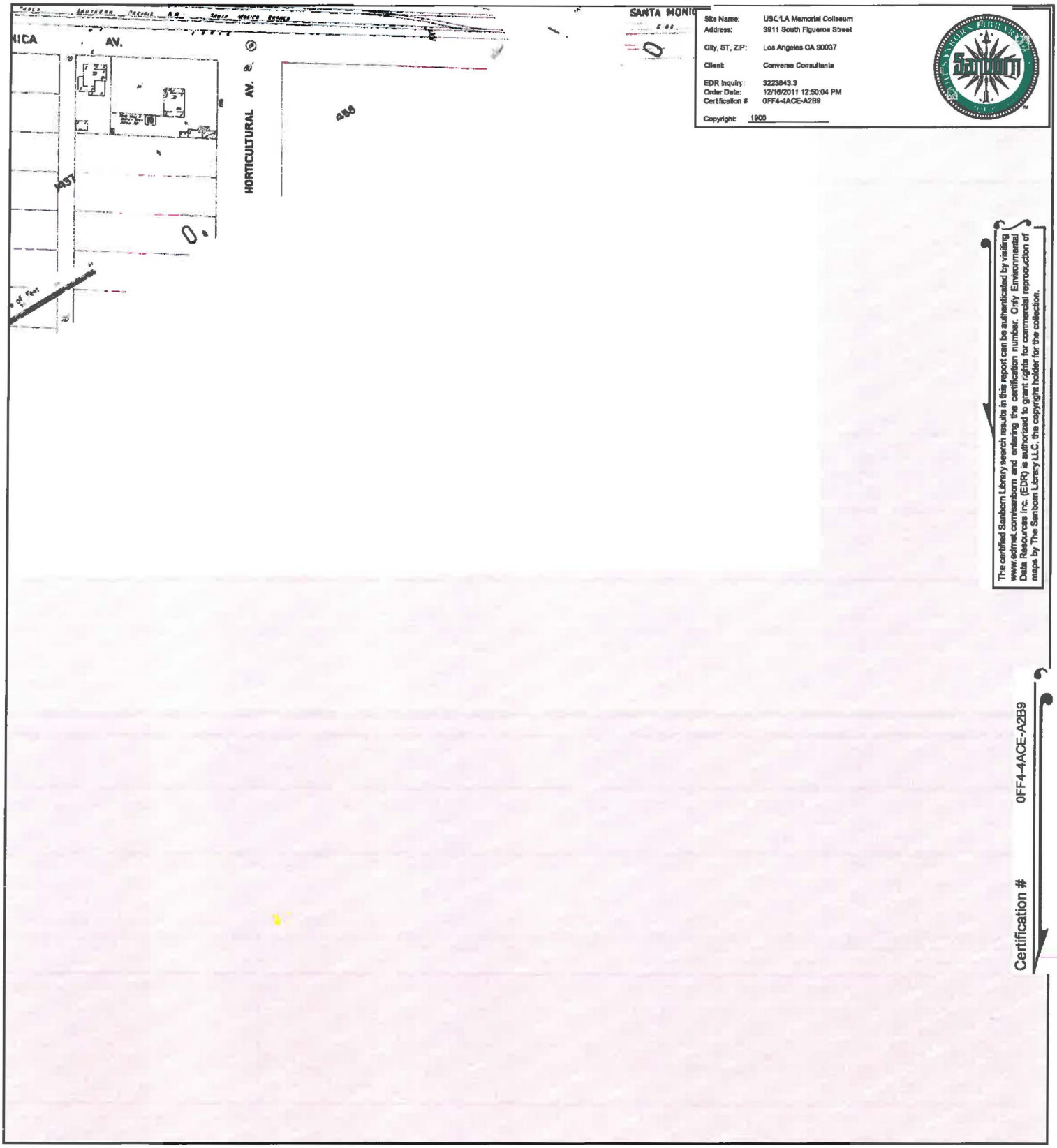


Volume 6, Sheet 731

0 Feet 165 330 660

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1900 Certified Sanborn Map

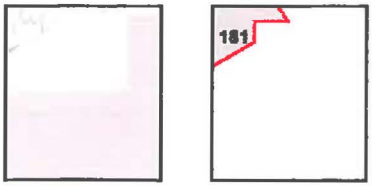


Site Name: USC/LA Memorial Coliseum
Address: 3911 South Figueroa Street
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0 Feet 165 330 660

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.3
December 16, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

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Milford, CT 06461
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Certified Sanborn® Map Report

12/16/11

Site Name:
USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Client Name:
Converse Consultants
222 East Huntington Drive
Monrovia, CA 91016

EDR Inquiry # 3223843.3

Contact: Lisa Walldez

EDR® Environmental Data Resources Inc

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Address: 3911 South Figueroa Street
City, State, Zip: Los Angeles, CA 90037
Cross Street:
P.O. # 10-42-176-01
Project: 10-42-176-01
Certification # 0FF4-4ACE-A2B9

Sanborn® Library search results
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Maps Provided:

1970	1957
1968	1954
1966	1950
1960	1922
1959	1907
1958	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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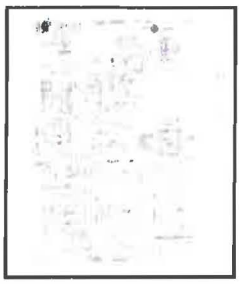
Sanborn Sheet Thumbnails

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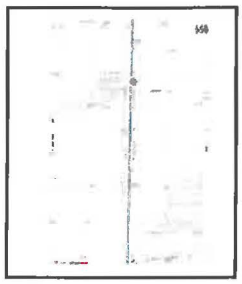
Volume 5, Sheet 589



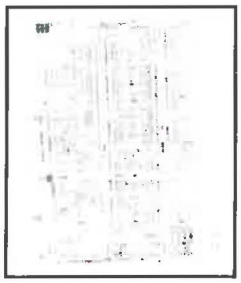
Volume 5, Sheet 591



Volume 5, Sheet 556

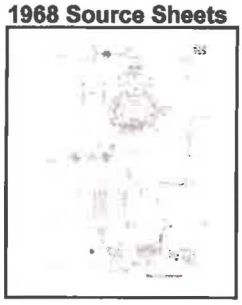


Volume 5, Sheet 558

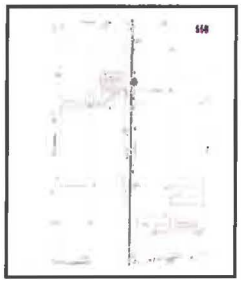


Volume 5, Sheet 569

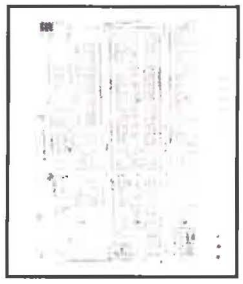
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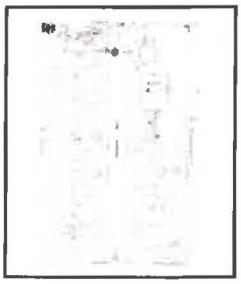
Volume 5, Sheet 556



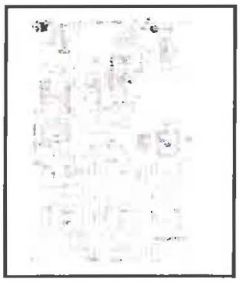
Volume 5, Sheet 558



Volume 5, Sheet 569



Volume 5, Sheet 589



Volume 5, Sheet 591

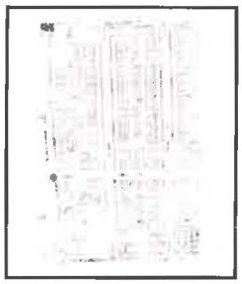
1966 Source Sheets



Volume 5, Sheet 556



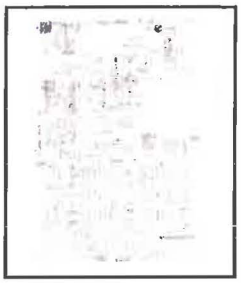
Volume 5, Sheet 558



Volume 5, Sheet 569

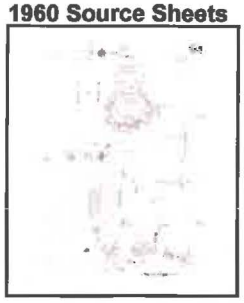


Volume 5, Sheet 589

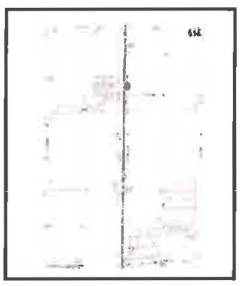


Volume 5, Sheet 591

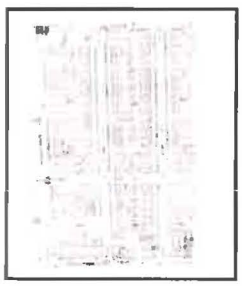
1960 Source Sheets



Volume 5, Sheet 556



Volume 5, Sheet 558



Volume 5, Sheet 569

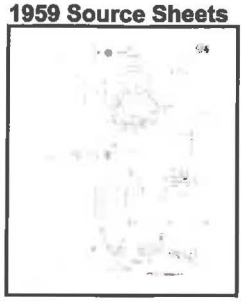


Volume 5, Sheet 589

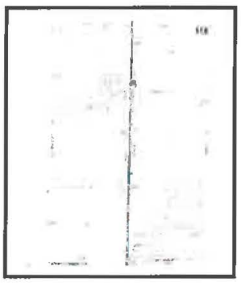


Volume 5, Sheet 591

1959 Source Sheets



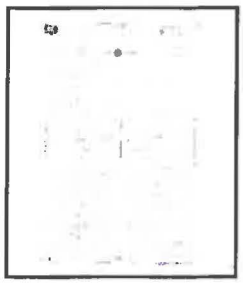
Volume 5, Sheet 556



Volume 5, Sheet 558



Volume 5, Sheet 569

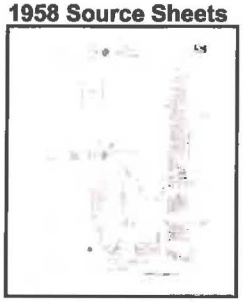


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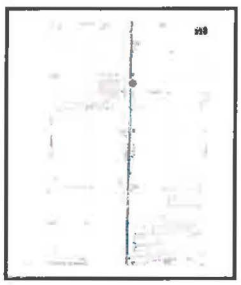


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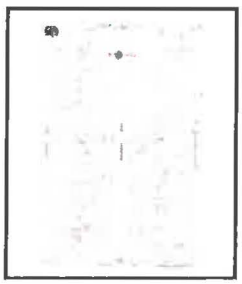
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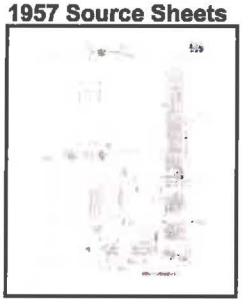


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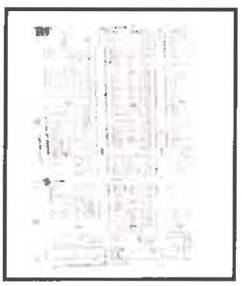
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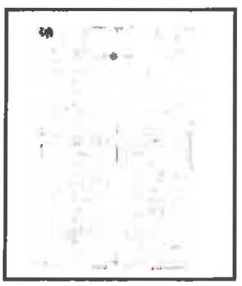
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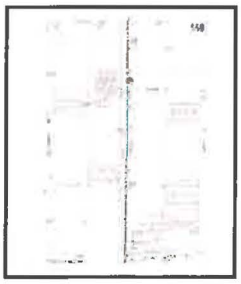


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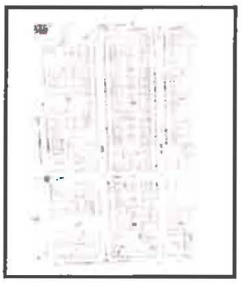
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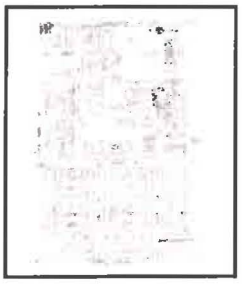
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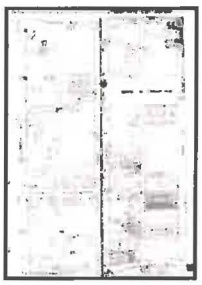
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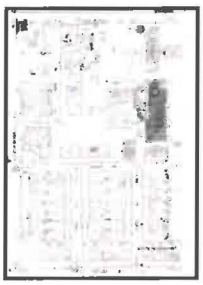
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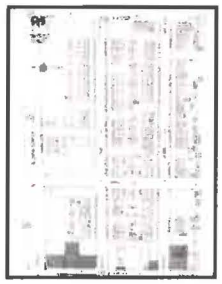
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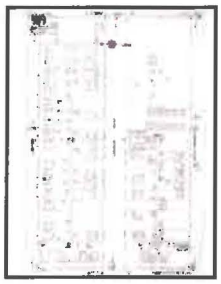
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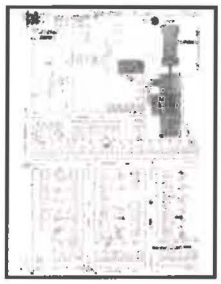
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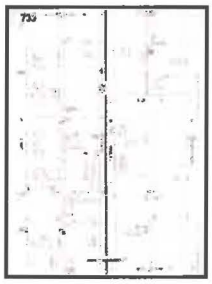


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1970 Certified Sanborn Map

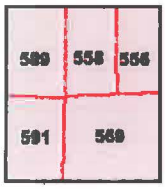


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Copyright:	1970

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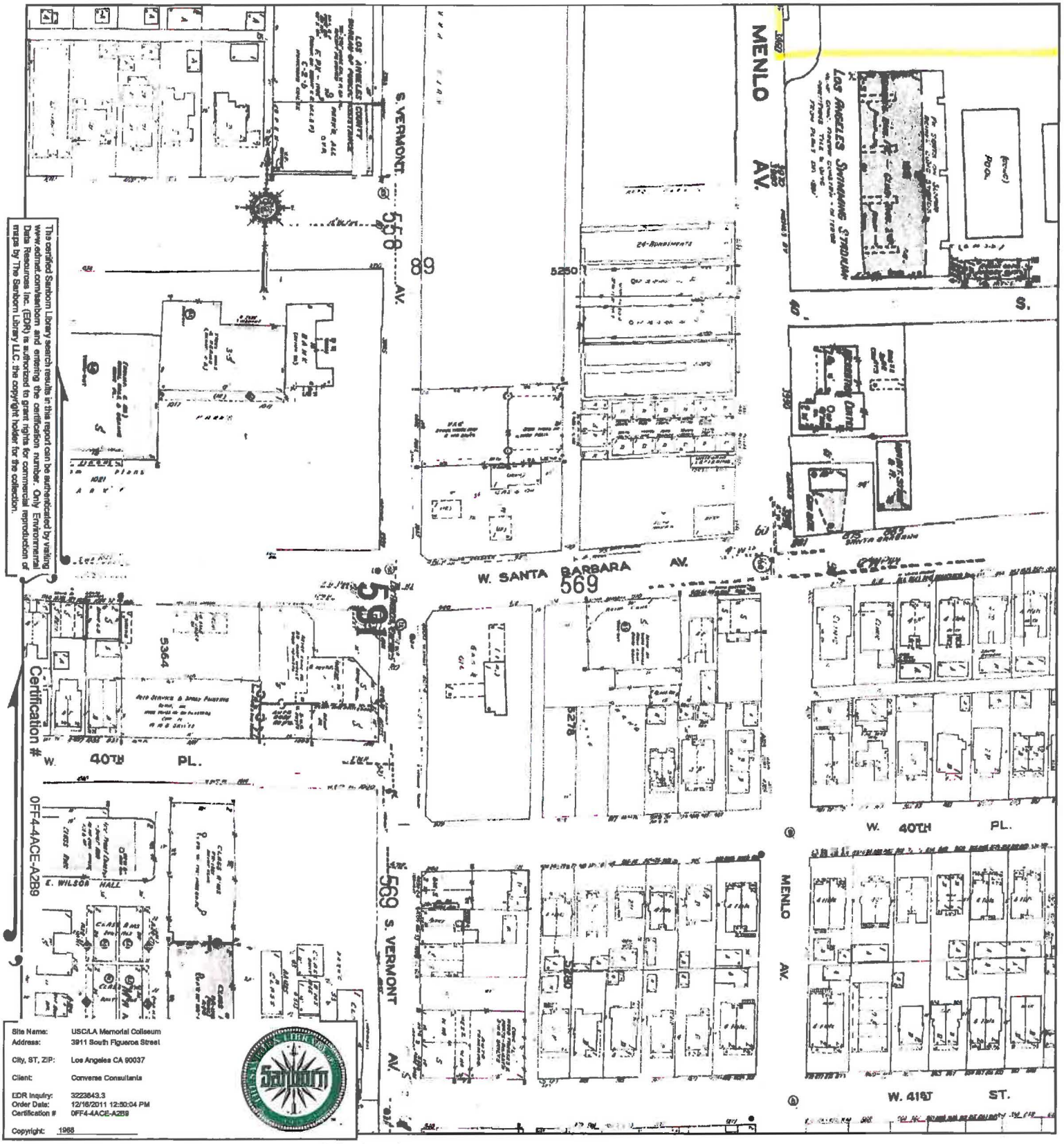


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1968 Certified Sanborn Map



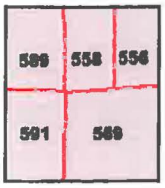
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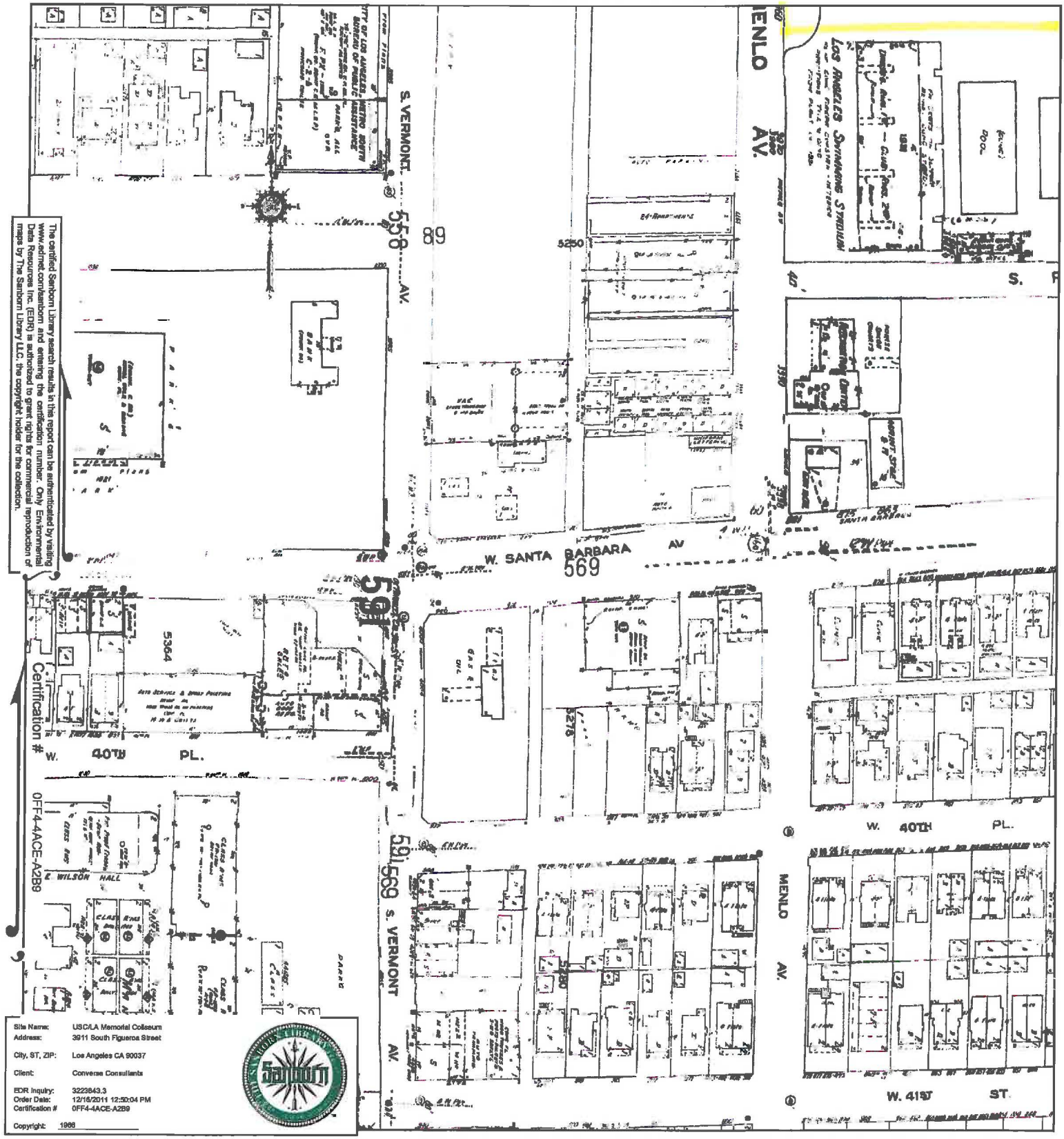


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1966 Certified Sanborn Map



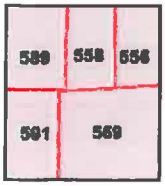
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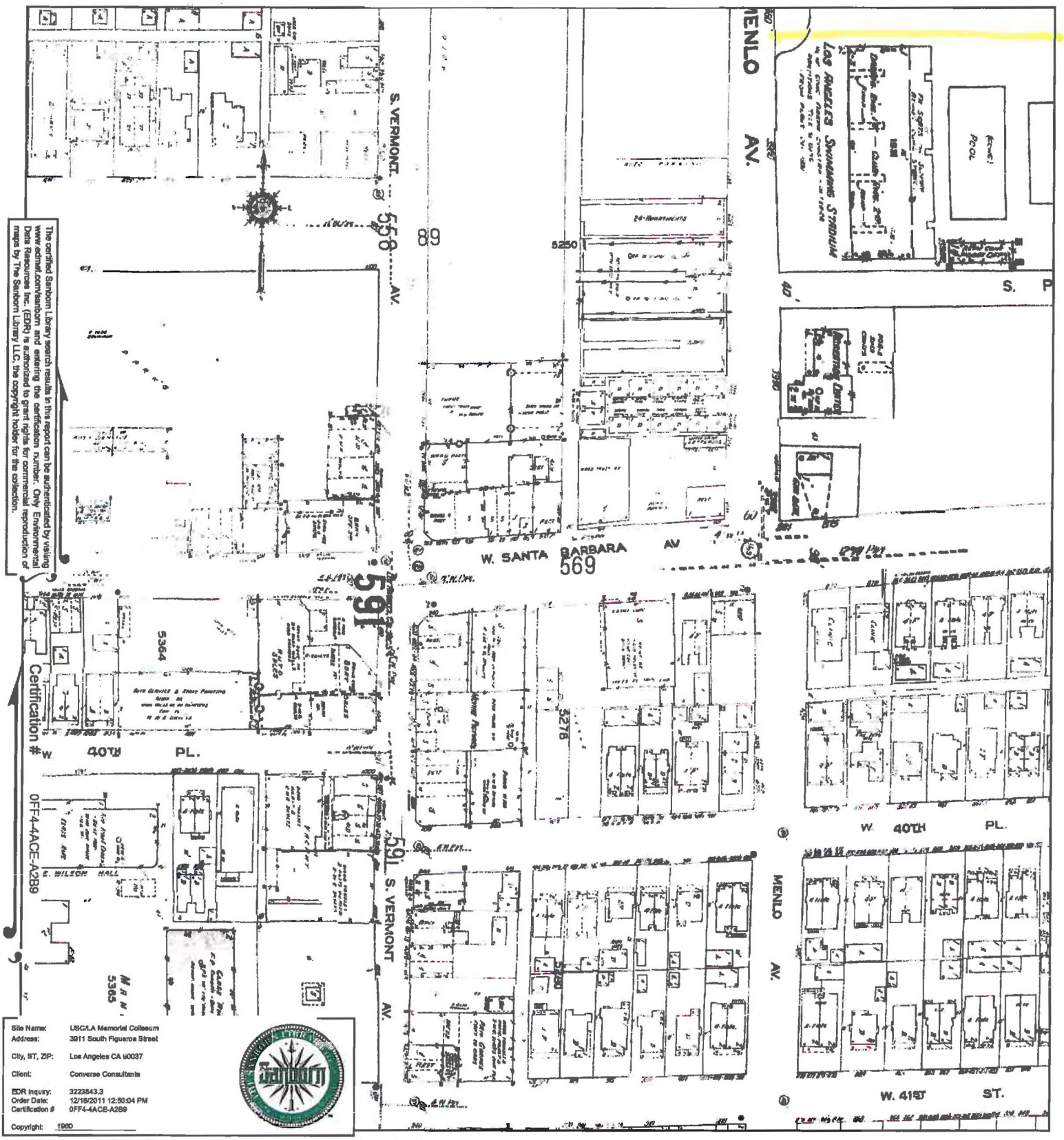


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1960 Certified Sanborn Map



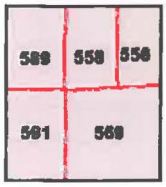
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Copyright:	1960

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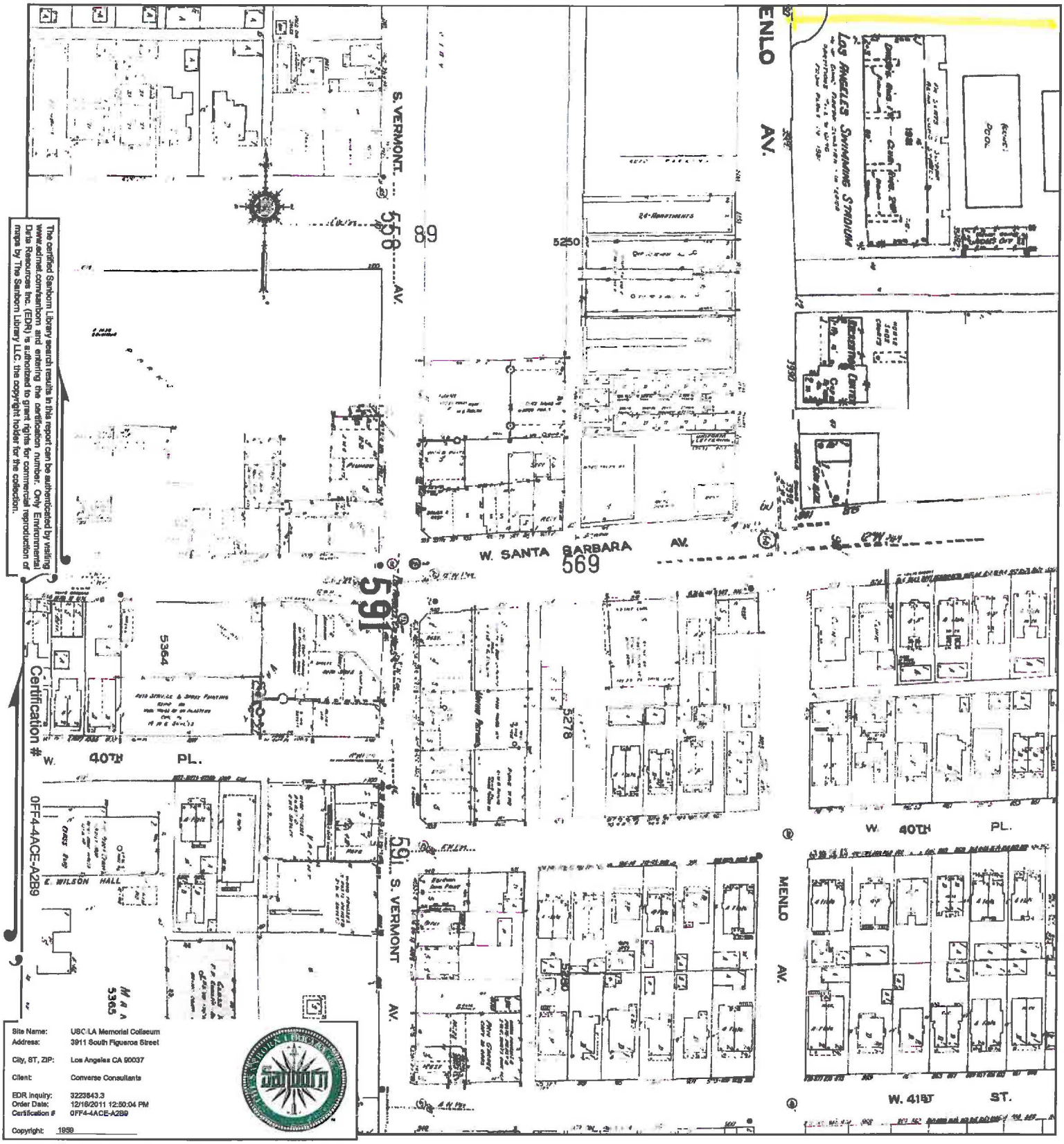


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1959 Certified Sanborn Map



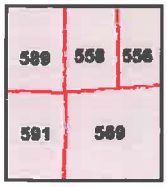
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1958 Certified Sanborn Map



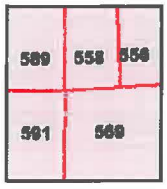
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Copyright:	1958

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1957 Certified Sanborn Map



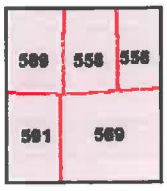
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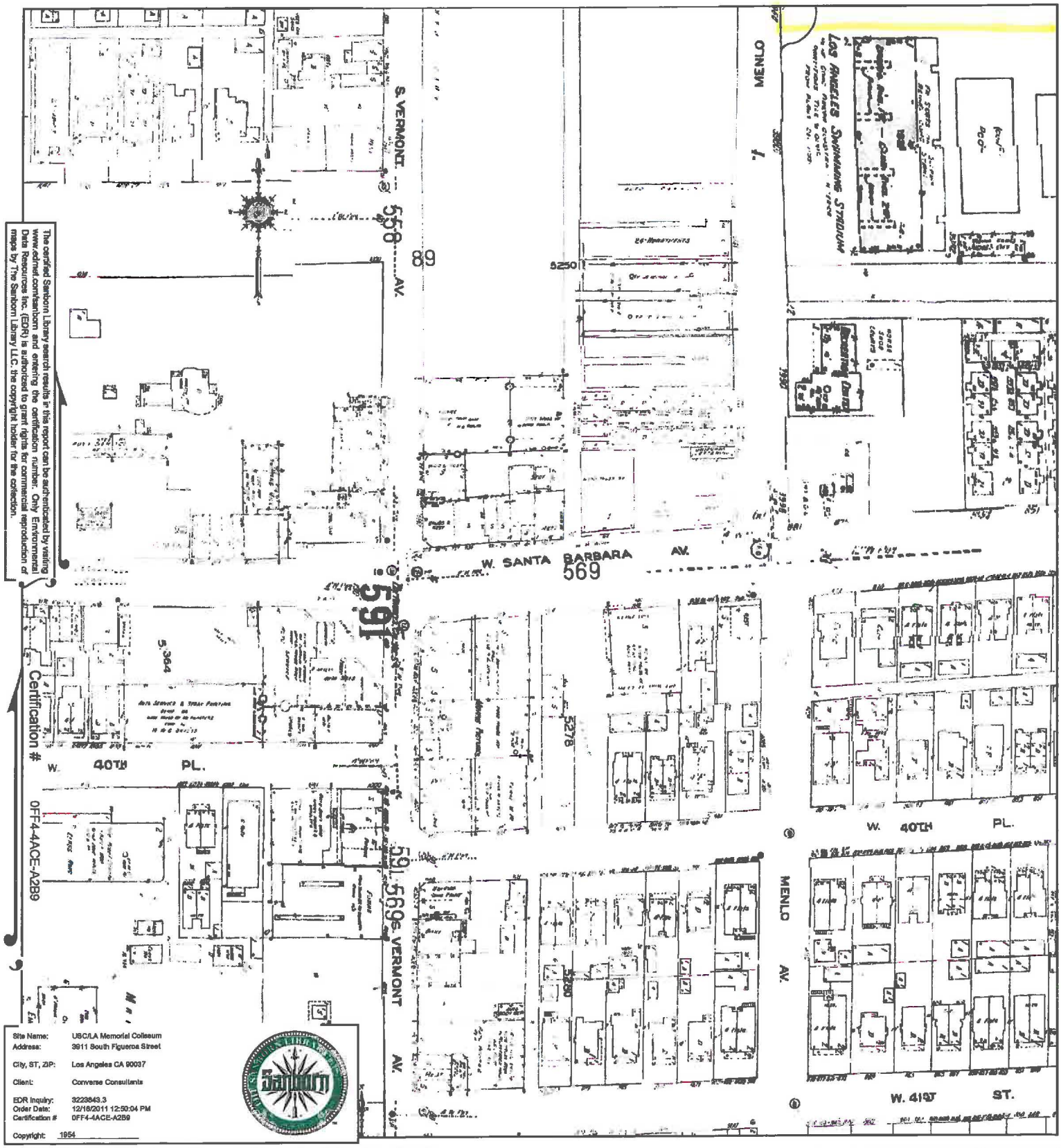


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1954 Certified Sanborn Map



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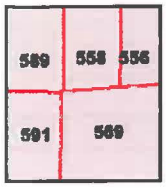
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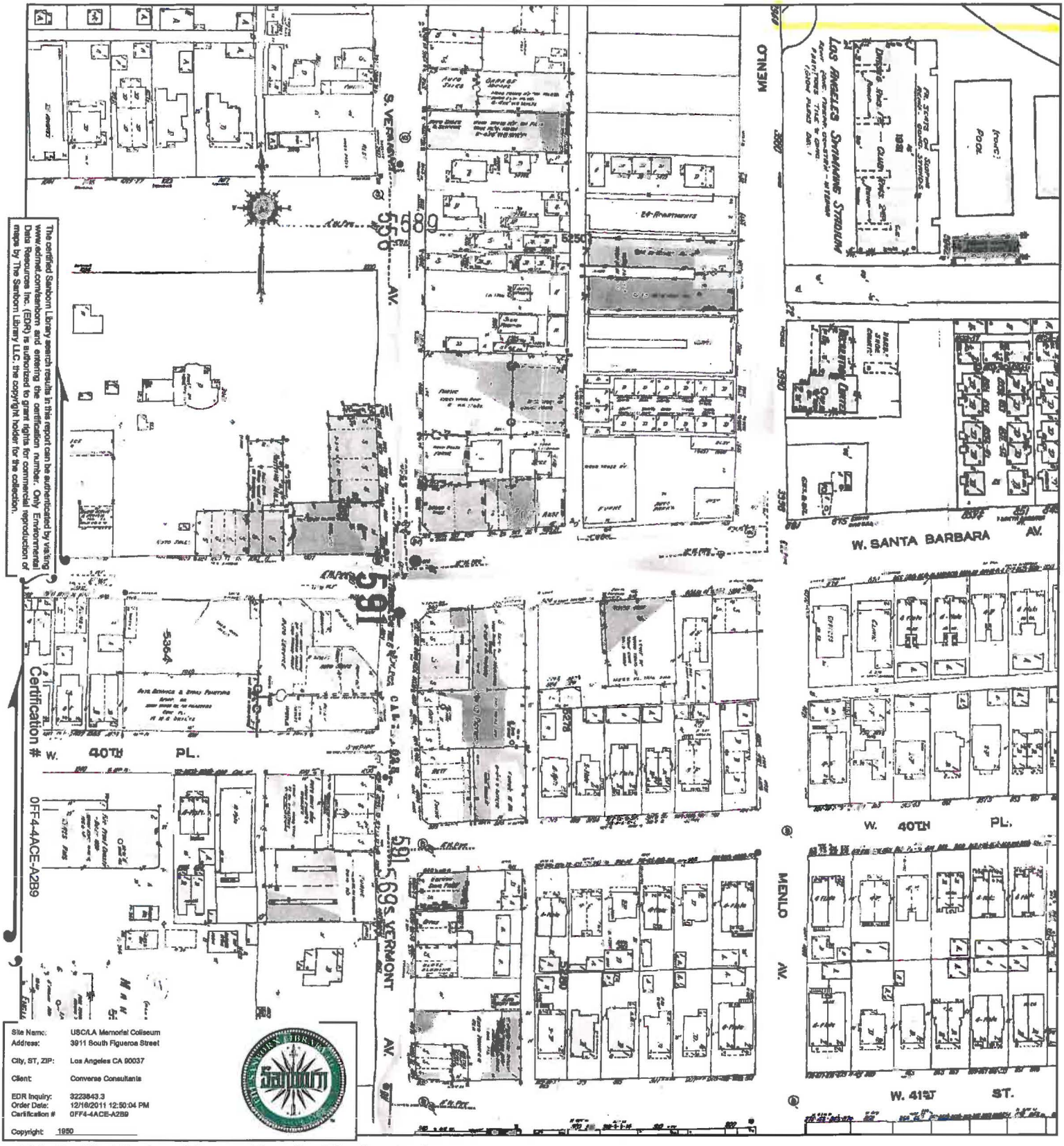




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1950 Certified Sanborn Map



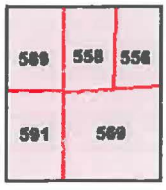
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Copyright:	1950

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1922 Certified Sanborn Map



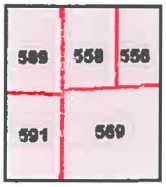
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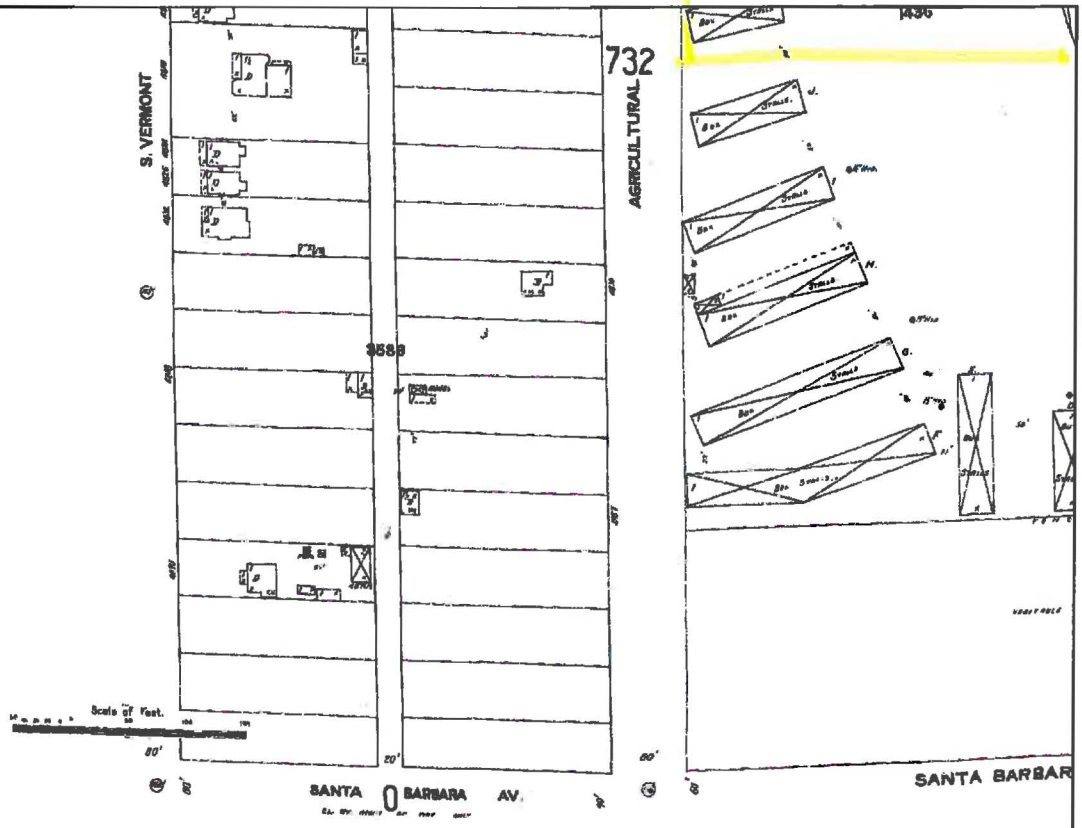


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1907 Certified Sanborn Map

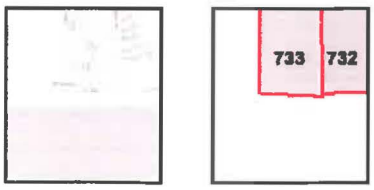


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City Directory Abstract

Appendix E

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USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.4
December 13, 2011

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2006. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2006	Haines Company, Inc	X	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	-	-	-	-
2000	Haines & Company	-	X	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	-	-	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	X	X	-
1990	Pacific Bell	X	X	X	-
1986	Pacific Bell	X	X	X	-
1985	Pacific Bell	-	X	X	-
1981	Pacific Telephone	X	X	X	-
1980	Pacific Telephone	-	-	-	-
1976	Pacific Telephone	X	X	X	-
1975	Pacific Telephone Co	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	X	X	X	-
1970	GTE	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	X	X	X	-
1966	Pacific Telephone	-	-	-	-
1965	Pacific Telephone	-	X	X	-
1964	Pacific Telephone	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	X	X	X	-
1961	Luskey Brothers & Co	-	-	-	-
1960	General Telephone Company Publishers	X	-	X	-
1958	Pacific Telephone	X	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	General Telephone Company Publishers	-	-	-	-
1955	Home Directory Service	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Pacific Telephone & Telegraph Co.	X	X	X	-
1950	Pacific Telephone	-	-	-	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Los Angeles Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	X	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1937	Los Angeles Directory Co.	X	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	X	X	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	X	X	X	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	X	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Kaasen Directory Company Publishers	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	X	X	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
3939 South Figueroa Street	Client Entered	X
729 West Santa Barbara Avenue	Client Entered	
3820 South Vermont Avenue	Client Entered	
3912 South Vermont Avenue	Client Entered	
3836 South Vermont Avenue	Client Entered	
3910 South Vermont Avenue	Client Entered	
921 West 39th Street	Client Entered	
926 West 39th Street	Client Entered	
928 West 39th Street	Client Entered	

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

3911 South Figueroa Street
Los Angeles, CA 90037

FINDINGS DETAIL

Target Property research detail.

Year	Uses	Source
2006	COLSM	Haines Company, Inc
	MAIN EVENT LA	Haines Company, Inc
1990	ARENA SPORTS & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
	COLISEUM & SPORTS ARENA LOS ANGELES MEMORIAL	Pacific Bell
	LOS ANGELES MEMORIAL COLISEUM & SPORTS ARENA	Pacific Bell
	MAIN EVENT LA COLISEUM	Pacific Bell
	RADIO AMERICA	Pacific Bell
	SPORTS ARENA	Pacific Bell
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
	VOLUME SERVICE	Pacific Bell
	VOLUME SERVICE EMPLOYMENT	Pacific Bell
1986	ARENA SPORTS & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
	COLISEUM & SPORTS ARENA LOS ANGELES MEMORIAL	Pacific Bell
	FOSTERS FREEZE	Pacific Bell
	LOS ANGELES MEMORIAL COLISEUM & SPORTS ARENA	Pacific Bell
	MAIN EVENT-LA COLISEUM	Pacific Bell
	SPORTS ARENA	Pacific Bell
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
	VOLUME SERVICE	Pacific Bell
	VOLUME SERVICE EMPLOYMENT	Pacific Bell
1981	ARENA SPORTS & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	COLISEUM & ARENA LOS ANGELES LOS ANGELES	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	LOS ANGELES MEMORIAL COLISEUM & SPORTS ARENA	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	VOLUME SERVICE	Pacific Telephone
1976	Arena Offices	Pacific Telephone
	Coliseum Offices	Pacific Telephone
	Collseum Offices	Pacific Telephone
	Los Angeles Memorial Coliseum & Sports Arena	Pacific Telephone
	Ogden Food Service Corp	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIA	Pacific Telephone
1971	Arena	Pacific Telephone
	Coliseum	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL Official Ticket & Information Offices	Pacific Telephone
	Stadium Concessions Inc Of California	Pacific Telephone
1967	A B C STADIUM CONCESSIONS INC	Pacific Telephone
	ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	Coliseum	Pacific Telephone
	Coliseum Souvenir Shop	Pacific Telephone
	Official Ticket & Information Offices Coliseum	Pacific Telephone
1962	A B C STADIUM CONCESSION INC	Pacific Telephone
	Anderson Bros pavng contrs	Pacific Telephone
	Coliseum L A Memorial	Pacific Telephone
	Coliseum Souvenir Shop	Pacific Telephone
	L A Coliseum	Pacific Telephone
1960	DODGERS LOS ANGELES INC	Pacific Telephone
	LOS ANGELES DODGERS INC COLISEUM	Pacific Telephone
1958	Allied Maintenance Corp	Pacific Telephone
	Berlo Vending Co	Pacific Telephone
	Coliseum Souvenir Shop	Pacific Telephone
	Coliseum Ticket Ofc	Pacific Telephone
	DODGERS LOS ANGELES INC Coliseum Ticket Ofc	Pacific Telephone
	L A Coliseun	Pacific Telephone
	LOS ANGELES DODGERS INC	Pacific Telephone
	WEBB DEL E CONSTRUCTION CO	Pacific Telephone
1951	S Figroa L A Coliseum	Pacific Telephone & Telegraph Co.

FINDINGS

Year	Uses	Source
1942	LOS ANGELES COLISEUM Excposition Park Office	Los Angeles Directory Co.
1937	LOS ANGELES COLISEUM Expositlon Park Office	Los Angeles Directory Co.
1933	LOS ANGELES COLISEUM Exposition Park Office	Los Angeles Directory Co.
	Olympic Stadium Exposition Park	Los Angeles Directory Co.
1929	COLISEUM The Exposition Park Office	Los Angeles Directory Co.
	LOS ANGELES COLISEUM Exposition Park Office	Los Angeles Directory Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

39TH W

450 39TH W

Year	Uses	Source
2000	XXXX	Haines & Company

E 39TH ST

439 E 39TH ST

Year	Uses	Source
1967	Williams Elsie	Pacific Telephone

FIGUEROA S

3822 FIGUEROA S

Year	Uses	Source
2000	REEVES Larkin	Haines & Company

3832 FIGUEROA S

Year	Uses	Source
2000	XXXX	Haines & Company

3838 FIGUEROA S

Year	Uses	Source
2000	BALANDRAN Ignacio	Haines & Company
	FAJARDO Mayro	Haines & Company

3844 FIGUEROA S

Year	Uses	Source
2000	CAPITAN BURGER	Haines & Company
	PEUKERT Zemula	Haines & Company
	DREYVAN CO INC	Haines & Company

3850 FIGUEROA S

Year	Uses	Source
2000	PEUKERT Zemula	Haines & Company
	KENTUCKY FRIED CHKN	Haines & Company

FINDINGS

3854 FIGUEROA S

Year	*Uses*	*Source*
2000	XXXX	Haines & Company

3916 FIGUEROA S

Year	*Uses*	*Source*
2000	XXXX	Haines & Company

3930 FIGUEROA S

Year	*Uses*	*Source*
2000	XXXX	Haines & Company

3939 FIGUEROA S

Year	*Uses*	*Source*
2000	CLIPPERS BASKETBALL	Haines & Company
	COLISEUM & SPRTS OFCS	Haines & Company
	SPORTS ARENA	Haines & Company
	LA CLIPPERS BASKETBALL CLUB	Haines & Company
	LA CLIPPERS SLS OFC	Haines & Company
	LA CLIPPERS BSKTBL	Haines & Company

3944 FIGUEROA S

Year	*Uses*	*Source*
2000	QUAN Henry	Haines & Company

FIGUEROA ST S

3822 FIGUEROA ST S

Year	*Uses*	*Source*
1951	S Figroa Walton Paul J r	Pacific Telephone & Telegraph Co.

3824 FIGUEROA ST S

Year	*Uses*	*Source*
1951	S Figroa Niccoll Marie r	Pacific Telephone & Telegraph Co.

3830 FIGUEROA ST S

Year	*Uses*	*Source*
1951	S Figroa Thomas Zella Mrs r	Pacific Telephone & Telegraph Co.
	S Figroa Plasti Glaze Co Inc	Pacific Telephone & Telegraph Co.
	S Figroa Arnold Vera Plasti Glaze Co Inc	Pacific Telephone & Telegraph Co.

FINDINGS

3832 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Evers Eugene A r	Pacific Telephone & Telegraph Co.

3836 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Burneska Jessie Mrs r	Pacific Telephone & Telegraph Co.

3838 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Coury Rose r	Pacific Telephone & Telegraph Co.
	S Figroa Patt Geo r	Pacific Telephone & Telegraph Co.

3840 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Grossman Lawrence r	Pacific Telephone & Telegraph Co.
	S Figroa Smedberg Martin H r	Pacific Telephone & Telegraph Co.

3842 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Wahlberg Clarine r	Pacific Telephone & Telegraph Co.

3844 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Vans Liguor Store	Pacific Telephone & Telegraph Co.

3850 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Sno White Ice Cream Co	Pacific Telephone & Telegraph Co.

3900 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Swords Eddie Weatherly Swords Inc used cars	Pacific Telephone & Telegraph Co.
	S Figroa Weatherly Kirby Weatherly Swords Inc used cars	Pacific Telephone & Telegraph Co.
	S Figroa Weatherly Swords Inc used cars	Pacific Telephone & Telegraph Co.

3901 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa	Pacific Telephone & Telegraph Co.

FINDINGS

3915 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Los Angeles City of recreation & parks South Dist Ofc	Pacific Telephone & Telegraph Co.

3916 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Owings Hope H r	Pacific Telephone & Telegraph Co.
	S Figroa Wetmore Lea K r	Pacific Telephone & Telegraph Co.
	S Figroa Lavenberg Jacoba C r	Pacific Telephone & Telegraph Co.
	S Figroa Wormer Percy F chr sci pr	Pacific Telephone & Telegraph Co.

3918 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Baltuch Ben r	Pacific Telephone & Telegraph Co.
	S Figroa Wager Jess Mrs r	Pacific Telephone & Telegraph Co.

3930 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa OConnor F M r	Pacific Telephone & Telegraph Co.

3932 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Walters Chas r	Pacific Telephone & Telegraph Co.

3940 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Bethanis Aleck r	Pacific Telephone & Telegraph Co.
	S Figroa Tittley Gertrude Mrs r	Pacific Telephone & Telegraph Co.

3942 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Berray Louis F r	Pacific Telephone & Telegraph Co.
	S Figroa Hope Louise Mrs r	Pacific Telephone & Telegraph Co.

3944 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Grannis Lon R r	Pacific Telephone & Telegraph Co.
	S Figroa Gagnon Jos A r	Pacific Telephone & Telegraph Co.

FINDINGS

3946 FIGUEROA ST S

Year	Uses	Source
1951	S Figroa Woodcock Edwin J r	Pacific Telephone & Telegraph Co.
	S Figroa Sanford Sewell J r	Pacific Telephone & Telegraph Co.

S COLISEUM DR

574 S COLISEUM DR

Year	Uses	Source
1967	Hopkins Mary A	Pacific Telephone

S FIGUEROA

3822 S FIGUEROA

Year	Uses	Source
1967	Valenzuela Delfina	Pacific Telephone
	Angern Betty Jane	Pacific Telephone
1962	Angern Betty Jane	Pacific Telephone
	Hare R F	Pacific Telephone

3824 S FIGUEROA

Year	Uses	Source
1981	MILLER JIMMY & HELEN	Pacific Telephone
1967	Sommer Marian	Pacific Telephone
1962	Sommer Marian	Pacific Telephone

3830 S FIGUEROA

Year	Uses	Source
1967	Hodge Willoma	Pacific Telephone
	Matute Bertha	Pacific Telephone
1962	Glenns Auto Parks	Pacific Telephone

3832 S FIGUEROA

Year	Uses	Source
1986	ARROYO CARMEN	Pacific Bell
1962	Shinn Adelle Real Estate	Pacific Telephone

3836 S FIGUEROA

Year	Uses	Source
1990	BALANDRAN IGNACIO	Pacific Bell
1981	LEE FU KIAN	Pacific Telephone

FINDINGS

Year	Uses	Source
1967	Ramirez Sophie	Pacific Telephone
1962	Burneska Jessie Mrs	Pacific Telephone
	Cook Pansy M	Pacific Telephone

3838 S FIGUEROA

Year	Uses	Source
1986	SAJARDO HERMAN I	Pacific Bell
1967	McIntyre Marion	Pacific Telephone
	Paramo Alfonso	Pacific Telephone
1962	Patt Geo	Pacific Telephone
	Mc Intyre Marion	Pacific Telephone

3838 1/2 S FIGUEROA

Year	Uses	Source
1986	BALANDRAN IGNACIO E	Pacific Bell
1981	PARAMO ALFONSO	Pacific Telephone

3840 S FIGUEROA

Year	Uses	Source
1967	Smedberg Martin H	Pacific Telephone
	Sanchez Celeste	Pacific Telephone
1962	Smedberg Martin H	Pacific Telephone

3844 S FIGUEROA

Year	Uses	Source
1990	CAPITAN BURGER	Pacific Bell
	DREYVAN CO INC	Pacific Bell
1986	DREYVAN CO INC	Pacific Bell
	CAPITAN BURGER	Pacific Bell
1981	TAMIR INC	Pacific Telephone
1967	Coliseum Area	Pacific Telephone
1962	Arena Liquors	Pacific Telephone

3850 S FIGUEROA

Year	Uses	Source
1990	KENTUCKY FRIED CHICKEN HOLLYWOOD	Pacific Bell
1986	KENTUCKY FRIED CHICKEN	Pacific Bell
1981	KENTUCKY FRIED CHICKEN	Pacific Telephone
1967	Sno White Ice Cream Co	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	Sno White Ice Cream Co	Pacific Telephone

3900 S FIGUEROA

Year	Uses	Source
1967	Jim Sanders Chevron Service	Pacific Telephone

3916 S FIGUEROA

Year	Uses	Source
1981	RAMIREZ MARIBEL	Pacific Telephone
1967	Flores Pilar	Pacific Telephone
	Witsman Odes S	Pacific Telephone
1962	Wetmore Lea K	Pacific Telephone

3918 S FIGUEROA

Year	Uses	Source
1967	Winker Dorothea B	Pacific Telephone
1962	Villalpando Adolph Dr	Pacific Telephone
	Ramirez Sophie	Pacific Telephone

3918 1/2 S FIGUEROA

Year	Uses	Source
1986	GREEN A	Pacific Bell
1981	JOHNSON MICHAEL	Pacific Telephone

3930 S FIGUEROA

Year	Uses	Source
1990	ABM INVESTIGATIVE SERVICES INC	Pacific Bell
	A B M SECURITIES	Pacific Bell
	ABM SECURITY SERVICE	Pacific Bell
1986	ABM INVESTIGATIVE SERVICES INC	Pacific Bell
	A B M SECURITIES	Pacific Bell
	ABM SECURITY SERVICE	Pacific Bell
	URBAN EQUITIES LTD PRPRTY DVLPRS	Pacific Bell
1981	URBAN EQUITIES LTD PRPRTY DVLPRS	Pacific Telephone
1967	Arbogast Jones Wojciechowski Associates	Pacific Telephone
	Janke & Co	Pacific Telephone
	R F Communications Inc	Pacific Telephone
	Urban Equities Ltd property developers	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	Mc Kernan Enedina	Pacific Telephone
	Taylor Donna	Pacific Telephone

3932 S FIGUEROA

Year	Uses	Source
1962	Chinchilla Maria Astryd	Pacific Telephone

3939 S FIGUEROA

Year	Uses	Source
1990	CLIPPERS L A BASKETBALL CLUB INC	Pacific Bell
	COLISEUM & SPORTS ARENA LOS ANGELES MEMORIAL	Pacific Bell
	L A CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	LOS ANGELES CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	LOS ANGELES CLIPPERS SALES OFFICE	Pacific Bell
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
1986	CLIPPERS L A BASKETBALL CLUB INC	Pacific Bell
	L A CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	LOS ANGELES CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	LOS ANGELES CLIPPERS SALES OFFICE	Pacific Bell
1981	ARENA SPORTS & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	LOS ANGELES MEMORIAL COLISEUM & SPORTS ARENA	Pacific Telephone
	SPORTS ARENA	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
1967	A B C STADIUM CONCESSIONS INC	Pacific Telephone
	Official Ticket & Information Offices Arena	Pacific Telephone
	ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	Blades Hockey Club Los Angeles	Pacific Telephone
	Coliseum	Pacific Telephone
	Arena	Pacific Telephone
	Drake Mfg Co	Pacific Telephone
	Ice Capades Office Sports Arena	Pacific Telephone
	Lakers	Pacific Telephone
	LOS ANGELES BLADES HOCKEY CLUB	Pacific Telephone

Year	Uses	Source
1967	Los Angeles Hockey Club	Pacific Telephone
	Los Angeles Lakers basketball	Pacific Telephone
	L A Sports Arena	Pacific Telephone
	National Delegation Hostess Committee	Pacific Telephone
	Sports Arena L A	Pacific Telephone
1962	L A Hockey Club	Pacific Telephone
	Los Angeles Lakers basketball	Pacific Telephone
	L A Sports Arena	Pacific Telephone
	Mutual Crowood Control	Pacific Telephone
	National Delegation Hostess Committee	Pacific Telephone
	Olympia Building Maintenance Co	Pacific Telephone
	Sports Arena L A	Pacific Telephone
	A B C Stadium Concession Inc	Pacific Telephone
	L A BLADES HOCKEY CLUB	Pacific Telephone

3940 S FIGUEROA

Year	Uses	Source
1990	SARTE RICHARD B DPM	Pacific Bell
	BOB SIDNEY R DPM	Pacific Bell
	CHERNIAK EARL L DPM	Pacific Bell
	COLISEUM PODIATRY GROUP	Pacific Bell
1986	ACROSS THE STREET	Pacific Bell
1967	Martinez Antonia R	Pacific Telephone
1962	Dawson C E	Pacific Telephone
	Cox Marion T Dr	Pacific Telephone

3942 S FIGUEROA

Year	Uses	Source
1986	ACROSS THE STREET	Pacific Bell
	PARTNERS 84	Pacific Bell
1981	RIDER CLIFFORD G	Pacific Telephone
1967	Rider Clifford G	Pacific Telephone
	Horton Reah L	Pacific Telephone
	Rider Priscilla Lawrence	Pacific Telephone
1962	Rider Priscilla Lawrence	Pacific Telephone
	Rider Clifford G atty	Pacific Telephone
	Horton Reah L	Pacific Telephone

FINDINGS

3944 S FIGUEROA

Year	Uses	Source
1967	Edwards Bessie I	Pacific Telephone
1962	Edwards Bessie I	Pacific Telephone

3946 S FIGUEROA

Year	Uses	Source
1962	Moore Wm A	Pacific Telephone

S FIGUEROA ST

3822 S FIGUEROA ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc
1976	Angern Betty Jane	Pacific Telephone
	Aguila Maria	Pacific Telephone
1971	Angern Betty Jane	Pacific Telephone
1958	Johns Heinz O	Pacific Telephone
	Hare R F	Pacific Telephone
1942	Minkner Leo J Louisa H	Los Angeles Directory Co.
1937	Minkner Leo J Louisa J pntr	Los Angeles Directory Co.
	CROWDER Jos D	Los Angeles Directory Co.
1933	Minkner Leo Louisa slsmn	Los Angeles Directory Co.
1929	MORGAN Gene B Margt	Los Angeles Directory Co.
	MILLER Jas K clk	Los Angeles Directory Co.
	Dooley Jas J Vera carp	Los Angeles Directory Co.
1924	Griffin Jos C Crown Brass Mfg Co h	Los Angeles Directory Co.

3824 S FIGUEROA ST

Year	Uses	Source
2006	GALINDO Joel	Haines Company, Inc
1971	Carter Marjorie	Pacific Telephone
1958	Hernandez John	Pacific Telephone
	Maziaveckaite Angele	Pacific Telephone
1942	BACON Vinton W	Los Angeles Directory Co.
	GRIFFIN Violet Mrs labty asst Cal Institute of Medical Technology	Los Angeles Directory Co.
	Tyler Clifford R Mathews	Los Angeles Directory Co.
1937	Hart S P lab Harbor Dept	Los Angeles Directory Co.
	Griffin Jos C Bertha A brass fndry	Los Angeles Directory Co.
	Griffin Jos	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	Seiberz R J	Los Angeles Directory Co.
1933	GRIFFIN Jos C Bertha brass founder	Los Angeles Directory Co.
	Kirchen John G Peggy police	Los Angeles Directory Co.
1929	Mustoe Ralph pharm	Los Angeles Directory Co.
	Mustoe Clyde E Bell pharm A J Bruce	Los Angeles Directory Co.
	GRIFFIN Jos C Cath Crown Brass Mfg Co	Los Angeles Directory Co.
	GRIFFIN Anna B sten	Los Angeles Directory Co.
1924	Santee Benj C sec American Poultry Co h	Los Angeles Directory Co.
	Mustoe Clyde E pharm A J Bruce h	Los Angeles Directory Co.

3830 S FIGUEROA ST

Year	Uses	Source
2006	RAMIREZ Elida	Haines Company, Inc
1976	Ponce Sergio	Pacific Telephone
1971	Arroyo Julia	Pacific Telephone
1958	Trout Esther A	Pacific Telephone
1942	Patt Geo E Edith musician	Los Angeles Directory Co.
1937	BLACK Ethel F Mrs	Los Angeles Directory Co.
	Altschul Harry S Minnie	Los Angeles Directory Co.
1933	Altschul John L	Los Angeles Directory Co.
	Altschul Harry S Minnie	Los Angeles Directory Co.
1929	CARROLL Henry I Bessie florist	Los Angeles Directory Co.
	CARROLL Susan B clk	Los Angeles Directory Co.
	CARROLL Chas A	Los Angeles Directory Co.
	Altschul John lawyer	Los Angeles Directory Co.
	Altruther Harry Minnie	Los Angeles Directory Co.
1924	Leever Wayne h	Los Angeles Directory Co.
	Leever Fern J Mrs sec Dr C C Stephenson r	Los Angeles Directory Co.
	Altschul Harry S real est h	Los Angeles Directory Co.

3832 S FIGUEROA ST

Year	Uses	Source
2006	ARROYO Carmen	Haines Company, Inc
1976	Phillips Rose	Pacific Telephone
	Phillips Pat	Pacific Telephone
1971	Lettman Jos H	Pacific Telephone
1942	Albee Harriet Mrs	Los Angeles Directory Co.
1937	PATTERSON Ruth M clk	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	PATTERSON Matilda Mrs	Los Angeles Directory Co.
1933	Heatherington Emma C wid Geo	Los Angeles Directory Co.
	Heatherington C Ralph clk	Los Angeles Directory Co.
	Chatfield Alice E Mrs	Los Angeles Directory Co.
1929	HOFF Pauline nurse	Los Angeles Directory Co.
	Hoff Frank P instr Natl Automotive Sch	Los Angeles Directory Co.
	Hoff Evelyn tchr	Los Angeles Directory Co.
	Hoff Edw P Esther real est	Los Angeles Directory Co.

3836 S FIGUEROA ST

Year	Uses	Source
2006	BALANDRAN Ignacio	Haines Company, Inc
1971	Bayer Michael	Pacific Telephone
	Boomer John T	Pacific Telephone
1958	Burneska Jessie Mrs	Pacific Telephone
	Cook Pansy M	Pacific Telephone
1942	Conlon Geo L Erna L	Los Angeles Directory Co.
	Haag Walter	Los Angeles Directory Co.
	Worthen Louis A clk	Los Angeles Directory Co.
1937	BURTON Paul	Los Angeles Directory Co.
	CONLON Geo L slsmn Erna	Los Angeles Directory Co.
	Ditsworth Robt	Los Angeles Directory Co.
	WEST Helen W Mrs	Los Angeles Directory Co.
	WEST John	Los Angeles Directory Co.
1933	Cosgrove Max Susan	Los Angeles Directory Co.
1924	Cereghino Jos A supt American Can Co h	Los Angeles Directory Co.
	Pattison Geo W r	Los Angeles Directory Co.
	PATTISON R Ralph h	Los Angeles Directory Co.

3838 S FIGUEROA ST

Year	Uses	Source
2006	GALDAMEZMayra	Haines Company, Inc
1976	Mc Intyre Marion	Pacific Telephone
	Paramo Alfonso	Pacific Telephone
1971	Mc Intyre Marion	Pacific Telephone
	Paramo Alfonso	Pacific Telephone
1958	Patt Geo	Pacific Telephone
1942	Obiols Frank Theresa	Los Angeles Directory Co.
	Obilos John USA	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Russill Chas A Grace M Russill Plating Works	Los Angeles Directory Co.
	Russill Florence H adv mgr Thompson Mfg Co	Los Angeles Directory Co.
1937	Russill Florence H clk	Los Angeles Directory Co.
	Obiols Frank M Theresa	Los Angeles Directory Co.
	Obiols John B	Los Angeles Directory Co.
	Russell Chas A Grace asst L N Auger	Los Angeles Directory Co.
	RUSSELL Florence	Los Angeles Directory Co.
1933	HAMILTON John H Sallie credits Am Encaustic Tiling Co	Los Angeles Directory Co.
	Obiols Frank M slsmn W & J Sloane	Los Angeles Directory Co.
1929	HAMILTON Henrietta clk	Los Angeles Directory Co.
	HAMILTON John H Sallie	Los Angeles Directory Co.
1924	BURKE Jos C U S Attorney h	Los Angeles Directory Co.
	Dale Albt mech h	Los Angeles Directory Co.
	Mc ALISTER Jas A clk r	Los Angeles Directory Co.

3840 S FIGUEROA ST

Year	Uses	Source
1976	Fernandez Antonio	Pacific Telephone
	Smedberg Rose D	Pacific Telephone
1971	Nunez Pedro	Pacific Telephone
	Smedberg Martin H	Pacific Telephone
1958	Smedberg Martin H	Pacific Telephone
1942	Kess Harry D	Los Angeles Directory Co.
	Mc CLURE Etta Mrs	Los Angeles Directory Co.
1937	KIDDEN Wm R clk	Los Angeles Directory Co.
	Kidden Edna M Mrs	Los Angeles Directory Co.
	Kerr Harry D Ruth asst mgr Sam Fox Publishing Co	Los Angeles Directory Co.
1933	Glover Harry collr	Los Angeles Directory Co.
	Glover Jean W Mrs	Los Angeles Directory Co.
	KERR Harry D Ruth music composer	Los Angeles Directory Co.
1929	KERR Harry D Ruth E acct	Los Angeles Directory Co.
1924	h	Los Angeles Directory Co.

3842 S FIGUEROA ST

Year	Uses	Source
1976	Vargas Jesus	Pacific Telephone
1958	Chiu Thos A	Pacific Telephone

FINDINGS

Year	Uses	Source
1942	WASHBURN Eug J clk	Los Angeles Directory Co.
	WASHBURN Sophia W wid D W	Los Angeles Directory Co.
	Collard Cora Mrs	Los Angeles Directory Co.
	MARTIN Nettie A	Los Angeles Directory Co.
1937	Myre Evelyn M sten Broadway Dept Store	Los Angeles Directory Co.
	Myre Harvey P May L	Los Angeles Directory Co.
	WASHBURN Don D	Los Angeles Directory Co.
	WASHBURN Eug J	Los Angeles Directory Co.
	WASHBURN Sophia Mrs	Los Angeles Directory Co.
1933	DREIER Grace M Mrs prin Seventy Fourth St Sch	Los Angeles Directory Co.
	Hilton H Dale	Los Angeles Directory Co.
	HILTON Lew W Nora E	Los Angeles Directory Co.
	HOLMES Winifred sten	Los Angeles Directory Co.
	WASHBURN Sophia W wid D W	Los Angeles Directory Co.
1929	HAMMILL Jas H Hope lino opr	Los Angeles Directory Co.
1924	Draim Wm J slsmn Rucker Fuller Desk Co h	Los Angeles Directory Co.
	PAULEY Frank r	Los Angeles Directory Co.
	PAULEY Nettle Mrs slswmn r	Los Angeles Directory Co.
	PAULEY Robt r	Los Angeles Directory Co.
	Washburn Eugene bkpr r	Los Angeles Directory Co.
	WASHBURN Sonhia wid D W h	Los Angeles Directory Co.

3844 S FIGUEROA ST

Year	Uses	Source
2006	CAPITAN BURGER	Haines Company, Inc
	DREYVAN COINC	Haines Company, Inc
1971	Kentucky Roastheef	Pacific Telephone
	COLONEL SANDERS KENTUCKY FRIED CHICKEN	Pacific Telephone
	Take Home Restaurants Coliseum Area	Pacific Telephone
	Colonel Sanders Kentucky Roast Beef	Pacific Telephone
	KENTUCKY FRIED CHICKEN Take Home Restaurants	Pacific Telephone
	Coliseum Area	Pacific Telephone
1958	Arena Liquor	Pacific Telephone
1942	Altschul John L liquors	Los Angeles Directory Co.

FINDINGS

3846 S FIGUEROA ST

Year	Uses	Source
1937	Altschul John L used cars	Los Angeles Directory Co.

3850 S FIGUEROA ST

Year	Uses	Source
2006	KENTUCKY FRIED	Haines Company, Inc
1976	Civic Center	Pacific Telephone
1958	Sno White Ice Cream Co	Pacific Telephone

3882 S FIGUEROA ST

Year	Uses	Source
1942	PATTERSON Matilda Mrs	Los Angeles Directory Co.

3900 S FIGUEROA ST

Year	Uses	Source
1937	SCOTT John M used cars	Los Angeles Directory Co.
1933	HAMILTON Carroll S restr	Los Angeles Directory Co.

3905 S FIGUEROA ST

Year	Uses	Source
1933	Wich Stands Ltd restr	Los Angeles Directory Co.

3914 S FIGUEROA ST

Year	Uses	Source
1942	Ortega Alfonso L auto top mfr	Los Angeles Directory Co.
1937	BEAL D L restr	Los Angeles Directory Co.

3916 S FIGUEROA ST

Year	Uses	Source
1976	Witsman Odes S	Pacific Telephone
1971	Witsman Odes S	Pacific Telephone
	Flores Pilar	Pacific Telephone
1958	Wagar Jess Mrs	Pacific Telephone
	Wetmore Lea K	Pacific Telephone
1942	Vlaming Johanna Mrs clo clnr	Los Angeles Directory Co.
	FLEMMING Josephine Mrs	Los Angeles Directory Co.
	Lavenberg Robt Jacoba	Los Angeles Directory Co.
1937	FLEMING Johanna Mrs clo clnr	Los Angeles Directory Co.
	SMITH Thos Eleanor mech	Los Angeles Directory Co.
1933	HAMILTON Olive H Mrs	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1933	JACOBSON Sarah Mrs	Los Angeles Directory Co.
1929	Kidd Chester L Dolly slsmn	Los Angeles Directory Co.
	Kidd Hilda E sten	Los Angeles Directory Co.
1924	SCHUSTER Wm C h	Los Angeles Directory Co.
	Ruffner Edwd B clk r	Los Angeles Directory Co.
	Hall Sara D Mrs h	Los Angeles Directory Co.

3918 S FIGUEROA ST

Year	Uses	Source
1971	Buendia Francisca	Pacific Telephone
1958	Chamberlain Paul H	Pacific Telephone
	Barnes Stanley	Pacific Telephone
1942	WHITE Mabel L Mrs police	Los Angeles Directory Co.
	BURD May waiter	Los Angeles Directory Co.
	DORN John H Inez	Los Angeles Directory Co.
	MITCHELL Loraine L sergt LAPD	Los Angeles Directory Co.
1937	Galvez Lillie M Mrs	Los Angeles Directory Co.
	SIMPSON Melroy Ruth	Los Angeles Directory Co.
	SIMPSON Ruth E Mrs bkpr LAG & ECorp	Los Angeles Directory Co.
	Blakesley Hattie Mrs	Los Angeles Directory Co.
1924	MEARS Helen Mrs h	Los Angeles Directory Co.
	Finnley Benj r	Los Angeles Directory Co.
	Findley Benj F slsmn Simon Levi Co r	Los Angeles Directory Co.
	ARMSTRONG Jas S h	Los Angeles Directory Co.
	Armstrong Andw Mrs r	Los Angeles Directory Co.

3922 S FIGUEROA ST

Year	Uses	Source
1942	STEVENS Sylvia M	Los Angeles Directory Co.

3924 S FIGUEROA ST

Year	Uses	Source
1933	Boynton Hattie sten	Los Angeles Directory Co.

3930 S FIGUEROA ST

Year	Uses	Source
1991	ABM INVESTIGATIVE SERVICES INC	Pacific Bell
	ABM Investigative Services Inc	Pacific Bell
	ABMLock & Key Service 854077	Pacific Bell

FINDINGS

Year	Uses	Source
1985	ABM INVETIGATIVE SERVICE INC LOS ANGELES	Pacific Bell
1976	Arbogast Jones Theiss Associates	Pacific Telephone
	Urban Equities Ltd prporty dvlprs	Pacific Telephone
1971	Arbogast Jones Theiss Associates	Pacific Telephone
	Arbogast Jones Theiss Associates	Pacific Telephone
	Urban Equities Ltd	Pacific Telephone
	Urban Equities Ltd prprty dvlprs	Pacific Telephone
1942	KOCH Chester A Thresa clk	Los Angeles Directory Co.
	Wagar Jesse M Leonie millmn SPCo	Los Angeles Directory Co.
1937	Hatfield Ethel E nurse	Los Angeles Directory Co.
1933	Rader Isador Sadie uphol	Los Angeles Directory Co.
1929	Acosta Julia slsldy	Los Angeles Directory Co.
	Acosta Manuel Rosita translator	Los Angeles Directory Co.
1924	Howard Arthur P Howard & Smith h	Los Angeles Directory Co.
	OLIVER Cath r	Los Angeles Directory Co.
	OLIVER Robt W rep Pacific Mutual Life Ins Co r	Los Angeles Directory Co.

3932 S FIGUEROA ST

Year	Uses	Source
1942	DAVIS Edw M Cecil B	Los Angeles Directory Co.
	DAVIS Cecil B Mrs lawyer	Los Angeles Directory Co.
1937	THOMPSON Mary Mrs	Los Angeles Directory Co.
	DAVIS Edw M Cecil B editor Los Angeles Press Inc	Los Angeles Directory Co.
1933	THOMPSON Mary H Mrs	Los Angeles Directory Co.
	THOMPSON Arth C clk Ry M S	Los Angeles Directory Co.
1929	Mc Quillin Laura E music tchr	Los Angeles Directory Co.
	Dumrose Chas Thelma slsmn	Los Angeles Directory Co.
	CRANE Betty waiter	Los Angeles Directory Co.
1924	Shaw Wm h	Los Angeles Directory Co.
	BURNETT Milton clk r	Los Angeles Directory Co.
	BURNETT Earl W steno r	Los Angeles Directory Co.
	BURNETT Chas h	Los Angeles Directory Co.

3939 S FIGUEROA ST

Year	Uses	Source
2006	AFRICAN MARKET	Haines Company, Inc
	PLACE INC	Haines Company, Inc

FINDINGS

Year	Uses	Source
2006	COUSEUM LA	Haines Company, Inc
	MEMORIAL	Haines Company, Inc
	SPORTS ARENA	Haines Company, Inc
1976	Arena Offices	Pacific Telephone
	Coliseum Offices	Pacific Telephone
	Arena Offices	Pacific Telephone
	Ice Capades	Pacific Telephone
	Los Angeles Memorial Coliseum & Sports Arena	Pacific Telephone
	Arena Offices	Pacific Telephone
	Sports Arena	Pacific Telephone
	Arena Offices	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIA	Pacific Telephone
	Virginia Slims Tournament	Pacific Telephone
1971	Arena	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL Official Ticket & Information Offices	Pacific Telephone
	Sports Arena	Pacific Telephone
	Sports Arena	Pacific Telephone
	Coliseum	Pacific Telephone
	Arena	Pacific Telephone
1965	L A HOCKEY CLUB	Pacific Telephone
	L A BLADES HOCKEY CLUB	Pacific Telephone
	LAKERS	Pacific Telephone
1964	L A BLADES HOCKEY CLUB	Pacific Telephone
	LAKERS	Pacific Telephone
	L A HOCKEY CLUB	Pacific Telephone
1958	Dixon L E Co cosntr	Pacific Telephone
1929	Comstock Anita Mrs	Los Angeles Directory Co.

3940 S FIGUEROA ST

Year	Uses	Source
1976	Gamboa Jose Jr	Pacific Telephone
	Gamboa Rosa E	Pacific Telephone
1958	Seymour H R Sr	Pacific Telephone
1942	Delvon Genevieve sten	Los Angeles Directory Co.
	Vilven Genieve A sten Anchor Pkg Co	Los Angeles Directory Co.
	Yeazell Ralph W Helen D leatherwkr	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1937	BURKE Saml W	Los Angeles Directory Co.
	Sphor Evelyn Mrs	Los Angeles Directory Co.
1933	Bierman Jennie H Mrs	Los Angeles Directory Co.
	Kiley Margt Mrs	Los Angeles Directory Co.
1929	BOURN Molie slsldy	Los Angeles Directory Co.
	BOURN Thos J Irma slsmgr	Los Angeles Directory Co.
	James Andw R chauf	Los Angeles Directory Co.
	JAMES Bertram R Josephine chauf	Los Angeles Directory Co.
1924	Cudebec Isabel r	Los Angeles Directory Co.
	Cudebec Rena M h	Los Angeles Directory Co.
	Schroeder Amy C Mrs sec treas Am Credit Mens Assn r	Los Angeles Directory Co.
	h	Los Angeles Directory Co.

3942 S FIGUEROA ST

Year	Uses	Source
1976	Rider Clifford G	Pacific Telephone
1971	Rider Priscilla Lawrence	Pacific Telephone
	Rider Clifford G	Pacific Telephone
1958	Rider Clifford G atty	Pacific Telephone
	Rider Priscilla Lawrence	Pacific Telephone
	Horton Reah L	Pacific Telephone
1942	Lothian J Wm Alice M	Los Angeles Directory Co.
1937	HANSEN Hans C Mary	Los Angeles Directory Co.
	Alford Rose	Los Angeles Directory Co.
1933	Muir Steven L wrapper	Los Angeles Directory Co.
	Muir Leo J Ethie M pres Church of Jesus Christ of Latter Day Sants Los Angeles Stake	Los Angeles Directory Co.
	HANSEN Hans C Mary	Los Angeles Directory Co.
1929	Muir Leo J Effie tailor	Los Angeles Directory Co.
	HANSEN Hans C Mary	Los Angeles Directory Co.
1924	FOSTER D h	Los Angeles Directory Co.
	BERNSTEIN Lionel E mgr West Coast Sales Co h	Los Angeles Directory Co.

3944 S FIGUEROA ST

Year	Uses	Source
1971	Martinez Ramona S	Pacific Telephone
	Petrie G	Pacific Telephone
1958	Edwards Bessie l	Pacific Telephone

FINDINGS

Year	Uses	Source
1942	Franke Hattie wid C A	Los Angeles Directory Co.
	JAMIESON Jas H tool mkr	Los Angeles Directory Co.
	SEELY Mary L librn DML	Los Angeles Directory Co.
1937	PERRY Frank bartndr	Los Angeles Directory Co.
	Franke Herman H Nellie M	Los Angeles Directory Co.
	PERRY Mickey	Los Angeles Directory Co.
1933	DOUGHERTY Jas W clk	Los Angeles Directory Co.
1929	HENDERSON Ira T Gertrude dept mgr L A Crmry Co	Los Angeles Directory Co.
	HARRIS Louis P Eva slsmn	Los Angeles Directory Co.
1924	SMITH Edwin F Mrs r	Los Angeles Directory Co.
	SMITH Halsey G slsmn h	Los Angeles Directory Co.
	Grover K h	Los Angeles Directory Co.

3945 S FIGUEROA ST

Year	Uses	Source
1924	SMITH L U clk r	Los Angeles Directory Co.

3946 S FIGUEROA ST

Year	Uses	Source
1942	FRANCO Dolores	Los Angeles Directory Co.
	Peters Harry B	Los Angeles Directory Co.
	Woodcock Edwin J Rosario	Los Angeles Directory Co.
1937	Bravos John J Edith E buyer Broadway Florist	Los Angeles Directory Co.
	PETERS Harry D Alma slsmn	Los Angeles Directory Co.
1933	PETERS Harry B Alma	Los Angeles Directory Co.
	Huff Geo M Marg M pres G M Huff Lbr Co	Los Angeles Directory Co.
	Huff Margt M Mrs sec C M Huff lbr Co	Los Angeles Directory Co.
1929	Neary Bert A Mildred B slsmn	Los Angeles Directory Co.
	PETERS Harry B Alma dispr	Los Angeles Directory Co.
1924	NELSON Geo Frans Nelson & Sons r	Los Angeles Directory Co.
	Berninger Alma h	Los Angeles Directory Co.
	Berninger Herman photo engrav Brown Caldwell & Ladd h	Los Angeles Directory Co.
	Berninger Virginia D clk r	Los Angeles Directory Co.

FINDINGS

South Figueroa Street

3939 South Figueroa Street

Year	*Uses*	*Source*
2006	AFRICAN MARKET	Haines Company, Inc
	PLACE INC	Haines Company, Inc
	COUSEUM LA	Haines Company, Inc
	MEMORIAL	Haines Company, Inc
	SPORTS ARENA	Haines Company, Inc
2000	COLISEUM & SPRTS OFCS	Haines & Company
	CLIPPERS BASKETBALL	Haines & Company
	LA CLIPPERS BSKTBL	Haines & Company
	LA CLIPPERS BASKETBALL CLUB	Haines & Company
	LA CLIPPERS SLS OFC	Haines & Company
	SPORTS ARENA	Haines & Company
1990	LOS ANGELES CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	CLIPPERS L A BASKETBALL CLUB INC	Pacific Bell
	COLISEUM & SPORTS ARENA LOS ANGELES MEMORIAL	Pacific Bell
	LOS ANGELES CLIPPERS SALES OFFICE	Pacific Bell
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Bell
	L A CLIPPERS BASKETBALL CLUB INC	Pacific Bell
1986	LOS ANGELES CLIPPERS BASKETBALL CLUB INC	Pacific Bell
	LOS ANGELES CLIPPERS SALES OFFICE	Pacific Bell
	CLIPPERS L A BASKETBALL CLUB INC	Pacific Bell
	L A CLIPPERS BASKETBALL CLUB INC	Pacific Bell
1981	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	ARENA SPORTS & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	LOS ANGELES MEMORIAL COLISEUM & SPORTS ARENA	Pacific Telephone
	SPORTS ARENA	Pacific Telephone
1976	Arena Offices	Pacific Telephone
	Coliseum Offices	Pacific Telephone
	Arena Offices	Pacific Telephone
	Los Angeles Memorial Coliseum & Sports Arena	Pacific Telephone

FINDINGS

Year	Uses	Source
1976	Arena Offices	Pacific Telephone
	Virginia Slims Tournament	Pacific Telephone
	Ice Capades	Pacific Telephone
	Sports Arena	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIA	Pacific Telephone
	Arena Offices	Pacific Telephone
1971	Arena	Pacific Telephone
	Coliseum	Pacific Telephone
	Sports Arena	Pacific Telephone
	Sports Arena	Pacific Telephone
	SPORTS ARENA & COLISEUM LOS ANGELES MEMORIAL Official Ticket & Information Offices	Pacific Telephone
	Arena	Pacific Telephone
1967	Coliseum	Pacific Telephone
	Arena	Pacific Telephone
	Drake Mfg Co	Pacific Telephone
	Lakers	Pacific Telephone
	A B C STADIUM CONCESSIONS INC	Pacific Telephone
	National Delegation Hostess Committee	Pacific Telephone
	Sports Arena L A	Pacific Telephone
	Blades Hockey Club Los Angeles	Pacific Telephone
	Los Angeles Lakers basketball	Pacific Telephone
	Los Angeles Hockey Club	Pacific Telephone
	LOS ANGELES BLADES HOCKEY CLUB	Pacific Telephone
	L A Sports Arena	Pacific Telephone
	ARENA & COLISEUM LOS ANGELES MEMORIAL	Pacific Telephone
	Official Ticket & Information Offices Arena	Pacific Telephone
	Ice Capades Office Sports Arena	Pacific Telephone
1965	LAKERS	Pacific Telephone
	L A HOCKEY CLUB	Pacific Telephone
	L A BLADES HOCKEY CLUB	Pacific Telephone
1964	L A BLADES HOCKEY CLUB	Pacific Telephone
	L A HOCKEY CLUB	Pacific Telephone
	LAKERS	Pacific Telephone
1962	L A BLADES HOCKEY CLUB	Pacific Telephone
	L A Sports Arena	Pacific Telephone
	L A Hockey Club	Pacific Telephone

Year	Uses	Source
1962	National Delegation Hostess Committee	Pacific Telephone
	Mutual Crowood Control	Pacific Telephone
	Los Angeles Lakers basketball	Pacific Telephone
	Olympia Building Maintenance Co	Pacific Telephone
	A B C Stadium Concession Inc	Pacific Telephone
	Sports Arena L A	Pacific Telephone
1958	Dixon L E Co cosntr	Pacific Telephone
1929	Comstock Anita Mrs	Los Angeles Directory Co.

W 39TH

435 W 39TH

Year	Uses	Source
1929	SMITH Maggie J r	Los Angeles Directory Co.

440 W 39TH

Year	Uses	Source
1924	DARBY Rowland S teller h	Los Angeles Directory Co.

445 W 39TH

Year	Uses	Source
1924	CRANE John W slsmn Don Shortz h	Los Angeles Directory Co.

450 W 39TH

Year	Uses	Source
1990	STADIUM MOTOR HOTEL	Pacific Bell
1986	STADIUM MOTOR HOTEL	Pacific Bell
1981	STADIUM MOTOR HOTEL	Pacific Telephone
1971	Stadium Motor Hotel	Pacific Telephone
1962	Stadium Motor Hotel	Pacific Telephone
	Kirby Ralph F Stadium Motor Hotel	Pacific Telephone
	Kirby Angela G Stadium Motor Hotel	Pacific Telephone
1937	ROSE Clyde Pauline wtchmn	Los Angeles Directory Co.

457 W 39TH

Year	Uses	Source
1933	Martin R Leslie Hattie clk	Los Angeles Directory Co.

465 W 39TH

Year	Uses	Source
1924	IVERSON Thelma A r	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1924	IVERSON W Allen chemist r	Los Angeles Directory Co.
	IVERSON Wm h	Los Angeles Directory Co.

465 1/2 W 39TH

Year	Uses	Source
1929	READ H M R	Los Angeles Directory Co.

466 W 39TH

Year	Uses	Source
1962	Dusseau Eldred	Pacific Telephone

478 W 39TH

Year	Uses	Source
1929	JOHNSON LEWIS W DR R	Los Angeles Directory Co.
1924	JOHNSTON Ethelyn L wid N B Johnston Dept Store r	Los Angeles Directory Co.
	JOHNSON N B Mrs h	Los Angeles Directory Co.

480 W 39TH

Year	Uses	Source
1924	Oeser Rudolph Heut U S N h	Los Angeles Directory Co.

482 W 39TH

Year	Uses	Source
1929	DRUHMALLE EVELYN R	Los Angeles Directory Co.
1924	WORDEN Frank L lieut U S N h	Los Angeles Directory Co.

483 W 39TH

Year	Uses	Source
1924	Goldworthy Blanche Mrs h	Los Angeles Directory Co.

W 39TH PL

430 W 39TH PL

Year	Uses	Source
1933	PETERSON Wm H	Los Angeles Directory Co.
	PETERSON Jas B tchr	Los Angeles Directory Co.

454 W 39TH PL

Year	Uses	Source
1933	WHEELER Mary P wid Henry	Los Angeles Directory Co.

FINDINGS

W 39TH ST

14 W 39TH ST

Year	Uses	Source
2006	ARTIGA Ana Luz	Haines Company, Inc
	AVENDANO Luis	Haines Company, Inc
	BENrr EZ Selvin	Haines Company, Inc
	ENRIQUEZ Emesto A	Haines Company, Inc
	MALAGON Luis	Haines Company, Inc
	ESPEJO Crystal	Haines Company, Inc
	GALVAN Jose L	Haines Company, Inc
	GIJON Elizabeth	Haines Company, Inc
	ESCOBAR Rodolfo	Haines Company, Inc

440 W 39TH ST

Year	Uses	Source
1929	BARTON LILORE K R	Los Angeles Directory Co.

450 W 39TH ST

Year	Uses	Source
1976	Defontorum Julian	Pacific Telephone
	Stadium Motor Hotel	Pacific Telephone
1967	Stadium Motor Hotel	Pacific Telephone
	Kirby Ralph F Stadium Motor Hotel	Pacific Telephone
	Kirby R F	Pacific Telephone
	Kirby Angela G Stadium Motor Hotel	Pacific Telephone
1958	Stadium Motor Hotel	Pacific Telephone
	Kirby R F	Pacific Telephone
	Johnson A O Stadium Motor Hotel	Pacific Telephone

471 W 39TH ST

Year	Uses	Source
1929	MIKALSEN B R	Los Angeles Directory Co.

475 W 39TH ST

Year	Uses	Source
1929	IVERSON WA R	Los Angeles Directory Co.

478 W 39TH ST

Year	Uses	Source
1935	DAVID BERTRAM MRS R	Los Angeles Directory Co.

FINDINGS

480 W 39TH ST

Year	*Uses*	*Source*
1935	KITTEL A F R	Los Angeles Directory Co.

482 W 39TH ST

Year	*Uses*	*Source*
1935	SIMONSON RALPH R	Los Angeles Directory Co.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
3911 South Figueroa Street	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
14 W 39TH ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3820 South Vermont Avenue	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3822 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3822 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3822 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3822 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3824 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3824 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3824 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3830 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3830 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3830 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3832 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3832 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3832 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3832 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3836 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3836 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3836 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3836 South Vermont Avenue	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3838 1/2 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3838 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3838 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3838 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3838 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3840 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3840 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3840 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3842 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
3842 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3844 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3844 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3844 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3844 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3846 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3850 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3850 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3850 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3850 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3854 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
3882 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3900 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3900 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3900 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3901 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3905 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3910 South Vermont Avenue	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3912 South Vermont Avenue	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3914 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3915 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3916 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
3916 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3916 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3916 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3918 1/2 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3918 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3918 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3918 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3922 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3924 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3930 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3930 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
3930 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3930 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3932 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3932 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3932 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3939 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3939 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3939 S FIGUEROA ST	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3939 South Figueroa Street	2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3940 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3940 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3940 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3942 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3942 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3942 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3944 FIGUEROA S	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3944 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3944 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3944 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3945 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
3946 FIGUEROA ST S	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
3946 S FIGUEROA	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
3946 S FIGUEROA ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
430 W 39TH PL	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
435 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
439 E 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
440 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
440 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
445 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
450 39TH W	2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
450 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
450 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
454 W 39TH PL	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
457 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
465 1/2 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
465 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
466 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
471 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
475 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
478 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
478 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
480 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
480 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
482 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
482 W 39TH ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
483 W 39TH	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
574 S COLISEUM DR	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
729 West Santa Barbara Avenue	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
921 West 39th Street	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
926 West 39th Street	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
928 West 39th Street	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

EDR-Radius
Map Report

Appendix F

Copyright 2012 CONVERSE CONSULTANTS

USC/LA Memorial Coliseum
3911 South Figueroa Street
Los Angeles, CA 90037

Inquiry Number: 3223843.2s
December 13, 2011

The EDR Radius Map™ Report with GeoCheck®

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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3911 SOUTH FIGUEROA STREET
LOS ANGELES, CA 90037

COORDINATES

Latitude (North):	34.013700 - 34° 0' 49.3''
Longitude (West):	118.287600 - 118° 17' 15.4''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	381105.6
UTM Y (Meters):	3764228.0
Elevation:	162 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-A3 HOLLYWOOD, CA
Most Recent Revision:	1994
South Map:	33118-H3 INGLEWOOD, CA
Most Recent Revision:	1981

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2009, 2010
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
LA EXPOSITION PARK 3911 S FIGUERO ST LOS ANGELES, CA 90037	RCRA-SQG FINDS	CAD981987688
CITY OF L A GENERAL SERVICES 3911 S FIGUERO ST LOS ANGELES, CA 90037	HAZNET	N/A
LOS ANGELES MEMORIAL COLISEUM 3911 S FIGUEROA ST LOS ANGELES, CA 90037	FTTS HIST FTTS FINDS	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

EXECUTIVE SUMMARY

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
WMUDS/SWAT ---------- Waste Management Unit Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---------- Clandestine Drug Labs
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
AOCONCERN ---------- San Gabriel Valley Areas of Concern
CDL ---------- Clandestine Drug Labs
US HIST CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---------- CERCLA Lien Information
LUCIS ---------- Land Use Control Information System
LIENS ---------- Environmental Liens Listing
DEED ---------- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System

CHMIRS California Hazardous Material Incident Report System
LDS Land Disposal Sites Listing
MCS Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen RCRA - Non Generators
DOT OPS Incident and Accident Data
DOD Department of Defense Sites
FUDS Formerly Used Defense Sites
CONSENT Superfund (CERCLA) Consent Decrees
ROD Records Of Decision
UMTRA Uranium Mill Tailings Sites
MINES Mines Master Index File
TRIS Toxic Chemical Release Inventory System
TSCA Toxic Substances Control Act
SSTS Section 7 Tracking Systems
ICIS Integrated Compliance Information System
PADS PCB Activity Database System
MLTS Material Licensing Tracking System
RADINFO Radiation Information Database
RAATS RCRA Administrative Action Tracking System
CA BOND EXP. PLAN Bond Expenditure Plan
WDS Waste Discharge System
NPDES NPDES Permits Listing
Cortese "Cortese" Hazardous Waste & Substances Sites List
Notify 65 Proposition 65 Records
LA Co. Site Mitigation Site Mitigation List
DRYCLEANERS Cleaner Facilities
WIP Well Investigation Program Case List
LOS ANGELES CO. HMS HMS: Street Number List
ENF Enforcement Action Listing
EMI Emissions Inventory Data
INDIAN RESERV Indian Reservations
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
FINANCIAL ASSURANCE Financial Assurance Information Listing
HWP EnviroStor Permitted Facilities Listing
PCB TRANSFORMER PCB Transformer Registration Database
PROC Certified Processors Database
MWMP Medical Waste Management Program Listing
COAL ASH DOE Sleam-Electric Plan Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
HWT Registered Hazardous Waste Transporter Database

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/15/2011 has revealed that there are 3 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON 207669	***4000 S FIGUEROA BLVD***	***S 0 - 1/8 (0.007 mi.)***	***E16***	***16***
NATURAL HISTORY MUSEUM LA CO	***900 EXPOSITION BLVD***	***N 0 - 1/8 (0.076 mi.)***	***J33***	***25***
ALEXANDER SCIENCE CENTER ELEM	3737 S FIGUEROA ST	NE 1/8 - 1/4 (0.195 mi.)	S85	72

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/15/2011 has revealed that there are 7 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARMORY BLDG	***700 STATE DR***	***N 0 - 1/8 (0.093 mi.)***	***L45***	***42***
LAUSD--MANUAL ARTS NEW ES #1	700 STATE DR.	N 0 - 1/8 (0.093 mi.)	L47	44
SHELL SERVICE STATION	***1010 W MARTIN LUTHER KI***	***S 1/8 - 1/4 (0.173 mi.)***	***P70***	***56***
CHEVRON STATION 97757	***4004 S VERMONT***	***WSW 1/8 - 1/4 (0.192 mi.)***	***P78***	***62***
STOLEN BASE CLEANERS	***1015 W MARTIN LUTHER KI***	***SSW 1/8 - 1/4 (0.193 mi.)***	***R81***	***68***
GUILD PRINTING COMP INC	***3801 S GRAND AVE***	***ENE 1/8 - 1/4 (0.222 mi.)***	***V99***	***78***
RAINBOW GRAPHICS	***386 W 38TH ST***	***ENE 1/8 - 1/4 (0.231 mi.)***	***V106***	***83***

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/07/2011 has revealed that there are 8 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CALIFORNIA FASHION INDUSTRIES Status: Certified	***MARTIN LUTHER KING BLVD***	***E 1/4 - 1/2 (0.499 mi.)***	***123***	***99***
ALPHA POLISHING Status: Active	951 W. VERNON AVENUE	S 1/2 - 1 (0.516 mi.)	AB124	103
GENERAL PLATING COMPANY Status: Refer: Other Agency	***951 W VERNON AVE***	***S 1/2 - 1 (0.516 mi.)***	***AB125***	***106***
MANUAL ARTS NEW ELEMENTARY SCH Status: No Further Action	***JEFFERSON BOULEVARD/SOU***	***NW 1/2 - 1 (0.599 mi.)***	***126***	***111***
JEFFERSON NEW PRIMARY CENTER N Status: Inactive - Action Required Status: No Further Action	***MAPLE AVENUE/36TH STREE***	***E 1/2 - 1 (0.688 mi.)***	***129***	***119***
HERMETIC ASSOCIATED Status: Refer: Other Agency	150 EAST JEFFERSON BOUL	ENE 1/2 - 1 (0.723 mi.)	130	124

Lower Elevation	Address	Direction / Distance	Map ID	Page
BARTON-JONES CHEMICAL CO. Status: No Further Action	1207 W. VERNON AVE	SW 1/2 - 1 (0.672 mi.)	127	114
MANUAL ARTS NEW PRIMARY CENTER Status: No Further Action	***46TH STREET/SOUTH VERMO***	***SSW 1/2 - 1 (0.674 mi.)***	***128***	***115***

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 11/10/2011 has revealed that there are 10 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO #3000 Status: Completed - Case Closed	***504 MARTIN LUTHER KING***	***S 0 - 1/8 (0.002 mi.)***	***9***	***12***

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO FACILITY NO. 108 Status: Completed - Case Closed	3775 VERMONT AVENUE	N 0 - 1/8 (0.078 mi.)	G39	36
CHEVRON STATION 97757 Status: Completed - Case Closed	***4004 S VERMONT***	***WSW 1/8 - 1/4 (0.192 mi.)***	***P78***	***62***
STOLEN BASE CLEANERS Status: Completed - Case Closed	***1015 W MARTIN LUTHER KI***	***SSW 1/8 - 1/4 (0.193 mi.)***	***R81***	***68***
UNOCAL #1868 Status: Completed - Case Closed	***4200 FIGUEROA ST***	***S 1/4 - 1/2 (0.262 mi.)***	***W115***	***87***
LEE & SONS (HAULING) Status: Open - Site Assessment	4175 S BROADWAY AVE	SE 1/4 - 1/2 (0.355 mi.)	117	90
NIK CONSTRUCTION CO. Status: Open - Site Assessment	4251-4261 S VERMONT AVE	SSW 1/4 - 1/2 (0.378 mi.)	118	91
UNNAMED SITE	***VERMONT AVE***	***N 1/4 - 1/2 (0.401 mi.)***	***119***	***92***
LA CITY FIRE STATION #46 Status: Completed - Case Closed	4370 HOOVER ST S	S 1/4 - 1/2 (0.486 mi.)	122	97

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOBIL #11-LVC (FORMER) Status: Completed - Case Closed	***1355 MARTIN LUTHER KING***	***WSW 1/4 - 1/2 (0.460 mi.)***	***AA120***	***93***

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 11/10/2011 has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STOLEN BASE CLEANERS	***1015 W MARTIN LUTHER KI***	***SSW 1/8 - 1/4 (0.193 mi.)***	***R81***	***68***
STOLEN BASE CLEANERS Facility Status: Completed - Case Closed	1015 MARTIN LUTHER KING	SSW 1/8 - 1/4 (0.194 mi.)	R84	72

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 09/19/2011 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SS# 20-7494	4000 S FIGUEROA ST	S 0 - 1/8 (0.007 mi.)	E15	15
YANG'S SHELL	1010 W MARTIN LUTHER KI	S 1/8 - 1/4 (0.173 mi.)	P66	54
LOKER HYDROCARBON RESEARCHINS	837 W 37TH ST	NE 1/8 - 1/4 (0.232 mi.)	Z108	85

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 09/08/2011 has revealed that there are 3 SWRCY sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EXPO CENTER	1031 W MARTIN LUTHER KI	SSW 1/8 - 1/4 (0.196 mi.)	R88	74
PENNY RECYCLING #2	4157 S FIGUEROA ST	S 1/8 - 1/4 (0.225 mi.)	W100	81
OSCAR RECYCLING CENTER	3928 S BROADWAY	E 1/4 - 1/2 (0.252 mi.)	114	87

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 18 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ATLANTIC RICHFIELD CO., SOHNS	***504 W MARTIN LUTHER KIN***	***S 0 - 1/8 (0.003 mi.)***	***E12***	***14***
UHEL DEAN & STANLEY SOLES	***3929 S VERMONT AVE***	***W 0 - 1/8 (0.007 mi.)***	***B17***	***19***
ARCO	3777 S VERMONT AVE	N 0 - 1/8 (0.069 mi.)	G30	24
COUNTY OF LOS ANGELES ISD	***900 EXPOSITION BLVD***	***N 0 - 1/8 (0.076 mi.)***	***J34***	***31***
ARCO SS# 108	***3775 S VERMONT AVE***	***N 0 - 1/8 (0.078 mi.)***	***G40***	***37***
CALIFORNIA SCIENCE CENTER	***700 STATE DR***	***N 0 - 1/8 (0.093 mi.)***	***L49***	***45***
SERVICE STATION 2059	***3771 S VERMONT AVE***	***N 0 - 1/8 (0.095 mi.)***	***G52***	***47***
UNION 76	***3820 S FIGUEROA ST***	***N 0 - 1/8 (0.103 mi.)***	***54***	***49***
MORY FAMILY TRUST	***4088 S FIGUEROA ST***	***S 0 - 1/8 (0.114 mi.)***	***55***	***50***
AL SAL OIL CO. INC	***3996 S VERMONT AVE***	***S 1/8 - 1/4 (0.178 mi.)***	***P73***	***58***
YANG'S SHELL	1010 MARTIN LUTHER KING	SSW 1/8 - 1/4 (0.180 mi.)	P75	61
SMITTY'S AUTO STATION	***931 W MARTIN LUTHER KIN***	***WSW 1/8 - 1/4 (0.186 mi.)***	***P77***	***62***
SAL PATRON CHEVRON	***4004 S VERMONT AVE***	***WSW 1/8 - 1/4 (0.192 mi.)***	***P79***	***66***
UNIVERSITY OF SO CALIFORNIA	***3730 MC CLINTOCK AVE***	***N 1/8 - 1/4 (0.208 mi.)***	***U94***	***75***
UNIVERSITY OF SO CALIFORNIA	***701 EXPOSITION BLVD***	***N 1/8 - 1/4 (0.216 mi.)***	***97***	***77***
AMOS YU	***1100 W MARTIN LUTHER KI***	***SW 1/8 - 1/4 (0.229 mi.)***	***Y102***	***81***
UNIVERSITY OF SO CALIFORNIA	***3737 WATT WAY***	***NNE 1/8 - 1/4 (0.230 mi.)***	***105***	***82***
UNIVERSITY OF SO CALIFORNIA	***3650 S MC CLINTOCK AVE***	***N 1/8 - 1/4 (0.240 mi.)***	***U112***	***86***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 9 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MUSEUM OF NATURAL HISTORY	***900 EXPOSITION BLVD***	***N 0 - 1/8 (0.076 mi.)***	***J35***	***33***
C N GRADY	3775 S VERMONT AVE	N 0 - 1/8 (0.078 mi.)	G37	34
BONG MO JUNG	504 W SANTA BARBARA AVE	E 0 - 1/8 (0.081 mi.)	41	40

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CALIFORNIA MUSEUM OF SCIENCE &	700 STATE DR	N 0 - 1/8 (0.093 mi.)	L46	43
UNIN OIL SERVICE STATION 2059	3771 S VERMONT AVE	N 0 - 1/8 (0.095 mi.)	G51	46
SERVICE STATION 2059	***3771 S VERMONT AVE***	***N 0 - 1/8 (0.095 mi.)***	***G52***	***47***
C & K SELF SERVICE INC #1	1010 WEST MARTIN LUTHER	S 1/8 - 1/4 (0.173 mi.)	P68	54
KWIK #19	3996 S VERMONT AVE	S 1/8 - 1/4 (0.178 mi.)	P74	60
97757	4004 S VERMONT AVE	WSW 1/8 - 1/4 (0.192 mi.)	P80	67

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 18 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ATLANTIC RICHFIELD CO., SOHNS	***504 W MARTIN LUTHER KIN***	***S 0 - 1/8 (0.003 mi.)***	***E12***	***14***
UHEL DEAN & STANLEY SOLES	***3929 S VERMONT AVE***	***W 0 - 1/8 (0.007 mi.)***	***B17***	***19***
COUNTY OF LOS ANGELES ISD	***900 EXPOSITION BLVD***	***N 0 - 1/8 (0.076 mi.)***	***J34***	***31***
ARCO SS# 108	***3775 S VERMONT AVE***	***N 0 - 1/8 (0.078 mi.)***	***G40***	***37***
CALIFORNIA MUSEUM OF SCIENCE	700 STATE ST	N 0 - 1/8 (0.093 mi.)	L48	45
SERVICE STATION 2059	***3771 S VERMONT AVE***	***N 0 - 1/8 (0.095 mi.)***	***G52***	***47***
UNION 76	***3820 S FIGUEROA ST***	***N 0 - 1/8 (0.103 mi.)***	***54***	***49***
MORY FAMILY TRUST	***4088 S FIGUEROA ST***	***S 0 - 1/8 (0.114 mi.)***	***55***	***50***
YANG'S SHELL	1010 W MARTIN LUTHER KI	S 1/8 - 1/4 (0.173 mi.)	P69	55
AL SAL OIL CO. INC	***3996 S VERMONT AVE***	***S 1/8 - 1/4 (0.178 mi.)***	***P73***	***58***
SMITTY'S AUTO STATION	***931 W MARTIN LUTHER KIN***	***WSW 1/8 - 1/4 (0.186 mi.)***	***P77***	***62***
SAL PATRON CHEVRON	***4004 S VERMONT AVE***	***WSW 1/8 - 1/4 (0.192 mi.)***	***P79***	***66***
UNIVERSITY OF SO CALIFORNIA	***3730 MC CLINTOCK AVE***	***N 1/8 - 1/4 (0.208 mi.)***	***U94***	***75***
UNIVERSITY OF SO CALIFORNIA	***701 EXPOSITION BLVD***	***N 1/8 - 1/4 (0.216 mi.)***	***97***	***77***
AMOS YU	***1100 W MARTIN LUTHER KI***	***SW 1/8 - 1/4 (0.229 mi.)***	***Y102***	***81***
UNIVERSITY OF SO CALIFORNIA	***3737 WATT WAY***	***NNE 1/8 - 1/4 (0.230 mi.)***	***105***	***82***
LOKER HYDROCARBON RESEARCH INS	837 W 37TH ST	NE 1/8 - 1/4 (0.232 mi.)	Z109	85
UNIVERSITY OF SO CALIFORNIA	***3650 S MC CLINTOCK AVE***	***N 1/8 - 1/4 (0.240 mi.)***	***U112***	***86***

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 7 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO #3000	***504 MARTIN LUTHER KING***	***S 0 - 1/8 (0.002 mi.)***	***9***	***12***
CHEVRON STATION 97757	***4004 S VERMONT***	***WSW 1/8 - 1/4 (0.192 mi.)***	***P78***	***62***
STOLEN BASE CLEANERS	***1015 W MARTIN LUTHER KI***	***SSW 1/8 - 1/4 (0.193 mi.)***	***R81***	***68***
UNOCAL #1868	***4200 FIGUEROA ST***	***S 1/4 - 1/2 (0.262 mi.)***	***W115***	***87***
SPYGLASS GOLF MAINTENANCE	FIGUEROA ST	NE 1/4 - 1/2 (0.275 mi.)	116	90
UNNAMED SITE	***VERMONT AVE***	***N 1/4 - 1/2 (0.401 mi.)***	***119***	***92***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOBIL #11-LVC (FORMER)	***1355 MARTIN LUTHER KING***	***WSW 1/4 - 1/2 (0.472 mi.)***	***AA121***	***96***

EXECUTIVE SUMMARY

EDR PROPRIETARY RECORDS

EDR Proprietary Records

EDR Historical Auto Stations: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

A review of the EDR Historical Auto Stations list, as provided by EDR, has revealed that there are 30 EDR Historical Auto Stations sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BLACK SON	4001 S HOOVER ST	0 - 1/8 (0.001 mi.)	6	11
BURRHART ARNOLD	3886 S VERMONT AVE	W 0 - 1/8 (0.001 mi.)	C7	11
BURGHART ARNOLD	3836 S VERMONT AVE	W 0 - 1/8 (0.002 mi.)	D8	11
LEE W R	3998 S FIGUEROA ST	S 0 - 1/8 (0.003 mi.)	E10	14
WILLIAMSON DONALD	3790 S VERMONT AVE	W 0 - 1/8 (0.003 mi.)	D11	14
UNIVERSITY AUTO SERVICE	3782 S VERMONT AVE	NW 0 - 1/8 (0.005 mi.)	D13	15
COLEMAN G W	3941 S VERMONT AVE	W 0 - 1/8 (0.006 mi.)	B14	15
COON W E	3949 S VERMONT AVE	SW 0 - 1/8 (0.009 mi.)	F18	20
GIBSON THOS	3799 S VERMONT AVE	W 0 - 1/8 (0.011 mi.)	D21	22
SOLES DEAN	1015 39TH PL	W 0 - 1/8 (0.030 mi.)	B23	22
BARTELS C P	1015 W 39TH PL	W 0 - 1/8 (0.031 mi.)	B24	22
BARTELLO CHAS P	1015 W 39TH ST	W 0 - 1/8 (0.038 mi.)	C25	23
MARTIN C N	3742 S VERMONT AVE	N 0 - 1/8 (0.043 mi.)	G26	23
YANKEE J R	3720 S VERMONT AVE	N 0 - 1/8 (0.061 mi.)	G28	23
FRY BROS	3972 S VERMONT AVE	S 0 - 1/8 (0.067 mi.)	H29	24
FRASEUR EARL	970 EXPOSITION BLVD	N 0 - 1/8 (0.077 mi.)	G36	34
GRADY C N	3775 S VERMONT AVE	N 0 - 1/8 (0.078 mi.)	G38	35
FRASEUR R E	979 EXPOSITION BLVD	N 0 - 1/8 (0.090 mi.)	J44	41
DICUS BIRD	3771 S VERMONT AVE	N 0 - 1/8 (0.095 mi.)	G50	46
BERRYHILL V W	3688 S VERMONT AVE	N 1/8 - 1/4 (0.131 mi.)	M59	52
ECKRE C W	3968 S GRAND AVE	E 1/8 - 1/4 (0.135 mi.)	N61	52
HANNERS ORVILLE	3686 S VERMONT AVE	N 1/8 - 1/4 (0.139 mi.)	M62	52
BENJAMIN ARAKEL	3733 S VERMONT AVE	N 1/8 - 1/4 (0.154 mi.)	M63	53
SMITH H E	3970 S HILL ST	E 1/8 - 1/4 (0.159 mi.)	64	53
D & J SHELL SERVICE	1010 W MARTIN LUTHER KI	S 1/8 - 1/4 (0.173 mi.)	P67	54
SHUEY F W	4001 S VERMONT AVE	WSW 1/8 - 1/4 (0.193 mi.)	P82	71
GUTSCHLICHT GEO	3742 S FLOWER ST	NNE 1/8 - 1/4 (0.202 mi.)	S92	75
MARA E C	1010 W 40TH PL	WSW 1/8 - 1/4 (0.215 mi.)	P96	76
KING'S GAS STATION	1100 W MARTIN LUTHER KI	SW 1/8 - 1/4 (0.229 mi.)	Y103	82
COWAN GRAHAM	843 W 37TH PL	NE 1/8 - 1/4 (0.229 mi.)	Z104	82

EDR Historical Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

A review of the EDR Historical Cleaners list, as provided by EDR, has revealed that there are 33 EDR

EXECUTIVE SUMMARY

Historical Cleaners sites within approximately 0.25 miles of the target property.

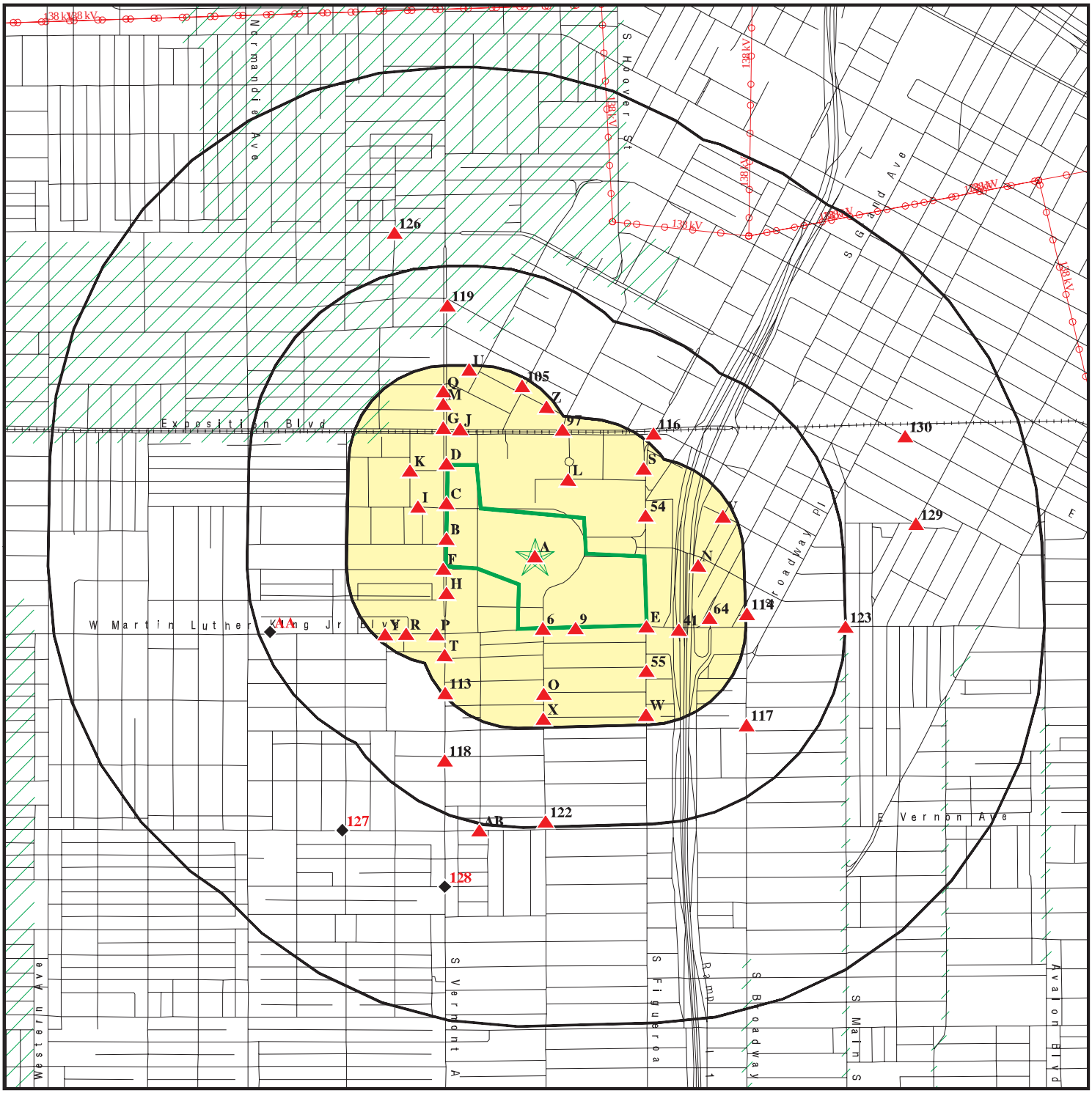
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHOY HELEN	3912 S VERMONT AVE	0 - 1/8 (0.000 mi.)	B4	10
FONG TOM	3902 S VERMONT AVE	0 - 1/8 (0.001 mi.)	C5	11
LEW SING	3827 S VERMONT AVE	W 0 - 1/8 (0.010 mi.)	D19	21
VAN TRESS HALL	3821 S VERMONT AVE	W 0 - 1/8 (0.010 mi.)	D20	21
MADISON R P	1009 W 38TH ST	W 0 - 1/8 (0.026 mi.)	D22	22
MAINS C L	3966 S VERMONT AVE	S 0 - 1/8 (0.051 mi.)	F27	23
O K CLEANERS DYERS	1033 W 39TH ST	W 0 - 1/8 (0.070 mi.)	I31	24
O K CLEANERS DYERS	1035 W 39TH ST	W 0 - 1/8 (0.073 mi.)	I32	25
VARTAMAN GEO	3980 S VERMONT AVE	S 0 - 1/8 (0.086 mi.)	H42	41
PEREZ F R	1044 E 38TH ST	W 0 - 1/8 (0.087 mi.)	K43	41
PARIS FERDINDO	1048 E 38TH ST	W 0 - 1/8 (0.095 mi.)	K53	49
SECOLL JOS	3971 S VERMONT AVE	S 0 - 1/8 (0.116 mi.)	H56	51
LIBERTY CLEANERS TAILORS	3757 S VERMONT AVE	N 0 - 1/8 (0.116 mi.)	M57	51
COHEN MORRIS	3753 S VERMONT AVE	N 0 - 1/8 (0.122 mi.)	M58	51
MILLER ELI	3980 S GRAND AVE	E 1/8 - 1/4 (0.133 mi.)	N60	52
MOORE JOHN	4126 S HOOVER ST	S 1/8 - 1/4 (0.166 mi.)	O65	53
KENNEDY MARY MRS	3719 S VERMONT AVE	N 1/8 - 1/4 (0.174 mi.)	Q71	57
MURRAY B C	4129 S HOOVER ST	S 1/8 - 1/4 (0.177 mi.)	O72	58
PALLER MOSKOWITZ	3711 S VERMONT AVE	N 1/8 - 1/4 (0.186 mi.)	Q76	61
VAN ARTHUR	4016 S VERMONT AVE	WSW 1/8 - 1/4 (0.193 mi.)	P83	71
GOSSARD G M	4034 S VERMONT AVE	WSW 1/8 - 1/4 (0.195 mi.)	T86	73
KIMKEE CHIN	4015 S VERMONT AVE	WSW 1/8 - 1/4 (0.196 mi.)	T87	74
GOLDSTEIN MAURICE	4031 S VERMONT AVE	WSW 1/8 - 1/4 (0.199 mi.)	T89	74
DALTON J F	4155 S HOOVER ST	S 1/8 - 1/4 (0.201 mi.)	O90	74
KUNITZ G F	4037 S VERMONT AVE	WSW 1/8 - 1/4 (0.202 mi.)	T91	75
GANSER T G MRS	4060 S VERMONT AVE	WSW 1/8 - 1/4 (0.203 mi.)	T93	75
SCHLOSSBERG LOUIS	3722 MC CLINTOCK AVE	N 1/8 - 1/4 (0.213 mi.)	U95	76
GANSER TERESA MRS	4084 S VERMONT AVE	WSW 1/8 - 1/4 (0.216 mi.)	T98	77
QUONG WANG	4171 S HOOVER ST	S 1/8 - 1/4 (0.228 mi.)	X101	81
MOORE JOHN MC B	4175 S HOOVER ST	S 1/8 - 1/4 (0.231 mi.)	X107	85
VLAMING JOHANNA	384 W 38TH ST	ENE 1/8 - 1/4 (0.232 mi.)	V110	86
DALTON J F	4183 S HOOVER ST	S 1/8 - 1/4 (0.239 mi.)	X111	86
DIANA CLEANERS	4122 S VERMONT AVE	SW 1/8 - 1/4 (0.244 mi.)	113	87

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

Site Name	Database(s)
PACIFIC PIONEER PLASTIC CO	CERCLIS-NFRAP
BREEN LABORATORIES	HIST UST,HMS LOS ANGELES,LUST SAN MATEO
USC/NORRIS CANCER HOSPITAL	RCRA-LQG
UNIFIED GROCERS, INC - BAKERY FACI	RCRA-LQG
LA 180	ERNS
THE PARCEL EAST OF 5537 ALHAMBRA A	ERNS
LA BERTH 73	ERNS
LA BERTH 73	ERNS
BERTH LA 240	ERNS
LA BERTH 198	ERNS
BERTH 203, LA HARBOR	ERNS
LA HARBOR	ERNS
LA/LB HARBOR	ERNS
LA TOFC RAMP YARD	ERNS
WESTERNMOST FINGER OF THE PORT OF	ERNS
WESTERNMOST FINGER OF THE PORT OF	ERNS
LA BERTH 168 / SHELL TERMINAL 200	ERNS
LA DOCK 189	ERNS
LA CO., DPSS/SPACE SERVICES SE	FINDS,EMI
LA CO B&H WILL RODGERS BEACH	HMS LOS ANGELES

OVERVIEW MAP - 3223843.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: USC/LA Memorial Coliseum	CLIENT: Converse Consultants
ADDRESS: 3911 South Figueroa Street Los Angeles CA 90037	CONTACT: Lisa Walldez
LAT/LONG: 34.0137 / 118.2876	INQUIRY #: 3223843.2s DATE: December 13, 2011 1:39 pm

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DETAIL MAP - 3223843.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: USC/LA Memorial Coliseum	CLIENT: Converse Consultants
ADDRESS: 3911 South Figueroa Street Los Angeles CA 90037	CONTACT: Lisa Walldez
LAT/LONG: 34.0137 / 118.2876	INQUIRY #: 3223843.2s DATE: December 13, 2011 1:41 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	2	1	NR	NR	NR	3
RCRA-SQG	X	0.250	2	5	NR	NR	NR	7
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		1.000	0	0	1	7	NR	8
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST		0.500	2	2	6	NR	NR	10
SLIC		0.500	0	2	0	NR	NR	2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	1	2	NR	NR	NR	3
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	2	1	NR	NR	3
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
AOCONCERN		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.250	9	9	NR	NR	NR	18
HIST UST		0.250	6	3	NR	NR	NR	9
SWEEPS UST		0.250	8	10	NR	NR	NR	18
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
CHMIRS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS		TP	NR	NR	NR	NR	NR	0
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS	X	TP	NR	NR	NR	NR	NR	0
HIST FTTS	X	TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0
HIST CORTESE		0.500	1	2	4	NR	NR	7
Notify 65		1.000	0	0	0	0	NR	0
LA Co. Site Mitigation		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
LOS ANGELES CO. HMS		TP	NR	NR	NR	NR	NR	0
ENF		TP	NR	NR	NR	NR	NR	0
HAZNET	X	TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
HWT		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Historical Auto Stations		0.250	19	11	NR	NR	NR	30
EDR Historical Cleaners		0.250	14	19	NR	NR	NR	33

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property **LA EXPOSITION PARK**
3911 S FIGUERO ST
LOS ANGELES, CA 90037

RCRA-SQG **1000225908**
FINDS **CAD981987688**

Site 1 of 3 in cluster A

Actual: 162 ft.

RCRA-SQG:

Date form received by agency:	03/24/1987
Facility name:	LA EXPOSITION PARK
Facility address:	3911 S FIGUERO ST LOS ANGELES, CA 90037
EPA ID:	CAD981987688
Mailing address:	200 N MAIN RM EIGHTH HUNDRED C LOS ANGELES, CA 90012
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3911 S FIGUERO ST LOS ANGELES, CA 90037
Contact country:	US
Contact telephone:	(213) 485-7527
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LOS ANGELES CITY OF
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

LA EXPOSITION PARK (Continued) **1000225908**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002766837

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A2 **CITY OF L A GENERAL SERVICES** **HAZNET** **S105088662**
Target **3911 S FIGUERO ST** **N/A**
Property **LOS ANGELES, CA 90037**

Site 2 of 3 in cluster A

Actual:
162 ft.

HAZNET:
Year: 2000
Gepaid: CAD981987688
Contact: CITY OF L A DEPT OF GEN SRVCS
Telephone: 2134737746
Mailing Name: Not reported
Mailing Address: 419 S SPRING ST 12TH FLOOR
Mailing City,St,Zip: LOS ANGELES, CA 900134121
Gen County: Los Angeles
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: H01
Tons: .0600
Facility County: Los Angeles

A3 **LOS ANGELES MEMORIAL COLISEUM** **FTTS** **1006282785**
Target **3911 S FIGUEROA ST** **HIST FTTS** **N/A**
Property **LOS ANGELES, CA 90037** **FINDS**

Site 3 of 3 in cluster A

Actual:
162 ft.

FTTS INSP:
Inspection Number: 19880127CA001 2
Region: 09
Inspection Date: 01/27/88
Inspector: BERMAN
Violation occurred: No

LOS ANGELES MEMORIAL COLISEUM (Continued) **1006282785**

Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 19880127CA001 2
Region: 09
Inspection Date: Not reported
Inspector: BERMAN
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

FINDS:

Registry ID: 110011660470

Environmental Interest/Information System
NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

B4 **CHOY HELEN** **EDR Historical Cleaners** **1009190718**
3912 S VERMONT AVE **N/A**
< 1/8 **LOS ANGELES, CA**
1 ft.

Site 1 of 5 in cluster B

Relative: Higher
Actual: 173 ft.

EDR Historical Cleaners:
Name: SHON SAM
Year: 1929
Type: LAUNDRIES ORIENTAL

Name: SHON SAML
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: SHON SAML
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

Name: CHOY HELEN
Year: 1942
Type: LAUNDRIES ORIENTAL

C5 **FONG TOM** **EDR Historical Cleaners** **1009193862**
3902 S VERMONT AVE **N/A**
< 1/8 **LOS ANGELES, CA**
0.001 mi.
3 ft. **Site 1 of 3 in cluster C**

Relative: EDR Historical Cleaners:
Higher Name: FONG TOM
Year: 1942
Actual: Type: LAUNDRIES ORIENTAL
173 ft.

---

6 **BLACK SON** **EDR Historical Auto Stations** **1009080137**
4001 S HOOVER ST **N/A**
< 1/8 **LOS ANGELES, CA**
0.001 mi.
5 ft.

Relative: EDR Historical Auto Stations:
Higher Name: STERLING REFINING CO
Year: 1924
Actual: Type: AUTOMOBILE SERVICE STATIONS
171 ft.

Name: GROSLYN JACK
Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: CUTSCHLICHT MUELLER
Year: 1929
Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS

Name: BLACK SON
Year: 1933
Type: AUTOMOBILE REPAIRING

C7 **BURRHART ARNOLD** **EDR Historical Auto Stations** **1009081923**
West **3886 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.001 mi.
6 ft. **Site 2 of 3 in cluster C**

Relative: EDR Historical Auto Stations:
Higher Name: BURRHART ARNOLD
Year: 1937
Actual: Type: GASOLINE AND OIL SERVICE STATIONS
173 ft.

D8 **BURGHART ARNOLD** **EDR Historical Auto Stations** **1009079828**
West **3836 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.002 mi.
12 ft. **Site 1 of 7 in cluster D**

Relative: EDR Historical Auto Stations:
Higher Name: BURGHART ARNOLD
Year: 1933
Actual: Type: GASOLINE AND OIL SERVICE STATIONS
173 ft.

Name: BURGHART ARNOLD

BURGHART ARNOLD (Continued) **1009079828**

Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

9
South
< 1/8
0.002 mi.
13 ft.

ARCO #3000 **HIST CORTESE** **S102424235**
504 MARTIN LUTHER KING BLVD **LUST** **N/A**
LOS ANGELES, CA 90037

Relative:
Higher

Actual:
171 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900370016

LUST:
Region: STATE
Global Id: T0603700904
Latitude: 34.0111264
Longitude: -118.2827985
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/21/1996
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370016
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0603700904
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700904
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

LUST:
Global Id: T0603700904
Action Type: Other

ARCO #3000 (Continued) **S102424235**

Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700904
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370016
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700904
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: FIGUEROA
Enforcement Type: Not reported
Date Leak Discovered: 5/6/1991
Date Leak First Reported: 4/13/1988
Date Leak Record Entered: 4/13/1988
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 10/16/1996
Date the Case was Closed: 8/21/1996
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 5531.2876936843360948615437469
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 5/10/1991
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported

ARCO #3000 (Continued) **S102424235**

Responsible Party: ARCO LEGAL
RP Address: 1055 W 07TH ST.,P.O. BOX 2570, LOS ANGELES CA 90051
Program: LUST
Lat/Long: 34.0109474 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: ASSIGNED CASE TO DK

E10 **LEE W R** **EDR Historical Auto Stations** **1009079121**
South **3998 S FIGUEROA ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.003 mi.
14 ft. **Site 1 of 4 in cluster E**

Relative: Higher
Actual: 178 ft.

EDR Historical Auto Stations:
Name: LEE W R
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

D11 **WILLIAMSON DONALD** **EDR Historical Auto Stations** **1009080722**
West **3790 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.003 mi.
18 ft. **Site 2 of 7 in cluster D**

Relative: Higher
Actual: 174 ft.

EDR Historical Auto Stations:
Name: WILLIAMSON DONALD
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

E12 **ATLANTIC RICHFIELD CO., SOHNS ARCO 3000** **CA FID UST** **S101583291**
South **504 W MARTIN LUTHER KING BLVD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.003 mi.
18 ft. **Site 2 of 4 in cluster E**

Relative: Higher
Actual: 178 ft.

CA FID UST:
Facility ID: 19003279
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132315541
Mail To: Not reported
Mailing Address: 17315 STUDEBAKER RD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported

ATLANTIC RICHFIELD CO., SOHNS ARCO 3000 (Continued) **S101583291**

EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 4470
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

D13
NW
< 1/8
0.005 mi.
26 ft.

Relative:
Higher

Actual:
174 ft.

UNIVERSITY AUTO SERVICE **EDR Historical Auto Stations** **1009079720**
3782 S VERMONT AVE **N/A**
LOS ANGELES, CA

Site 3 of 7 in cluster D

EDR Historical Auto Stations:
Name: UNIVERSITY AUTO SERVICE
Year: 1924
Type: AUTOMOBILE REPAIRING

B14
West
< 1/8
0.006 mi.
34 ft.

Relative:
Higher

Actual:
173 ft.

COLEMAN G W **EDR Historical Auto Stations** **1009082971**
3941 S VERMONT AVE **N/A**
LOS ANGELES, CA

Site 2 of 5 in cluster B

EDR Historical Auto Stations:
Name: COLEMAN G W
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

E15
South
< 1/8
0.007 mi.
37 ft.

Relative:
Higher

Actual:
178 ft.

CHEVRON SS# 20-7494 **UST** **U003982158**
4000 S FIGUEROA ST **N/A**
LOS ANGELES, CA 90037

Site 3 of 4 in cluster E

UST:
Facility ID: 6836
Latitude: 34.01108
Longitude: -118.28271

E16
South
< 1/8
0.007 mi.
37 ft.

CHEVRON 207669
4000 S FIGUEROA BLVD
LOS ANGELES, CA 90037

Site 4 of 4 in cluster E

RCRA-LQG
FINDS
HAZNET

1006805232
CAR000124925

Relative:
Higher

Actual:
178 ft.

RCRA-LQG:

Date form received by agency:	02/19/2008
Facility name:	CHEVRON 207669
Facility address:	4000 S FIGUEROA BLVD. LOS ANGELES, CA 90037
EPA ID:	CAR000124925
Mailing address:	PO BOX 6004 SAN RAMON, CA 94583
Contact:	KATHY L NORRIS
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(925) 842-5931
Contact email:	NAWTDESK@CHEVRON.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	CHEVRON PRODUCTS CO.
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	09/30/1998
Owner/Op end date:	Not reported

Owner/operator name:	CHEVRON PRODUCTS CO
Owner/operator address:	P O BOX 6004 SAN RAMON, CA 94583
Owner/operator country:	Not reported
Owner/operator telephone:	(925) 842-5931
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	CHEVRON PRODUCTS CO.
Owner/operator address:	PO BOX 6004 SAN RAMON, CA 94583

CHEVRON 207669 (Continued) **1006805232**

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/30/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 06/17/2002
Facility name: CHEVRON 207669
Site name: CHEVRON STATION NO 207669
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Violation Status: No violations found

CHEVRON 207669 (Continued) **1006805232**

FINDS:

Registry ID: 110013309302

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year:	2010
Gepaid:	CAR000124925
Contact:	KATHY NORRIS - RM L2173
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	METALS RECOVERY INCLUDING RETORING,SMELTING,CHEMICALS,ECT
Tons:	0.025
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAR000124925
Contact:	KATHY NORRIS - RM L2173
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.01
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAR000124925
Contact:	KATHY NORRIS - RM L2173
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004

CHEVRON 207669 (Continued) **1006805232**

Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.17
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAR000124925
Contact:	KATHY NORRIS - RM L2173
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	METALS RECOVERY INCLUDING RETORING,SMELTING,CHEMICALS,ECT
Tons:	0.0125
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAR000124925
Contact:	KATHY NORRIS - RM L2173
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.01
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
20 additional CA_HAZNET: record(s) in the EDR Site Report.

B17 **UHEL DEAN & STANLEY SOLES** **CA FID UST** **S101585894**
West **3929 S VERMONT AVE** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90037** **HAZNET**
0.007 mi.
38 ft. **Site 3 of 5 in cluster B**

Relative:
Higher

Actual:
172 ft.

CA FID UST:

Facility ID:	19032425
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2136912996
Mail To:	Not reported

UHEL DEAN & STANLEY SOLES (Continued) **S101585894**

Mailing Address: 3929 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 4798
Number: 2
Board Of Equalization: Not reported
Ref Date: 02-25-93
Act Date: 03-07-94
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

HAZNET:
Year: 1995
Gepaid: CAC001037592
Contact: UHEL DEAN & STANLEY SOLES
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 620 HACIENDA DR
Mailing City,St,Zip: LA HABRA, CA 906310000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: R01
Tons: 12.3015
Facility County: Los Angeles

F18 **COON W E** **EDR Historical Auto Stations** **1009076873**
SW **3949 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.009 mi.
45 ft. **Site 1 of 2 in cluster F**

Relative:
Higher

Actual:
173 ft.

EDR Historical Auto Stations:
Name: COLEMAN G W
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

Name: COLEMAN G W

COON W E (Continued) **1009076873**

Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: COLEMANS G W SUPER SERVICE STATION
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: FIELDING J F
Year: 1937
Type: AUTOMOBILE REPAIRING

Name: COON W E
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

D19 **LEW SING** **EDR Historical Cleaners** **1009188546**
West **3827 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.010 mi.
55 ft. **Site 4 of 7 in cluster D**

Relative:
Higher

Actual:
174 ft.

EDR Historical Cleaners:
Name: ARNHART A F
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: LEW SING
Year: 1937
Type: LAUNDRIES CHINESE

D20 **VAN TRESS HALL** **EDR Historical Cleaners** **1009187858**
West **3821 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.010 mi.
55 ft. **Site 5 of 7 in cluster D**

Relative:
Higher

Actual:
174 ft.

EDR Historical Cleaners:
Name: EXPOSITION DYE WORKS
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

Name: VAN TRESS HALL
Year: 1929
Type: CLEANERS AND DYERS

D21 **GIBSON THOS** **EDR Historical Auto Stations** **1009077645**
West **3799 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.011 mi.
57 ft. **Site 6 of 7 in cluster D**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:

Name:	KILLINGER H E
Year:	1924
Type:	AUTOMOBILE SERVICE STATIONS
Name:	GIBSON THOS
Year:	1929
Type:	GASOLINE AND OIL SERVICE STATION

D22 **MADISON R P** **EDR Historical Cleaners** **1009190148**
West **1009 W 38TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.026 mi.
136 ft. **Site 7 of 7 in cluster D**

Relative:
Higher

Actual:
174 ft.

EDR Historical Cleaners:

Name:	MADISON R P
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS

B23 **SOLES DEAN** **EDR Historical Auto Stations** **1009084321**
West **1015 39TH PL** **N/A**
< 1/8 **LOS ANGELES, CA**
0.030 mi.
160 ft. **Site 4 of 5 in cluster B**

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:

Name:	SOLES DEAN
Year:	1942
Type:	AUTOMOBILE REPAIRING

B24 **BARTELS C P** **EDR Historical Auto Stations** **1009076142**
West **1015 W 39TH PL** **N/A**
< 1/8 **LOS ANGELES, CA**
0.031 mi.
164 ft. **Site 5 of 5 in cluster B**

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:

Name:	BARTELS C P
Year:	1924
Type:	AUTOMOBILE REPAIRING
Name:	BARTELS C P
Year:	1933
Type:	AUTOMOBILE REPAIRING

C25 **BARTELLO CHAS P** **EDR Historical Auto Stations** **1009078134**
West **1015 W 39TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.038 mi.
203 ft. **Site 3 of 3 in cluster C**

Relative:
Higher

Actual:
173 ft.

EDR Historical Auto Stations:
Name: BARTELLO CHAS P
Year: 1929
Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS

G26 **MARTIN C N** **EDR Historical Auto Stations** **1009078292**
North **3742 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.043 mi.
227 ft. **Site 1 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:
Name: SMITH R E
Year: 1924
Type: AUTOMOBILE REPAIRING

Name: MARTIN C N
Year: 1929
Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS

F27 **MAINS C L** **EDR Historical Cleaners** **1009190006**
South **3966 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.051 mi.
271 ft. **Site 2 of 2 in cluster F**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:
Name: MAINS C L
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

G28 **YANKEE J R** **EDR Historical Auto Stations** **1009077631**
North **3720 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.061 mi.
321 ft. **Site 2 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:
Name: CLINE HANSON
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

Name: MURPHY J E
Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: SMITH F A
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: SMITH H G

YANKEE J R (Continued) **1009077631**

Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: YANKEE J R
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

H29 **FRY BROS** **EDR Historical Auto Stations** **1009081048**
South **3972 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.067 mi.
354 ft. **Site 1 of 3 in cluster H**

Relative:
Higher

Actual:
172 ft.

EDR Historical Auto Stations:
Name: FRY BROS
Year: 1937
Type: AUTOMOBILE REPAIRING

G30 **ARCO** **CA FID UST** **S101588198**
North **3777 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90007**
0.069 mi.
363 ft. **Site 3 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

CA FID UST:
Facility ID: 19056438
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 3777 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900070000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

I31 **O K CLEANERS DYERS** **EDR Historical Cleaners** **1009189832**
West **1033 W 39TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.070 mi.
369 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:
Name: O K CLEANERS DYERS
Year: 1929
Type: CLEANERS AND DYERS

I32 **O K CLEANERS DYERS** **EDR Historical Cleaners** **1009188035**
West **1035 W 39TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.073 mi.
384 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name:	COCHRAN LEONARD
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	O K CLEANERS DYERS
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS
Name:	O K CLEANERS DYERS
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS

J33 **NATURAL HISTORY MUSEUM LA CO** **RCRA-LQG** **1000426782**
North **900 EXPOSITION BLVD** **FINDS** **CAD982412207**
< 1/8 **LOS ANGELES, CA 90007** **HAZNET**
0.076 mi.
401 ft. **Site 1 of 4 in cluster J**

Relative:
Higher

Actual:
175 ft.

RCRA-LQG:

Date form received by agency:	06/23/2010
Facility name:	NATURAL HISTORY MUSEUM OF L.A. COUNTY
Facility address:	900 EXPOSITION BLVD LOS ANGELES, CA 90007
EPA ID:	CAD982412207
Mailing address:	EXPOSITION BLVD LOS ANGELES, CA 90007
Contact:	RICK J VALDEZ
Contact address:	EXPOSITION BLVD LOS ANGELES, CA 90007
Contact country:	Not reported
Contact telephone:	(213) 763-3541
Contact email:	RVALDEZ@NHM.ORG
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	COUNTY OF LOS ANGELES
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NATURAL HISTORY MUSEUM OF LA COUNTY
Owner/operator address: EXPOSITION BLVD
LOS ANGELES, CA 90007
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1913
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NATURAL HISTORY MUSEUM OF LA COUNTY
Owner/operator address: Not reported
90007
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: 06/15/1989
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Facility name: NATURAL HISTORY MUSEUM OF L.A. COUNTY

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Site name: NATURAL HISTORY MUSEUM LA CO
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: 151
Waste name: 151

Waste code: 331
Waste name: 331

Waste code: 343
Waste name: 343

Waste code: 352
Waste name: 352

Waste code: 551
Waste name: 551

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D005
Waste name: BARIUM

Waste code: D022
Waste name: CHLOROFORM

Waste code: D027
Waste name: 1,4-DICHLOROBENZENE

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: P096
Waste name: HYDROGEN PHOSPHIDE

Waste code: U072
Waste name: BENZENE, 1,4-DICHLORO-

Waste code: U122
Waste name: FORMALDEHYDE

Waste code: U186
Waste name: 1-METHYLBUTADIENE (I)

Waste code: U188
Waste name: PHENOL

Biennial Reports:

Last Biennial Reporting Year: 2011

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 6755

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 2855

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 2575

Waste code: F003

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 1945

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 210

Waste code: P098
Waste name: POTASSIUM CYANIDE
Amount (Lbs): 1145

Waste code: U122
Waste name: FORMALDEHYDE
Amount (Lbs): 210

Violation Status: No violations found

FINDS:

Registry ID: 110002807437

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 2010
Gepaid: CAD982412207
Contact: R VALDEZ/SECURITY & SFTY SPEC
Telephone: 2137633541
Mailing Name: Not reported
Mailing Address: 900 EXPOSITION BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900074057
Gen County: Not reported
TSD EPA ID: UTD981552177
TSD County: Not reported

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Waste Category: Unspecified aqueous solution
Disposal Method: INCINERATION--THERMAL DESTRUCTION OTHER THAN USE AS A FUEL
Tons: 0.9
Facility County: Los Angeles

Year: 2010
Gepaid: CAD982412207
Contact: R VALDEZ/SECURITY & SFTY SPEC
Telephone: 2137633541
Mailing Name: Not reported
Mailing Address: 900 EXPOSITION BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900074057
Gen County: Not reported
TSD EPA ID: CAD097030993
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.0625
Facility County: Los Angeles

Year: 2010
Gepaid: CAD982412207
Contact: R VALDEZ/SECURITY & SFTY SPEC
Telephone: 2137633541
Mailing Name: Not reported
Mailing Address: 900 EXPOSITION BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900074057
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.045
Facility County: Los Angeles

Year: 2010
Gepaid: CAD982412207
Contact: R VALDEZ/SECURITY & SFTY SPEC
Telephone: 2137633541
Mailing Name: Not reported
Mailing Address: 900 EXPOSITION BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900074057
Gen County: Not reported
TSD EPA ID: ARD981057870
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons: 0.4125
Facility County: Los Angeles

Year: 2009
Gepaid: CAD982412207
Contact: R VALDEZ/SECURITY & SFTY SPEC
Telephone: 2137633541
Mailing Name: Not reported

NATURAL HISTORY MUSEUM LA CO (Continued) **1000426782**

Mailing Address: 900 EXPOSITION BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900074057
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Unspecified solvent mixture
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.0025
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
132 additional CA_HAZNET: record(s) in the EDR Site Report.

J34 **COUNTY OF LOS ANGELES ISD** **NPDES S101617585**
North **900 EXPOSITION BLVD** **CA FID UST N/A**
< 1/8 **LOS ANGELES, CA 90007** **SWEEPS UST**
0.076 mi. **HAZNET**
401 ft. **Site 2 of 4 in cluster J**

Relative:
Higher

Actual:
175 ft.

NPDES:
Npdes Number: CAS000002
Facility Status: Terminated
Agency Id: Not reported
Region: 4
Regulatory Measure Id: 400066
Order No: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 4 19C356413
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 09/24/2009
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 09/02/2010
Discharge Name: LA Cnty Natural History Museum Foundation
Discharge Address: 900 Exposition Blvd
Discharge City: Los Angeles
Discharge State: California
Discharge Zip: 90007

CA FID UST:
Facility ID: 19006064
Regulated By: UTNKA
Regulated ID: 00020699
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132672242
Mail To: Not reported
Mailing Address: 1100 N EASTERN AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900630000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

COUNTY OF LOS ANGELES ISD (Continued) **S101617585**

Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 1453
Number: 4
Board Of Equalization: 44-011798
Ref Date: 01-22-93
Act Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001453-000001
Actv Date: 04-20-88
Capacity: 1000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 1

HAZNET:
Year: 2009
Gepaid: CAC002641465
Contact: CLARIS SAHAKIAM
Telephone: 3238814693
Mailing Name: Not reported
Mailing Address: 1100 N EASTERN AVE RM 225
Mailing City,St,Zip: LOS ANGELES, CA 90063
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos containing waste
Disposal Method: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons: 2
Facility County: Los Angeles

Year: 2007
Gepaid: CAC002613380
Contact: LYN COX
Telephone: 7143748310
Mailing Name: Not reported
Mailing Address: 21552 NEWLAND ST
Mailing City,St,Zip: HUNTINGTON BEACH, CA 926467608
Gen County: Los Angeles
TSD EPA ID: TXD077603371
TSD County: 99
Waste Category: Waste oil and mixed oil
Disposal Method: FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons: 0.18
Facility County: Los Angeles

Year: 2003
Gepaid: CAC002553354
Contact: BELINDA RAMIREZ

COUNTY OF LOS ANGELES ISD (Continued) **S101617585**

Telephone: 3232673137
Mailing Name: Not reported
Mailing Address: 1100 N EASTERN AVE
Mailing City,St,Zip: LOS ANGELES, CA 90063
Gen County: Los Angeles
TSD EPA ID: AZR000005454
TSD County: Los Angeles
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: R01
Tons: 1.87
Facility County: Los Angeles

Year: 2002
Gepaid: CAC002553354
Contact: BELINDA RAMIREZ
Telephone: 3232673137
Mailing Name: Not reported
Mailing Address: 1100 N EASTERN AVE
Mailing City,St,Zip: LOS ANGELES, CA 90063
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: 99
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: R01
Tons: 2.09
Facility County: Not reported

J35 **MUSEUM OF NATURAL HISTORY** **NPDES** **U001562346**
North **900 EXPOSITION BLVD** **HIST UST** **N/A**
< 1/8 **LOS ANGELES, CA 90063**
0.076 mi.
401 ft. **Site 3 of 4 in cluster J**

Relative:
Higher

Actual:
175 ft.

NPDES:
Npdes Number: CAS000002
Facility Status: Active
Agency Id: Not reported
Region: 4
Regulatory Measure Id: 414358
Order No: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 4 19C361410
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 07/11/2011
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Los Angeles County Natural History Museum Foundation
Discharge Address: 900 Exposition Blvd
Discharge City: Los Angeles
Discharge State: California
Discharge Zip: 90007

HIST UST:
Region: STATE
Facility ID: 00000020699

MUSEUM OF NATURAL HISTORY (Continued) **U001562346**

Facility Type: Other
Other Type: MUSEUM
Total Tanks: 0001
Contact Name: L.A. COUNTY MECHANCIAL DEPT.
Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 N. EASTERN AVE.
Owner City,St,Zip: LOS ANGELES, CA 90063

Tank Num: 001
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

G36 **FRASEUR EARL** **EDR Historical Auto Stations** **1009076494**
North **970 EXPOSITION BLVD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.077 mi.
406 ft. **Site 4 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:
Name: FRASEUR R E
Year: 1924
Type: AUTOMOBILE REPAIRING

Name: FRASEUR EARL
Year: 1929
Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS

G37 **C N GRADY** **HIST UST** **U001560375**
North **3775 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90007**
0.078 mi.
410 ft. **Site 5 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

HIST UST:
Region: STATE
Facility ID: 00000026489
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: Not reported
Telephone: 0000000000
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071

Tank Num: 001
Container Num: 0000000001
Year Installed: 1962
Tank Capacity: 00004000
Tank Used for: PRODUCT

C N GRADY (Continued) **U001560375**

Type of Fuel: 06
Tank Construction: 0000167 inches
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 0000000002
Year Installed: 1962
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000167 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 0000000003
Year Installed: 1962
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 0000000004
Year Installed: 1973
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 0000000005
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: PRODUCT
Type of Fuel: WASTE OIL
Tank Construction: 0000093 inches
Leak Detection: Stock Inventor

G38 **GRADY C N** **EDR Historical Auto Stations** **1009080046**
North **3775 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.078 mi.
410 ft. **Site 6 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:
Name: BER YHILL VICTOR
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

Name: GRADY C N
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: GRADY C N
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

G39 **ARCO FACILITY NO. 108** **LUST** **S107472850**
North **3775 VERMONT AVENUE** **N/A**
< 1/8 **LOS ANGELES, CA 90007**
0.078 mi.
410 ft. **Site 7 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

LUST:

Region:	STATE
Global Id:	T0603729495
Latitude:	34.01781
Longitude:	-118.292023
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/06/2006
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	NR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	0025023
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0603729495
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603729495
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

LUST:

Global Id:	T0603729495
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603729495
Action Type:	ENFORCEMENT
Date:	04/06/2006
Action:	Closure/No Further Action Letter - #1

Global Id:	T0603729495
Action Type:	Other
Date:	01/01/1950

ARCO FACILITY NO. 108 (Continued) **S107472850**

Action: Leak Reported

G40 **ARCO SS# 108** **CA FID UST** **S101586156**
North **3775 S VERMONT AVE** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90007**
0.078 mi.
410 ft. **Site 8 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

CA FID UST:

Facility ID:	19039968
Regulated By:	UTNKA
Regulated ID:	00026489
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8002726349
Mail To:	Not reported
Mailing Address:	3775 S VERMONT AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900070000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000001
Actv Date:	Not reported
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	8

Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000002
Actv Date:	Not reported

ARCO SS# 108 (Continued) **S101586156**

Capacity:	4000
Tank Use:	CHEMICAL
Stg:	PRODUCT
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000003
Actv Date:	Not reported
Capacity:	6000
Tank Use:	CHEMICAL
Stg:	PRODUCT
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000004
Actv Date:	Not reported
Capacity:	6000
Tank Use:	CHEMICAL
Stg:	PRODUCT
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000005
Actv Date:	Not reported
Capacity:	280
Tank Use:	OIL
Stg:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

ARCO SS# 108 (Continued) **S101586156**

Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000006
Actv Date:	Not reported
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000007
Actv Date:	Not reported
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1561
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001561-000008
Actv Date:	Not reported
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	PRM UNLEADED
Number Of Tanks:	Not reported

41
East
< 1/8
0.081 mi.
430 ft.

BONG MO JUNG
504 W SANTA BARBARA AVE
LOS ANGELES, CA 90037

HIST UST **U001561449**
N/A

Relative:
Higher

Actual:
181 ft.

HIST UST:

Region:	STATE
Facility ID:	00000026704
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0005
Contact Name:	Not reported
Telephone:	0000000000
Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Owner Address:	515 SOUTH FLOWER STREET
Owner City,St,Zip:	LOS ANGELES, CA 90071
Tank Num:	001
Container Num:	0000000001
Year Installed:	1967
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	0000000002
Year Installed:	1967
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor, 10
Tank Num:	003
Container Num:	0000000003
Year Installed:	1967
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor, 10
Tank Num:	004
Container Num:	0000000004
Year Installed:	1967
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor, 10
Tank Num:	005
Container Num:	0000000005
Year Installed:	1967
Tank Capacity:	00000280
Tank Used for:	PRODUCT

BONG MO JUNG (Continued) **U001561449**

Type of Fuel: WASTE OIL
Tank Construction: 0000093 inches
Leak Detection: Stock Inventor

H42 **VARTAMAN GEO** **EDR Historical Cleaners** **1009190979**
South **3980 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.086 mi.
455 ft. **Site 2 of 3 in cluster H**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name: LUBBERS ANNA
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

Name: LUBBERS ANNA MRS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: VARTAMAN GEO
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

K43 **PEREZ F R** **EDR Historical Cleaners** **1009191979**
West **1044 E 38TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.087 mi.
461 ft. **Site 1 of 2 in cluster K**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name: PEREZ F R
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

J44 **FRASEUR R E** **EDR Historical Auto Stations** **1009079535**
North **979 EXPOSITION BLVD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.090 mi.
476 ft. **Site 4 of 4 in cluster J**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:

Name: LEDBETTER A U
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

Name: FRASEUR R E
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: FRASEUR R E
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

L45 **ARMORY BLDG** **RCRA-SQG** **1000905047**
North **700 STATE DR** **FINDS** **CA0000283739**
< 1/8 **LOS ANGELES, CA 90037**
0.093 mi.
489 ft. **Site 1 of 5 in cluster L**

Relative:
Higher

Actual:
179 ft.

RCRA-SQG:

Date form received by agency:	05/24/2002
Facility name:	ARMORY BLDG
Facility address:	700 STATE DR LOS ANGELES, CA 90037
EPA ID:	CA0000283739
Mailing address:	1449 S SAN PEDRO ST LOS ANGELES, CA 90015
Contact:	SOE AUNG
Contact address:	1449 S SAN PEDRO ST LOS ANGELES, CA 90015
Contact country:	US
Contact telephone:	(213) 743-5086
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Owner/operator address:	1449 S SAN PEDRO ST LOS ANGELES, CA 90015
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 743-5086
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	05/24/2002

ARMORY BLDG (Continued) **1000905047**

Facility name: ARMORY BLDG
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: ARMORY BLDG
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002616447

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

L46 **CALIFORNIA MUSEUM OF SCIENCE &** **HIST UST** **U001561452**
North **700 STATE DR** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.093 mi.
489 ft. **Site 2 of 5 in cluster L**

Relative:
Higher

Actual:
179 ft.

HIST UST:
Region: STATE
Facility ID: 00000006471
Facility Type: Other
Other Type: STATE MUSEUM
Total Tanks: 0001
Contact Name: Not reported
Telephone: 2137447500
Owner Name: CALIFORNIA MUSEUM OF SCIENCE A
Owner Address: 700 STATE DRIVE
Owner City,St,Zip: LOS ANGELES, CA 90037

Tank Num: 001
Container Num: S 1-1
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported

CALIFORNIA MUSEUM OF SCIENCE & (Continued) **U001561452**

Leak Detection: None

L47 **LAUSD--MANUAL ARTS NEW ES #1** **RCRA-SQG** **1008194706**
North **700 STATE DR.** **CAO000283739**
< 1/8 **LOS ANGELES, CA 90037**
0.093 mi.
489 ft. **Site 3 of 5 in cluster L**

Relative:
Higher

Actual:
179 ft.

RCRA-SQG:

Date form received by agency:	03/31/2004
Facility name:	LAUSD--MANUAL ARTS NEW ES #1
Facility address:	700 STATE DR. LOS ANGELES, CA 90037
EPA ID:	CAO000283739
Mailing address:	333 S. BEAUDRY AVE. 20TH FL LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(213) 241-3199
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LAUSD
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

Owner/operator name:	LAUSD
Owner/operator address:	333 S. BEAUDRY AVE. 20TH FL LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No

LAUSD--MANUAL ARTS NEW ES #1 (Continued) **1008194706**

Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	03/31/2004
Facility name:	LAUSD--MANUAL ARTS NEW ES #1
Classification:	Large Quantity Generator

Hazardous Waste Summary:

Waste code:	D008
Waste name:	LEAD

Violation Status: No violations found

L48 **CALIFORNIA MUSEUM OF SCIENCE** **SWEEPS UST** **S106923863**
North **700 STATE ST** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.093 mi.
489 ft. **Site 4 of 5 in cluster L**

Relative:
Higher

Actual:
179 ft.

SWEEPS UST:

Status:	A
Comp Number:	723
Number:	6
Board Of Equalization:	44-011358
Ref Date:	03-04-93
Act Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-000723-000001
Actv Date:	04-20-88
Capacity:	Not reported
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	1

L49 **CALIFORNIA SCIENCE CENTER** **CA FID UST** **S101617388**
North **700 STATE DR** **HAZNET** **N/A**
< 1/8 **LOS ANGELES, CA 90037**
0.093 mi.
489 ft. **Site 5 of 5 in cluster L**

Relative:
Higher

Actual:
179 ft.

CA FID UST:

Facility ID:	19004516
Regulated By:	UTNKA
Regulated ID:	00006471

CALIFORNIA SCIENCE CENTER (Continued) **S101617388**

Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2137447500
Mail To:	Not reported
Mailing Address:	700 STATE DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900370000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

HAZNET:

Year:	2009
Gepaid:	CAC002638549
Contact:	JOHN FUNKHOUSER
Telephone:	3105605405
Mailing Name:	Not reported
Mailing Address:	700 STATE DR
Mailing City,St,Zip:	LOS ANGELES, CA 90037
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.0042
Facility County:	Los Angeles

G50 **DICUS BIRD** **EDR Historical Auto Stations** **1009084771**
North **3771 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.095 mi.
500 ft. **Site 9 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

EDR Historical Auto Stations:

Name:	DICUS BIRD
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

G51 **UNIN OIL SERVICE STATION 2059** **HIST UST** **U001560398**
North **3771 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90007**
0.095 mi.
500 ft. **Site 10 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

HIST UST:

Region:	STATE
Facility ID:	00000055750
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0001
Contact Name:	BASSAM M. HADDAD

UNIN OIL SERVICE STATION 2059 (Continued) **U001560398**

Telephone: 2137349997
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: 3701 WILSHIRE BOULEVARD- SUITE
Owner City,St,Zip: LOS ANGELES, CA 90010

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000196
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

G52 **SERVICE STATION 2059** **CA FID UST** **1000166645**
North **3771 S VERMONT AVE** **HIST UST** **N/A**
< 1/8 **LOS ANGELES, CA 90007** **SWEEPS UST**
0.095 mi.
500 ft. **Site 11 of 11 in cluster G**

Relative:
Higher

Actual:
174 ft.

CA FID UST:
Facility ID: 19023129
Regulated By: UTNKA
Regulated ID: 00029330
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2137349997
Mail To: Not reported
Mailing Address: 3701 WILSHIRE BLVD-SUITE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900070000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST UST:
Region: STATE
Facility ID: 00000029330
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: BASSAM M HADDAD
Telephone: 2137349997
Owner Name: UNION OIL COMPANY OF CALIF.
Owner Address: 3701 WILSHIRE BOULEVARD ST 830
Owner City,St,Zip: LOS ANGELES, CA 90010

Tank Num: 001
Container Num: 2059-1
Year Installed: 1971
Tank Capacity: 00009940
Tank Used for: PRODUCT
Type of Fuel: UNLEADED

SERVICE STATION 2059 (Continued) **1000166645**

Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 002
Container Num: 2059-2
Year Installed: 1971
Tank Capacity: 00009940
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 2059-4
Year Installed: 1971
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

SWEEPS UST:
Status: Not reported
Comp Number: 1741
Number: Not reported
Board Of Equalization: 44-000051
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001741-000001
Actv Date: Not reported
Capacity: 9940
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Status: Not reported
Comp Number: 1741
Number: Not reported
Board Of Equalization: 44-000051
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001741-000002
Actv Date: Not reported
Capacity: 9940
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported

SERVICE STATION 2059 (Continued) **1000166645**

Comp Number:	1741
Number:	Not reported
Board Of Equalization:	44-000051
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001741-000003
Actv Date:	Not reported
Capacity:	550
Tank Use:	OIL
Stg:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

K53 **PARIS FERDINDO** **EDR Historical Cleaners** **1009191096**
West **1048 E 38TH ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.095 mi.
502 ft. **Site 2 of 2 in cluster K**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name:	PARIS C S MRS
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	PARIS FERDINDO
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS

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54 **UNION 76** **CA FID UST** **S101587861**
North **3820 S FIGUEROA ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90021**
0.103 mi.
544 ft.

Relative:
Higher

Actual:
182 ft.

CA FID UST:

Facility ID:	19056075
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2137525466
Mail To:	Not reported
Mailing Address:	3820 S FIGUEROA ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900210000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

UNION 76 (Continued) **S101587861**

SWEEPS UST:
Status: Not reported
Comp Number: 5539
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

55
South
< 1/8
0.114 mi.
603 ft.

MORY FAMILY TRUST **CA FID UST** **S101586130**
4088 S FIGUEROA ST **SWEEPS UST** **N/A**
LOS ANGELES, CA 90037 **HAZNET**

Relative:
Higher

Actual:
179 ft.

CA FID UST:
Facility ID: 19039136
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 4088 S FIGUEROA ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 4800
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported

MORY FAMILY TRUST (Continued) **S101586130**

Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

HAZNET:
Year: 2010
Gepaid: CAC002654062
Contact: SHARON MOREY
Telephone: 3235672052
Mailing Name: Not reported
Mailing Address: 8633 VIRGINIA AVE
Mailing City,St,Zip: SOUTH GATE, CA 902803011
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons: 0.22935
Facility County: Los Angeles

H56 **SECOLL JOS** **EDR Historical Cleaners** **1009189407**
South **3971 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.116 mi.
610 ft. **Site 3 of 3 in cluster H**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:
Name: SECOLL JOS
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

M57 **LIBERTY CLEANERS TAILORS** **EDR Historical Cleaners** **1009188319**
North **3757 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.116 mi.
611 ft. **Site 1 of 5 in cluster M**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: LIBERTY CLEANERS TAILORS
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

M58 **COHEN MORRIS** **EDR Historical Cleaners** **1009189052**
North **3753 S VERMONT AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.122 mi.
642 ft. **Site 2 of 5 in cluster M**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: COHEN MORRIS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

M59 **BERRYHILL V W** **EDR Historical Auto Stations** **1009079867**
North **3688 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.131 mi.
692 ft. **Site 3 of 5 in cluster M**

Relative: EDR Historical Auto Stations:
Higher Name: BERRYHILL V W
Year: 1933
Actual: Type: GASOLINE AND OIL SERVICE STATIONS
173 ft.

N60 **MILLER ELI** **EDR Historical Cleaners** **1009192978**
East **3980 S GRAND AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.133 mi.
704 ft. **Site 1 of 2 in cluster N**

Relative: EDR Historical Cleaners:
Higher Name: MILLER ELI
Year: 1937
Actual: Type: CLOTHES PRESSERS AND CLEANERS
182 ft.

N61 **ECKRE C W** **EDR Historical Auto Stations** **1009079268**
East **3968 S GRAND AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.135 mi.
713 ft. **Site 2 of 2 in cluster N**

Relative: EDR Historical Auto Stations:
Higher Name: VOIGHT U K
Year: 1929
Actual: Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS
182 ft.

Name: ECKRE CARL
Year: 1937
Type: AUTOMOBILE REPAIRING

Name: ECKRE C W
Year: 1942
Type: AUTOMOBILE REPAIRING

M62 **HANNERS ORVILLE** **EDR Historical Auto Stations** **1009080128**
North **3686 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.139 mi.
735 ft. **Site 4 of 5 in cluster M**

Relative: EDR Historical Auto Stations:
Higher Name: COWAN J W
Year: 1929
Actual: Type: AUTOMOBILE REPAIRING AND SERVICE STATIONS
173 ft.

Name: BERRYHILL VICTOR
Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: BENJAMIN ARAKEL

HANNERS ORVILLE (Continued) **1009080128**

Year: 1933
Type: AUTOMOBILE REPAIRING

Name: FRILLING R H
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: BENJAMIN ARAKEL
Year: 1937
Type: AUTOMOBILE REPAIRING

Name: HANNERS ORVILLE
Year: 1942
Type: AUTOMOBILE REPAIRING

Name: FRILLING BROS
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

M63 **BENJAMIN ARAKEL** **EDR Historical Auto Stations** **1009081836**
North **3733 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.154 mi.
812 ft. **Site 5 of 5 in cluster M**

Relative:
Higher

Actual:
173 ft.

EDR Historical Auto Stations:
Name: BENJAMIN ARAKEL
Year: 1942
Type: AUTOMOBILE REPAIRING

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64 **SMITH H E** **EDR Historical Auto Stations** **1009083818**
East **3970 S HILL ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.159 mi.
838 ft.

Relative:
Higher

Actual:
181 ft.

EDR Historical Auto Stations:
Name: SMITH H E
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

O65 **MOORE JOHN** **EDR Historical Cleaners** **1009192324**
South **4126 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.166 mi.
874 ft. **Site 1 of 3 in cluster O**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: MOORE JOHN
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

P66 **YANG'S SHELL** **UST** **U003984048**
South **1010 W MARTIN LUTHER KING JR BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.173 mi.
911 ft. **Site 1 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

UST:
Facility ID: 7505
Latitude: 34.01085
Longitude: -118.29197

P67 **D & J SHELL SERVICE** **EDR Historical Auto Stations** **1008996180**
South **1010 W MARTIN LUTHER KING JR BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90000**
0.173 mi.
911 ft. **Site 2 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

EDR Historical Auto Stations:
Name: D & J SHELL SERVICE
Year: 1994
Type: Not reported

P68 **C & K SELF SERVICE INC #1** **HIST UST** **U001561451**
South **1010 WEST MARTIN LUTHER KING J** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.173 mi.
911 ft. **Site 3 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

HIST UST:
Region: STATE
Facility ID: 00000006358
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Contact Name: CLIFF & KATHY RUSSELL
Telephone: 2134574917
Owner Name: SHELL OIL COMPANY
Owner Address: PO BOX 4848
Owner City,St,Zip: ANAHEIM, CA 92803

Tank Num: 001
Container Num: 1
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

C & K SELF SERVICE INC #1 (Continued) **U001561451**

Tank Num: 003
Container Num: 3
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

P69 **YANG'S SHELL** **SWEEPS UST** **S106934607**
South **1010 W MARTIN LUTHER KING BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.173 mi.
911 ft. **Site 4 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

SWEEPS UST:
Status: A
Comp Number: 6088
Number: 2
Board Of Equalization: Not reported
Ref Date: 09-24-93
Act Date: 02-24-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-006088-000001
Actv Date: 04-20-88
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: A
Comp Number: 6088
Number: 2
Board Of Equalization: Not reported
Ref Date: 09-24-93
Act Date: 02-24-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-006088-000002
Actv Date: 04-20-88
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

YANG'S SHELL (Continued) **S106934607**

Status:	A
Comp Number:	6088
Number:	2
Board Of Equalization:	Not reported
Ref Date:	09-24-93
Act Date:	02-24-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-006088-000003
Actv Date:	04-20-88
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

P70 **SHELL SERVICE STATION** **RCRA-SQG 1004678096**
South **1010 W MARTIN LUTHER KING JR** **FINDS CAR000105023**
1/8-1/4 **LOS ANGELES, CA 90037**
0.173 mi.
911 ft. **Site 5 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

RCRA-SQG:

Date form received by agency:	09/10/2001
Facility name:	SHELL SERVICE STATION
Facility address:	1010 W MARTIN LUTHER KING JR SAP 135555 LOS ANGELES, CA 90037
EPA ID:	CAR000105023
Mailing address:	P O BOX 2648 HOUSTON, TX 772522648
Contact:	SONDRA BIENVENU
Contact address:	P O BOX 2648 HOUSTON, TX 772522648
Contact country:	US
Contact telephone:	(713) 241-5036
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EQUILON ENTERPRISES L L C
Owner/operator address:	P O BOX 2648 HOUSTON, TX 77252
Owner/operator country:	Not reported
Owner/operator telephone:	(713) 241-5036
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

SHELL SERVICE STATION (Continued) **1004678096**

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110012231888

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Q71 **KENNEDY MARY MRS** **EDR Historical Cleaners** **1009191111**
North **3719 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.174 mi.
919 ft. **Site 1 of 2 in cluster Q**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:

Name: KENNEDY MARY MRS
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

O72 **MURRAY B C** **EDR Historical Cleaners** **1009187158**
South **4129 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.177 mi.
932 ft. **Site 2 of 3 in cluster O**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: MURRAY B C
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

P73 **AL SAL OIL CO. INC** **CA FID UST** **S101585441**
South **3996 S VERMONT AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.178 mi.
939 ft. **Site 6 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

CA FID UST:
Facility ID: 19023611
Regulated By: UTNKA
Regulated ID: 00005444
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2137784187
Mail To: Not reported
Mailing Address: 5121 SUNSET BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 610
Number: 9
Board Of Equalization: 44-011139
Ref Date: 01-15-93
Act Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000610-000001
Actv Date: 04-20-88
Capacity: 20000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 5

Status: A
Comp Number: 610
Number: 9
Board Of Equalization: 44-011139
Ref Date: 01-15-93

AL SAL OIL CO. INC (Continued) **S101585441**

Act Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-000610-000002
Actv Date:	04-20-88
Capacity:	20000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	A
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Ref Date:	01-15-93
Act Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-000610-000003
Actv Date:	04-20-88
Capacity:	20000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	A
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Ref Date:	01-15-93
Act Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-000610-000004
Actv Date:	04-20-88
Capacity:	20000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	A
Comp Number:	610
Number:	9
Board Of Equalization:	44-011139
Ref Date:	01-15-93
Act Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-000610-000005
Actv Date:	04-20-88

AL SAL OIL CO. INC (Continued) **S101585441**

Capacity: 20000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

P74 **KWIK #19** **HIST UST** **1000266511**
South **3996 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.178 mi.
939 ft. **Site 7 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

HIST UST:
Region: STATE
Facility ID: 00000005444
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: MONTRI
Telephone: 2136664471
Owner Name: AL-SAL OIL CO.
Owner Address: 5121 SUNSET BLVD.
Owner City,St,Zip: LOS ANGELES, CA 90027

Tank Num: 001
Container Num: 1
Year Installed: 1983
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1983
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1983
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: 1983
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches

KWIK #19 (Continued) **1000266511**

Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 5
Year Installed: 1983
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

P75 **YANG'S SHELL** **CA FID UST** **S101583375**
SSW **1010 MARTIN LUTHER KING BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.180 mi.
953 ft. **Site 8 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

CA FID UST:
Facility ID: 19003553
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132334155
Mail To: Not reported
Mailing Address: 1010 MARTIN LUTHER KING
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Q76 **PALLER MOSKOWITZ** **EDR Historical Cleaners** **1009187895**
North **3711 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.186 mi.
980 ft. **Site 2 of 2 in cluster Q**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: PALLER MOSKOWITZ
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

Name: YALE DYE WORKS
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

Name: PALLER MOSKOWITZ
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

P77 **SMITTY'S AUTO STATION** **CA FID UST** **S101587786**
WSW **931 W MARTIN LUTHER KING BLVD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90021**
0.186 mi.
981 ft. **Site 9 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

CA FID UST:

Facility ID:	19055998
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2137379141
Mail To:	Not reported
Mailing Address:	931 W MARTIN LUTHER KING BLV
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900210000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	5238
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

P78 **CHEVRON STATION 97757** **RCRA-SQG** **1000905192**
WSW **4004 S VERMONT** **FINDS** **CA0000368878**
1/8-1/4 **LOS ANGELES, CA 90037** **HIST CORTESE**
0.192 mi. **LUST**
1012 ft. **Site 10 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

RCRA-SQG:

Date form received by agency:	06/06/1994
Facility name:	CHEVRON STATION 97757
Facility address:	4004 S VERMONT LOS ANGELES, CA 90037
EPA ID:	CA0000368878
Mailing address:	P O BOX 2833 LA HABRA, CA 90632
Contact:	SUZANNE SISSUNG
Contact address:	P O BOX 2833

CHEVRON STATION 97757 (Continued) **1000905192**

LA HABRA, CA 90632
Contact country: US
Contact telephone: (310) 694-7452
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CHEVRON PRODUCTS CO
Owner/operator address: P O BOX 2833
LA HABRA, CA 90632
Owner/operator country: Not reported
Owner/operator telephone: (310) 694-7452
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002617696

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CORTESE:

CHEVRON STATION 97757 (Continued) **1000905192**

Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900370061

LUST:
Region: STATE
Global Id: T0603700909
Latitude: 34.010392
Longitude: -118.291185
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/26/1997
Lead Agency: LOS ANGELES, CITY OF
Case Worker: EL
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370061
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0603700909
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700909
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

LUST:
Global Id: T0603700909
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700909
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700909
Action Type: Other

CHEVRON STATION 97757 (Continued) **1000905192**

Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900370061	
Status:	Pollution Characterization	
Substance:	Diesel	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700909	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	SANTA BARBARA	
Enforcement Type:	Not reported	
Date Leak Discovered:	1/21/1988	
Date Leak First Reported:		1/21/1988
Date Leak Record Entered:	1/1/1980	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	1/21/1988	
Date Case Last Changed on Database:		1/21/1988
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Test	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	PATRON, SALVABOR	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		3289.337752046825515940231106
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		1/21/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	CHEVRON USA, INC	
RP Address:	PO BOX 2833, LA HABRA, CA 90632	
Program:	LUST	
Lat/Long:	34.0106033 / -1	
Local Agency Staff:	PEJ	

CHEVRON STATION 97757 (Continued) **1000905192**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: TESTER LOST 3 GALLONS OF DIESEL FUEL DURING TEST. THERE WAS NO APPARENT LOSS OF USED OIL. TANK WILL BE REMOVED.

P79 **SAL PATRON CHEVRON** **CA FID UST S101582846**
WSW **4004 S VERMONT AVE** **SWEEPS UST N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.192 mi.
1012 ft. **Site 11 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

CA FID UST:
Facility ID: 19001644
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132352888
Mail To: Not reported
Mailing Address: 4004 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900370000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 5952
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: 0

P80 **97757** **HIST UST** **U001561446**
WSW **4004 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.192 mi.
1012 ft. **Site 12 of 15 in cluster P**

Relative:
Higher

Actual:
171 ft.

HIST UST:

Region:	STATE
Facility ID:	00000063021
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	PATRON,SALVADOR
Telephone:	2132352288
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105
Tank Num:	001
Container Num:	1
Year Installed:	1965
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1965
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1965
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000170 unknown
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1965
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	0000100 unknown
Leak Detection:	Stock Inventor

R81 SSW 1/8-1/4 0.193 mi. 1018 ft. — **STOLEN BASE CLEANERS**
1015 W MARTIN LUTHER KING BLVD
LOS ANGELES, CA 90037
Site 1 of 3 in cluster R

Database(s): RCRA-SQG, FINDS, HIST CORTESE, LUST, SLIC
EDR ID Number: 1000280171
EPA ID Number: CAD981992696

Relative: Higher

Actual: 170 ft.

RCRA-SQG:

Date form received by agency:	09/03/1993
Facility name:	STOLEN BASE CLEANERS
Facility address:	1015 W MARTIN LUTHER KING BLVD LOS ANGELES, CA 90037
EPA ID:	CAD981992696
Contact:	BYUNG CHOE
Contact address:	1015 W MARTIN LUTHER KING BLVD LOS ANGELES, CA 90037
Contact country:	US
Contact telephone:	(213) 731-2987
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BYUNG WUK CHOE
Owner/operator address:	1015 W MARTIN LUTHER KING BLVD LOS ANGELES, CA 90037
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 731-2987
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

STOLEN BASE CLEANERS (Continued) **1000280171**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002769549

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900370034

LUST:
Region: STATE
Global Id: T0603700906
Latitude: 34.0109323
Longitude: -118.292049
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/01/1998
Lead Agency: LOS ANGELES, CITY OF
Case Worker: TP
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900370034
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: * Solvents
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0603700906
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

STOLEN BASE CLEANERS (Continued) **1000280171**

Global Id: T0603700906
Contact Type: Local Agency Caseworker
Contact Name: TERRENCE PALMER
Organization Name: LOS ANGELES, CITY OF
Address: 221 N FIGUEROA ST STE 1500
City: LOS ANGELES
Email: Not reported
Phone Number: 2134826520

LUST:
Global Id: T0603700906
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700906
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370034
Status: Remediation Plan
Substance: Solvents
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700906
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: VERMONT AVE
Enforcement Type: Not reported
Date Leak Discovered: 10/19/1995
Date Leak First Reported: 10/19/1995
Date Leak Record Entered: 10/9/1996
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 6/18/1996
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 3054.985896116898171603450646 4
Source of Cleanup Funding: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported

STOLEN BASE CLEANERS (Continued) **1000280171**

Pollution Characterization Began: 3/26/1996
Remediation Plan Submitted: 6/18/1996
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: DENMARST, LTD.
RP Address: 819 SANTEE ST, LOS ANGELES CA 90014
Program: LUST
Lat/Long: 34.0109323 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

SLIC REG 4:
Region: 4
Facility Status: No further action required
SLIC: 0647
Substance: VOCs
Staff: Ana Velos

P82 **SHUEY F W** **EDR Historical Auto Stations** **1009081625**
WSW **4001 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.193 mi.
1018 ft. **Site 13 of 15 in cluster P**

Relative: Higher

EDR Historical Auto Stations:
Name: SHUEY F W
Year: 1933
Actual: 171 ft. Type: GASOLINE AND OIL SERVICE STATIONS

P83 **VAN ARTHUR** **EDR Historical Cleaners** **1009188471**
WSW **4016 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.193 mi.
1019 ft. **Site 14 of 15 in cluster P**

Relative: Higher

EDR Historical Cleaners:
Name: VAN ARTHUR
Year: 1924
Actual: 171 ft. Type: CLOTHES CLEANERS PRESSERS AND DYERS

R84 **STOLEN BASE CLEANERS** **SLIC** **S106483780**
SSW **1015 MARTIN LUTHER KING JR BLVD W** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.194 mi.
1026 ft. **Site 2 of 3 in cluster R**

Relative:
Higher

Actual:
170 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	12/01/1998
Global Id:	SL184901473
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.01094
Longitude:	-118.256367
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	0647
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

S85 **ALEXANDER SCIENCE CENTER ELEM SCHOOL** **RCRA-LQG** **1011488148**
NE **3737 S FIGUEROA ST** **CAR000192930**
1/8-1/4 **LOS ANGELES, CA 90007**
0.195 mi.
1030 ft. **Site 1 of 2 in cluster S**

Relative:
Higher

Actual:
190 ft.

RCRA-LQG:

Date form received by agency:	06/09/2008
Facility name:	ALEXANDER SCIENCE CENTER ELEM SCHOOL
Facility address:	3737 S FIGUEROA ST LOS ANGELES, CA 90007
EPA ID:	CAR000192930
Mailing address:	333 S BEAUDRY AVE LAUSD OEHS 20TH FL LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE LAUSD OEHS 20TH FL LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than

ALEXANDER SCIENCE CENTER ELEM SCHOOL (Continued) **1011488148**

100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	ALEXANDER SCIENCE CENTER ELEM SCHOOL
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	06/04/2008
Owner/Op end date:	Not reported
Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DIST
Owner/operator address:	333 S BEAUDRY AVE
	LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	06/04/2008
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D008
Waste name:	LEAD

Violation Status: No violations found

T86 **GOSSARD G M** **EDR Historical Cleaners** **1009188366**
WSW **4034 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.195 mi.
1030 ft. **Site 1 of 6 in cluster T**

Relative:
Higher

Actual:
171 ft.

EDR Historical Cleaners:

Name:	GOSSARD G M
Year:	1924
Type:	CLOTHES CLEANERS PRESSERS AND DYERS

T87 **KIMKEE CHIN** **EDR Historical Cleaners** **1009190033**
WSW **4015 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.196 mi.
1033 ft. **Site 2 of 6 in cluster T**

Relative:
Higher

Actual:
171 ft.

EDR Historical Cleaners:
Name: KIMKEE CHIN
Year: 1929
Type: LAUNDRIES ORIENTAL

R88 **EXPO CENTER** **SWRCY** **S111239491**
SSW **1031 W MARTIN LUTHER KING JR BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.196 mi.
1037 ft. **Site 3 of 3 in cluster R**

Relative:
Higher

Actual:
170 ft.

SWRCY:
Facility Phone Number: (818) 342-0330
Whether The Facility Is Grandfathered: N
Effective Date: 08/03/2011
Rural: N
As Of: 09/07/2011
Party Number: 142361

T89 **GOLDSTEIN MAURICE** **EDR Historical Cleaners** **1009188361**
WSW **4031 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.199 mi.
1053 ft. **Site 3 of 6 in cluster T**

Relative:
Higher

Actual:
171 ft.

EDR Historical Cleaners:
Name: GOLDSTEIN MAURICE
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

O90 **DALTON J F** **EDR Historical Cleaners** **1009190662**
South **4155 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.201 mi.
1061 ft. **Site 3 of 3 in cluster O**

Relative:
Higher

Actual:
173 ft.

EDR Historical Cleaners:
Name: DALTON J F
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: DALTON J F
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

T91 **KUNITZ G F** **EDR Historical Cleaners** **1009188980**
WSW **4037 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.202 mi.
1065 ft. **Site 4 of 6 in cluster T**

Relative:
Higher

Actual:
171 ft.

EDR Historical Cleaners:

Name:	BERNSTEIN HARRY
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	WEISS ALBT
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS
Name:	KUNITZ G F
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS

S92 **GUTSCHLICHT GEO** **EDR Historical Auto Stations** **1009080970**
NNE **3742 S FLOWER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.202 mi.
1065 ft. **Site 2 of 2 in cluster S**

Relative:
Higher

Actual:
195 ft.

EDR Historical Auto Stations:

Name:	GUTSCHLICHT GEO
Year:	1942
Type:	AUTOMOBILE REPAIRING

T93 **GANSER T G MRS** **EDR Historical Cleaners** **1009190894**
WSW **4060 S VERMONT AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.203 mi.
1070 ft. **Site 5 of 6 in cluster T**

Relative:
Higher

Actual:
171 ft.

EDR Historical Cleaners:

Name:	GANSER T G MRS
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS

U94 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588313**
North **3730 MC CLINTOCK AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.208 mi.
1100 ft. **Site 1 of 3 in cluster U**

Relative:
Higher

Actual:
175 ft.

CA FID UST:

Facility ID:	19056559
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	3720 S MC CLINTOCK AVE
Mailing Address 2:	Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588313**

Mailing City,St,Zip: LOS ANGELES 900890000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 7990
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

U95 **SCHLOSSBERG LOUIS** **EDR Historical Cleaners** **1009188703**
North **3722 MC CLINTOCK AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.213 mi.
1123 ft. **Site 2 of 3 in cluster U**

Relative:
Higher

Actual:
175 ft.

EDR Historical Cleaners:
Name: SCHLOSSBERG LOUIS
Year: 1924
Type: CLOTHES CLEANERS PRESSERS AND DYERS

P96 **MARA E C** **EDR Historical Auto Stations** **1009077930**
WSW **1010 W 40TH PL** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.215 mi.
1133 ft. **Site 15 of 15 in cluster P**

Relative:
Higher

Actual:
170 ft.

EDR Historical Auto Stations:
Name: MARA E C
Year: 1933
Type: AUTOMOBILE REPAIRING

97
North
1/8-1/4
0.216 mi.
1140 ft.

UNIVERSITY OF SO CALIFORNIA
701 EXPOSITION BLVD
LOS ANGELES, CA 90089

CA FID UST **S101588311**
SWEEPS UST **N/A**

Relative:
Higher

Actual:
183 ft.

CA FID UST:

Facility ID:	19056557
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900890000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	A
Comp Number:	7986
Number:	1
Board Of Equalization:	Not reported
Ref Date:	08-30-93
Act Date:	08-30-93
Created Date:	02-29-88
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

T98
WSW
1/8-1/4
0.216 mi.
1143 ft.

GANSER TERESA MRS
4084 S VERMONT AVE
LOS ANGELES, CA

Site 6 of 6 in cluster T

EDR Historical Cleaners **1009188856**
N/A

Relative:
Higher

Actual:
170 ft.

EDR Historical Cleaners:

Name:	GOSSARD G M
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	GANSER TERESA MRS
Year:	1937
Type:	CLOTHES PRESSERS AND CLEANERS

V99 **GUILD PRINTING COMP INC** **RCRA-SQG** **1000278419**
ENE **3801 S GRAND AVE** **FINDS** **CAD981641285**
1/8-1/4 **LOS ANGELES, CA 90037** **HAZNET**
0.222 mi.
1173 ft. **Site 1 of 3 in cluster V**

Relative:
Higher

Actual:
197 ft.

RCRA-SQG:

Date form received by agency:	01/07/1987
Facility name:	GUILD PRINTING COMP INC
Facility address:	3801 S GRAND AVE LOS ANGELES, CA 90037
EPA ID:	CAD981641285
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3801 S GRAND AVE LOS ANGELES, CA 90037
Contact country:	US
Contact telephone:	(213) 746-1366
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BABICK RONALD D
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

GUILD PRINTING COMP INC (Continued) **1000278419**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002735773

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year: 2001
Gepaid: CAD981641285
Contact: EUGENE M WILLIAMS JR PRESIDENT
Telephone: 2137461366
Mailing Name: Not reported
Mailing Address: 3801 S GRAND AVE
Mailing City,St,Zip: LOS ANGELES, CA 900371311
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: San Bernardino
Waste Category: Unspecified organic liquid mixture
Disposal Method: H01
Tons: 0.45
Facility County: Not reported

Year: 2001
Gepaid: CAD981641285
Contact: EUGENE M WILLIAMS JR PRESIDENT
Telephone: 2137461366
Mailing Name: Not reported
Mailing Address: 3801 S GRAND AVE
Mailing City,St,Zip: LOS ANGELES, CA 900371311
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: 99
Waste Category: Unspecified organic liquid mixture

GUILD PRINTING COMP INC (Continued) **1000278419**

Disposal Method: R01
Tons: 0.22
Facility County: Not reported

Year: 2000
Gepaid: CAD981641285
Contact: CORPORATION
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3801 S GRAND AVE
Mailing City,St,Zip: LOS ANGELES, CA 900371311
Gen County: Los Angeles
TSD EPA ID: ILR000038067
TSD County: 99
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: .4586
Facility County: Los Angeles

Year: 1998
Gepaid: CAD981641285
Contact: CORPORATION
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3801 S GRAND AVE
Mailing City,St,Zip: LOS ANGELES, CA 900371311
Gen County: Los Angeles
TSD EPA ID: 0971255088
TSD County: 0
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: .2293
Facility County: Los Angeles

Year: 1998
Gepaid: CAD981641285
Contact: CORPORATION
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3801 S GRAND AVE
Mailing City,St,Zip: LOS ANGELES, CA 900371311
Gen County: Los Angeles
TSD EPA ID: CAT000613976
TSD County: Orange
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: H01
Tons: .0446
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

W100 **PENNY RECYCLING #2** **SWRCY** **S107137614**
South **4157 S FIGUEROA ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.225 mi.
1186 ft. **Site 1 of 2 in cluster W**

Relative:
Higher

Actual:
171 ft.

SWRCY:

Facility Phone Number:	(818) 288-1393
Whether The Facility Is Grandfathered:	N
Effective Date:	05/21/2004
Rural:	N
As Of:	09/07/2011
Party Number:	25208

X101 **QUONG WANG** **EDR Historical Cleaners** **1009190553**
South **4171 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.228 mi.
1203 ft. **Site 1 of 3 in cluster X**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name:	WONG QUONG
Year:	1933
Type:	LAUNDRIES CHINESE
Name:	QUONG WANG
Year:	1937
Type:	LAUNDRIES CHINESE

Y102 **AMOS YU** **CA FID UST** **S101587603**
SW **1100 W MARTIN LUTHER KING BLVD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90037**
0.229 mi.
1208 ft. **Site 1 of 2 in cluster Y**

Relative:
Higher

Actual:
168 ft.

CA FID UST:

Facility ID:	19055806
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1100 W MARTIN LUTHER KING BLV
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900370000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	A
Comp Number:	4471
Number:	2

AMOS YU (Continued) **S101587603**

Board Of Equalization:	Not reported
Ref Date:	02-25-93
Act Date:	05-03-94
Created Date:	02-29-88
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

Y103 **KING'S GAS STATION** **EDR Historical Auto Stations** **1009122592**
SW **1100 W MARTIN LUTHER KING JR BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90000**
0.229 mi.
1208 ft. **Site 2 of 2 in cluster Y**

Relative:
Higher

Actual:
168 ft.

EDR Historical Auto Stations:

Name:	KING'S GAS STATION
Year:	1994
Type:	Not reported

Z104 **COWAN GRAHAM** **EDR Historical Auto Stations** **1009077531**
NE **843 W 37TH PL** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.229 mi.
1208 ft. **Site 1 of 3 in cluster Z**

Relative:
Higher

Actual:
184 ft.

EDR Historical Auto Stations:

Name:	COWAN GRAHAM
Year:	1924
Type:	AUTOMOBILE REPAIRING

---

105 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588319**
NNE **3737 WATT WAY** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.230 mi.
1212 ft.

Relative:
Higher

Actual:
181 ft.

CA FID UST:

Facility ID:	19056565
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900890000
Contact:	Not reported
Contact Phone:	Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588319**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 7998
Number: 9
Board Of Equalization: Not reported
Ref Date: 07-29-93
Act Date: 07-29-93
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

V106 **RAINBOW GRAPHICS** **RCRA-SQG 1000307940**
ENE **386 W 38TH ST** **FINDS CAD082184789**
1/8-1/4 **LOS ANGELES, CA 90037**
0.231 mi.
1219 ft. **Site 2 of 3 in cluster V**

Relative:
Higher

Actual:
196 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: RAINBOW GRAPHICS
Facility address: 386 W 38TH ST
LOS ANGELES, CA 90037
EPA ID: CAD082184789
Mailing address: 386 W THIRTY EIGHTH STREET
LOS ANGELES, CA 90037
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: KEVIN MCCUE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported

RAINBOW GRAPHICS (Continued) **1000307940**

Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 07/02/1980
Facility name: RAINBOW GRAPHICS
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002660754

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

X107 **MOORE JOHN MC B** **EDR Historical Cleaners** **1009185201**
South **4175 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.231 mi.
1222 ft. **Site 2 of 3 in cluster X**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name:	DALTON J F
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	MOORE JOHN MC B
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS

Z108 **LOKER HYDROCARBON RESEARCHINS** **UST** **U003780882**
NE **837 W 37TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.232 mi.
1226 ft. **Site 2 of 3 in cluster Z**

Relative:
Higher

Actual:
184 ft.

UST:

Facility ID:	7209
Latitude:	34.01913
Longitude:	-118.28701

Z109 **LOKER HYDROCARBON RESEARCH INS** **SWEEPS UST** **S106928768**
NE **837 W 37TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.232 mi.
1226 ft. **Site 3 of 3 in cluster Z**

Relative:
Higher

Actual:
184 ft.

SWEEPS UST:

Status:	A
Comp Number:	8360
Number:	1
Board Of Equalization:	Not reported
Ref Date:	11-17-93
Act Date:	11-17-93
Created Date:	11-17-93
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

V110 **VLAMING JOHANNA** **EDR Historical Cleaners** **1009187324**
ENE **384 W 38TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.232 mi.
1226 ft. **Site 3 of 3 in cluster V**

Relative:
Higher

Actual:
196 ft.

EDR Historical Cleaners:

Name:	OLSON C C
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS
Name:	VLAMING JOHANNA
Year:	1933
Type:	CLOTHES PRESSERS AND CLEANERS

X111 **DALTON J F** **EDR Historical Cleaners** **1009187369**
South **4183 S HOOVER ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.239 mi.
1262 ft. **Site 3 of 3 in cluster X**

Relative:
Higher

Actual:
172 ft.

EDR Historical Cleaners:

Name:	DALTON J F
Year:	1924
Type:	CLOTHES CLEANERS PRESSERS AND DYERS

U112 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588312**
North **3650 S MC CLINTOCK AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.240 mi.
1267 ft. **Site 3 of 3 in cluster U**

Relative:
Higher

Actual:
175 ft.

CA FID UST:

Facility ID:	19056558
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	3650 S MC CLINTOCK AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900890000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	7989
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588312**

Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

113
SW
1/8-1/4
0.244 mi.
1287 ft.

DIANA CLEANERS **EDR Historical Cleaners** **1009185641**
4122 S VERMONT AVE **N/A**
LOS ANGELES, CA

Relative:
Higher

Actual:
169 ft.

EDR Historical Cleaners:

Name:	DIANA CLEANERS
Year:	1929
Type:	CLOTHES PRESSERS CLEANERS AND REPAIRERS

114
East
1/4-1/2
0.252 mi.
1333 ft.

OSCAR RECYCLING CENTER **SWRCY** **S110326874**
3928 S BROADWAY **N/A**
LOS ANGELES, CA 90037

Relative:
Higher

Actual:
182 ft.

SWRCY:

Facility Phone Number:	Not reported
Whether The Facility Is Grandfathered:	N
Effective Date:	07/31/2010
Rural:	N
As Of:	09/07/2011
Party Number:	64372

W115
South
1/4-1/2
0.262 mi.
1381 ft.

UNOCAL #1868 **HIST CORTESE** **S102523279**
4200 FIGUEROA ST **LUST** **N/A**
LOS ANGELES, CA 90037

Site 2 of 2 in cluster W

Relative:
Higher

Actual:
172 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900370070

LUST:

Region:	STATE
Global Id:	T0603700910
Latitude:	34.0073556
Longitude:	-118.2825588
Case Type:	LUST Cleanup Site

UNOCAL #1868 (Continued) **S102523279**

Status:	Completed - Case Closed
Status Date:	03/03/1993
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900370070
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0603700910
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700910
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

LUST:

Global Id:	T0603700910
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0603700910
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0603700910
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900370070
Status:	Case Closed
Substance:	Gasoline

UNOCAL #1868 (Continued) **S102523279**

Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700910	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	042ND ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	3/11/1992	
Date Leak First Reported:		3/11/1992
Date Leak Record Entered:	5/25/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	3/4/1992	
Date Case Last Changed on Database:		3/3/1993
Date the Case was Closed:		3/3/1993
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		6160.3125828842926894850830442
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		3/11/1992
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	UNOCAL CORP.	
RP Address:	17700 CASTLETON ST, SUITE 500, INDUSTRY, CA 91748	
Program:	LUST	
Lat/Long:	34.0073556 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	OLD CASE #022474	

116
NE
1/4-1/2
0.275 mi.
1454 ft.

SPYGLASS GOLF MAINTENANCE **HIST CORTESE** **1001832619**
FIGUEROA ST **N/A**
LOS ANGELES, CA 90071

Relative:
Higher

Actual:
193 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	3015

117
SE
1/4-1/2
0.355 mi.
1874 ft.

LEE & SONS (HAULING) **LUST** **S109117663**
4175 S BROADWAY AVE **N/A**
LOS ANGELES, CA 90015

Relative:
Higher

Actual:
175 ft.

LUST:

Region:	STATE
Global Id:	T0603744874
Latitude:	34.007643
Longitude:	-118.278739
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	03/25/2002
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	WR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	XS0002302
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Fuel Oxygenates
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0603744874
Contact Type:	Local Agency Caseworker
Contact Name:	TBD
Organization Name:	LOS ANGELES, CITY OF
Address:	200 N. MAIN ST. RM. 970
City:	LOS ANGELES
Email:	Not reported
Phone Number:	2139783722

Global Id:	T0603744874
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

LUST:

Global Id:	T0603744874
Action Type:	Other

LEE & SONS (HAULING) (Continued) **S109117663**

Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603744874
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

118
SSW
1/4-1/2
0.378 mi.
1998 ft.

NIK CONSTRUCTION CO. **LUST** **S109117684**
4251-4261 S VERMONT AVE **N/A**
LOS ANGELES, CA 90044

Relative:
Higher

Actual:
166 ft.

LUST:
Region: STATE
Global Id: T0603788088
Latitude: 34.006028
Longitude: -118.291553
Case Type: LUST Cleanup Site
Status: Open - Site Assessment
Status Date: 08/04/2000
Lead Agency: LOS ANGELES, CITY OF
Case Worker: TP
Local Agency: LOS ANGELES, CITY OF
RB Case Number: Not reported
LOC Case Number: XS0001650
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0603788088
Contact Type: Local Agency Caseworker
Contact Name: TERRENCE PALMER
Organization Name: LOS ANGELES, CITY OF
Address: 221 N FIGUEROA ST STE 1500
City: LOS ANGELES
Email: Not reported
Phone Number: 2134826520

Global Id: T0603788088
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0603788088
Action Type: Other
Date: 01/01/1950

NIK CONSTRUCTION CO. (Continued) **S109117684**

Action: Leak Discovery

Global Id: T0603788088
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

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119 **UNNAMED SITE** **HIST CORTESE** **S102439749**
North **VERMONT AVE** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90005**
0.401 mi.
2118 ft.

Relative:
Higher

Actual:
174 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 3008

Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 003008

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 003008
Status: Leak being confirmed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700037
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: 1ST
Enforcement Type: Not reported
Date Leak Discovered: 11/13/1986
Date Leak First Reported: 11/13/1986
Date Leak Record Entered: 8/10/1987
Date Confirmation Began: 11/13/1986
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 11/13/1986
Date the Case was Closed: Not reported
How Leak Discovered: Nuisance Conditions
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 4205.024326645934707393562858 2

UNNAMED SITE (Continued) **S102439749**

Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Program:	LUST
Lat/Long:	34.0589851 / -1
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

AA120 **MOBIL #11-LVC (FORMER)** **LUST** **S102433613**
WSW **1355 MARTIN LUTHER KING BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.460 mi.
2429 ft. **Site 1 of 2 in cluster AA**

Relative:
Lower

Actual:
160 ft.

LUST:

Region:	STATE
Global Id:	T0603700905
Latitude:	34.011173
Longitude:	-118.299838
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/31/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900370025
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0603700905
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG

MOBIL #11-LVC (FORMER) (Continued) **S102433613**

Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700905
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

LUST:
Global Id: T0603700905
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700905
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370025
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700905
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: NORMANDIE
Enforcement Type: Not reported
Date Leak Discovered: 9/8/1992
Date Leak First Reported: 8/1/1994
Date Leak Record Entered: 1/19/1996
Date Confirmation Began: 10/5/1992
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 3/31/1997
Date the Case was Closed: 3/31/1997
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: OLD CASE #960105-40

MOBIL #11-LVC (FORMER) (Continued) **S102433613**

Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 1898.588673040944277808601982 5
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 4/15/1994
Pollution Characterization Began: 11/30/1995
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: 3/1/1996
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: MOBIL BUSINESS RESOURCES CORP
RP Address: 3700 W 190TH ST, TORRANCE CA 90509
Program: LUST
Lat/Long: 34.0109452 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

SWEEPS UST:
Status: Not reported
Comp Number: 2054
Number: Not reported
Board Of Equalization: 44-000400
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-002054-000001
Actv Date: Not reported
Capacity: 280
Tank Use: OIL
Stg: WASTE
Content: WASTE OIL
Number Of Tanks: 4

Status: Not reported
Comp Number: 2054
Number: Not reported
Board Of Equalization: 44-000400
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported

MOBIL #11-LVC (FORMER) (Continued) **S102433613**

Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-002054-000002
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	2054
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-002054-000003
Actv Date:	Not reported
Capacity:	8000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	2054
Number:	Not reported
Board Of Equalization:	44-000400
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-002054-000004
Actv Date:	Not reported
Capacity:	6000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

AA121 **MOBIL #11-LVC (FORMER)** **HIST CORTESE** **S104576500**
WSW **1355 MARTIN LUTHER KING** **HAZNET** **N/A**
1/4-1/2 **LOS ANGELES, CA 90037**
0.472 mi.
2491 ft. **Site 2 of 2 in cluster AA**

Relative:
Lower

Actual:
159 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900370025

HAZNET:

Year:	2002

MOBIL #11-LVC (FORMER) (Continued) **S104576500**

Gepaid:	CAL000050601
Contact:	MELANIE PAVLAS-WYNNS
Telephone:	5124516334
Mailing Name:	Not reported
Mailing Address:	PO BOX 142667
Mailing City,St,Zip:	AUSTIN, TX 787142667
Gen County:	Los Angeles
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Unspecified aqueous solution
Disposal Method:	T01
Tons:	1.83
Facility County:	Not reported

Year:	1999
Gepaid:	CAL000050601
Contact:	MOBIL
Telephone:	7038465734
Mailing Name:	Not reported
Mailing Address:	PO BOX 142667
Mailing City,St,Zip:	AUSTIN, TX 787142667
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Not reported
Tons:	0.0583
Facility County:	Los Angeles

122
South
1/4-1/2
0.486 mi.
2567 ft.

LA CITY FIRE STATION #46 **LUST** **S104773309**
4370 HOOVER ST S **N/A**
LOS ANGELES, CA 90037

Relative:
Higher

Actual:
168 ft.

LUST:

Region:	STATE
Global Id:	T0603793041
Latitude:	34.0040783
Longitude:	-118.2871332
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/06/2000
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	NR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900370098
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LUST:

Global Id:	T0603793041
Contact Type:	Local Agency Caseworker

LA CITY FIRE STATION #46 (Continued) **S104773309**

Contact Name: NEAL REITZELL
Organization Name: LOS ANGELES, CITY OF
Address: 221 N FIGUEROA ST, STE 1500
City: LOS ANGELES
Email: neil.reitzell@lacity.org
Phone Number: 2134826528

Global Id: T0603793041
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0603793041
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603793041
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900370098
Status: Leak being confirmed
Substance: 1
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603793041
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: 10/12/1999
Date Leak First Reported: 10/7/1999
Date Leak Record Entered: Not reported
Date Confirmation Began: 10/7/1999
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 10/7/1999
Date the Case was Closed: Not reported
How Leak Discovered: Repair Tank
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK

LA CITY FIRE STATION #46 (Continued) **S104773309**

Operator:	LA CITY F.D.	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5803.400032542575590286089079 7
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	CITY OF LOS ANGELES	
RP Address:	419 S. SPRING ST., 12TH FL., LOS ANGELES, CA 90013	
Program:	LUST	
Lat/Long:	34.004364 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

---

123 East 1/4-1/2 0.499 mi. 2637 ft.

CALIFORNIA FASHION INDUSTRIES **SCH S105628652**
MARTIN LUTHER KING BLVD/S. MAIN STREET **ENVIROSTOR N/A**
LOS ANGELES, CA 90037

Relative: Higher

Actual: 186 ft.

SCH:

Facility ID:	19890014
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	Not reported
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304095
Assembly:	48
Senate:	26
Special Program Status:	Not reported
Status:	Certified
Status Date:	09/20/2002

CALIFORNIA FASHION INDUSTRIES (Continued) **S105628652**

Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN
Potential COC:	30001, 30013
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CALIFORNIA FASHION INDUSTRIES
Alias Type:	Alternate Name
Alias Name:	LA USD-CAL FASHION INDUSTRIES/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033617325
Alias Type:	EPA (FRS #)
Alias Name:	304095
Alias Type:	Project Code (Site Code)
Alias Name:	19890014
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	12/17/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/20/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	04/26/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/17/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	09/21/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Public Participation
Completed Date:	04/03/2001
Comments:	Not reported

CALIFORNIA FASHION INDUSTRIES (Continued) **S105628652**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 07/27/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 09/05/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Cleanup
Site Type Detailed: School
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19890014
Site Code: 304095
Assembly: 48
Senate: 26
Special Program: Not reported
Status: Certified
Status Date: 09/20/2002
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: 30001, 30013
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CALIFORNIA FASHION INDUSTRIES
Alias Type: Alternate Name

CALIFORNIA FASHION INDUSTRIES (Continued) **S105628652**

Alias Name: LA USD-CAL FASHION INDUSTRIES/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033617325
Alias Type: EPA (FRS #)
Alias Name: 304095
Alias Type: Project Code (Site Code)
Alias Name: 19890014
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 12/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/26/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 12/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 09/21/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 04/03/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 07/27/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 09/05/2001

CALIFORNIA FASHION INDUSTRIES (Continued) **S105628652**

Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AB124 **ALPHA POLISHING** **ENVIROSTOR** **S110493615**
South **951 W. VERNON AVENUE** **N/A**
1/2-1 **LOS ANGELES, CA 90037**
0.516 mi.
2724 ft. **Site 1 of 2 in cluster AB**

Relative:
Higher

Actual:
164 ft.

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	0.32
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	JERMAINE NORA
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Facility ID:	71002760
Site Code:	300856
Assembly:	48
Senate:	26
Special Program:	Not reported
Status:	Active
Status Date:	12/08/1997
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.00369
Longitude:	-118.2900
APN:	NONE SPECIFIED
Past Use:	DEGREASING FACILITY, FUEL TERMINALS
Potential COC:	30001, 30022, 30027, 30108, 30153, 30407
Confirmed COC:	30001,30022,30108,30153,30407,30027
Potential Description:	SOIL, SV
Alias Name:	General Plating
Alias Type:	Alternate Name
Alias Name:	General Plating Company
Alias Type:	Alternate Name
Alias Name:	CAD981377971
Alias Type:	EPA Identification Number
Alias Name:	300856

ALPHA POLISHING (Continued) **S110493615**

Alias Type: Project Code (Site Code)
Alias Name: 71002760
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/30/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/26/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Proposal Approval
Completed Date: 03/08/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/27/2011
Comments: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/27/2011
Comments: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/16/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/30/2006
Comments: Not reported

ALPHA POLISHING (Continued) **S110493615**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 12/29/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 12/08/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 11/24/2010
Comments: Second collection letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 03/08/2011
Comments: Project Manager: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 10/25/2010
Comments: First reminder letter sent for unpaid invoices.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 06/26/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Selection and Statement of Basis
Completed Date: 03/08/2011
Comments: Project Manager: Nora

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/02/2004
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

ALPHA POLISHING (Continued) **S110493615**

Future Due Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Land Use Restriction
Schedule Due Date:	04/06/2012
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Corrective Action Completion Determination
Schedule Due Date:	04/06/2012
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Acknowledgement of Satisfaction
Schedule Due Date:	04/06/2012
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Remedial Action Completion Report
Schedule Due Date:	02/14/2012
Schedule Revised Date:	Not reported

AB125 **GENERAL PLATING COMPANY** **HIST UST** **1000213804**
South **951 W VERNON AVE** **SWEEPS UST** **N/A**
1/2-1 **LOS ANGELES, CA 90037** **LA Co. Site Mitigation**
0.516 mi. **HAZNET**
2724 ft. **Site 2 of 2 in cluster AB** **EMI**
ENVIROSTOR

Relative:
Higher

Actual:
164 ft.

HIST UST:

Region:	STATE
Facility ID:	00000050994
Facility Type:	Other
Other Type:	PLATING
Total Tanks:	0002
Contact Name:	DOUGLAS C. SMITH
Telephone:	2132349201
Owner Name:	C.W. SMITH FAMILY INC. DBA GEN
Owner Address:	951 WEST VERNON AVENUE
Owner City,St,Zip:	LOS ANGELES, CA 90037
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000120
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	None
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00000360
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	None

GENERAL PLATING COMPANY (Continued) **1000213804**

SWEEPS UST:
Status: Not reported
Comp Number: 5968
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: 0

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010947
Case ID: RO0010947
Abated: Yes
Assigned To: TK
Entered Date: 5/11/2004
Abated Date: 1/1/1989

HAZNET:
Year: 2006
Gepaid: CAD981377971
Contact: ALAN OLICK PRESIDENT
Telephone: 3232637593
Mailing Name: Not reported
Mailing Address: 1313 MIRASOL ST
Mailing City,St,Zip: LOS ANGELES, CA 900230000
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Not reported
Tons: 0.4
Facility County: Los Angeles

Year: 2005
Gepaid: CAD981377971
Contact: ALAN OLICK-OWNER
Telephone: 3232349201
Mailing Name: Not reported
Mailing Address: PO BOX 7626
Mailing City,St,Zip: LOS ANGELES, CA 900070626
Gen County: Los Angeles
TSD EPA ID: AZD980735500
TSD County: 99
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: R01
Tons: 3.37

GENERAL PLATING COMPANY (Continued) **1000213804**

Facility County: Not reported

Year: 2004
Gepaid: CAD981377971
Contact: ALAN OLICK-OWNER
Telephone: 3232349201
Mailing Name: Not reported
Mailing Address: PO BOX 7626
Mailing City,St,Zip: LOS ANGELES, CA 900070626
Gen County: Los Angeles
TSD EPA ID: AZD980735500
TSD County: 99
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: R01
Tons: 3.37
Facility County: Not reported

Year: 2003
Gepaid: CAD981377971
Contact: ALAN OLICK-OWNER
Telephone: 3232349201
Mailing Name: Not reported
Mailing Address: PO BOX 7626
Mailing City,St,Zip: LOS ANGELES, CA 900070626
Gen County: Los Angeles
TSD EPA ID: CAT000646117
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: T01
Tons: 5.4
Facility County: Los Angeles

Year: 2003
Gepaid: CAD981377971
Contact: ALAN OLICK-OWNER
Telephone: 3232349201
Mailing Name: Not reported
Mailing Address: PO BOX 7626
Mailing City,St,Zip: LOS ANGELES, CA 900070626
Gen County: Los Angeles
TSD EPA ID: AZD980735500
TSD County: Los Angeles
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: R01
Tons: 5.89
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
42 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:
Year: 2002
County Code: 19
Air Basin: SC
Facility ID: 80106
Air District Name: SC
SIC Code: 3471

GENERAL PLATING COMPANY (Continued) **1000213804**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	19
Air Basin:	SC
Facility ID:	80106
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	19
Air Basin:	SC
Facility ID:	80106
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.01739
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.00006394
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	19
Air Basin:	SC
Facility ID:	80106
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.25525
Reactive Organic Gases Tons/Yr:	.252409525
Carbon Monoxide Emissions Tons/Yr:	0

GENERAL PLATING COMPANY (Continued) **1000213804**

NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .00062107
Part. Matter 10 Micrometers & Smllr Tons/Yr: .0001180033

ENVIROSTOR:
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Chatsworth
Facility ID: 19340667
Site Code: Not reported
Assembly: 48
Senate: 26
Special Program: Not reported
Status: Refer: Other Agency
Status Date: 08/31/1995
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.00395
Longitude: -118.2902
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: 10037, 10197, 10198, 30153, 30407
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD981377971
Alias Type: EPA Identification Number
Alias Name: 19340667
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 01/27/1988
Comments: ENFORCEMENT(OTHER) LOS ANGELES COUNTY-DHS PRELIM ASSESS DONE DHS RECOMMENDS SI MEDIUM ,CONTAMINATED SOIL HAS NOT BEEN REMOVED SITE HAS ALSO BEEN REFERED TO LOS ANGELES CO. HEALTH DEPT.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/07/1986
Comments: SITE SCREENING DONE PA RATIONALE: THERE ARE INDICATIONS OF THE PRESENCE AND POTENTIAL RELEASE OF HAZARDOUS WASTES; MORE INFO IS NEEDED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery

GENERAL PLATING COMPANY (Continued) **1000213804**

Completed Date:	02/11/1983
Comments:	FACILITY IDENTIFIED L. A. CHAM OF COMM BUS DIR 1969
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

126
NNW
1/2-1
0.599 mi.
3162 ft.

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3 **SCH** **S107736663**
JEFFERSON BOULEVARD/SOUTH CATALINA STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90007

Relative:
Higher

Actual:
176 ft.

SCH:

Facility ID:	19880011
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.7
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304326
Assembly:	48
Senate:	26
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	08/25/2003
Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	, 30032, 30136, 30191, 30577, 30003, 30550, 30022, 30593, 30272, 30115, 30578, 30027
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAUSD-MANUAL ARTS ES # 3
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW ELEM. SCHOOL #3 (PROP)
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW ELEMENTARY SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3 (Continued) **S107736663**

Alias Type: Alternate Name
Alias Name: 304326
Alias Type: Project Code (Site Code)
Alias Name: 19880011
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/18/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 08/08/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/01/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/31/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/25/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 2.7

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3 (Continued) **S107736663**

NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19880011
Site Code: 304326
Assembly: 48
Senate: 26
Special Program: Not reported
Status: No Further Action
Status Date: 08/25/2003
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: , 30032, 30136, 30191, 30577, 30003, 30550, 30022, 30593, 30272, 30115, 30578, 30027
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: LAUSD-MANUAL ARTS ES # 3
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW ELEM. SCHOOL #3 (PROP)
Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW ELEMENTARY SCHOOL #3
Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3
Alias Type: Alternate Name
Alias Name: 304326
Alias Type: Project Code (Site Code)
Alias Name: 19880011
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/18/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 08/08/2001
Comments: Not reported

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 3 (Continued) **S107736663**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	07/01/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	10/31/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/25/2003
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

127
SW
1/2-1
0.672 mi.
3548 ft.

BARTON-JONES CHEMICAL CO.
1207 W. VERNON AVE
LOS ANGELES, CA 90037

ENVIROSTOR **S101480626**
N/A

Relative:
Lower

Actual:
158 ft.

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	0
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* MMONROY
Division Branch:	Cleanup Chatsworth
Facility ID:	19280552
Site Code:	Not reported
Assembly:	48
Senate:	26
Special Program:	Not reported
Status:	No Further Action
Status Date:	11/07/1994
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.04865
Longitude:	-118.2921
APN:	5078028023
Past Use:	NONE

BARTON-JONES CHEMICAL CO. (Continued) **S101480626**

Potential COC: NONE SPECIFIED,31000
Confirmed COC: 31000
Potential Description: NMA
Alias Name: 5078028023
Alias Type: APN
Alias Name: CAD981373780
Alias Type: EPA Identification Number
Alias Name: 19280552
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/07/1994
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/08/1988
Comments: SITE SCREENING DONE PAL BASED ON LACK OF INFO

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 12/01/1985
Comments: VERY LITTLE INFO.MORE DETAIL INVEST NEED POSSIBLE CONTAMINATED SOIL DUE TO OPER. SUBMIT TO EPA PRELIM ASSESS DONE CERCLA 104

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 07/21/1982
Comments: FACILITY IDENTIFIED ID 1947 PAC. TELE. DIR. CHEMICALS.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

128
SSW
1/2-1
0.674 mi.
3558 ft.

MANUAL ARTS NEW PRIMARY CENTER NO. 2 **SCH** **S105628500**
46TH STREET/SOUTH VERMONT AVENUE **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90037

Relative:
Lower

Actual:
160 ft.

SCH:

Facility ID: 19390059
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED

MANUAL ARTS NEW PRIMARY CENTER NO. 2 (Continued) **S105628500**

Acres:	1.67
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304362
Assembly:	48
Senate:	26
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	11/19/2003
Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - OTHER
Potential COC:	, 30153, 30022, 30024, 30593, 30550
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAUSD-MANUAL ARTS NEW PRIMARY CTR # 2
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW PRIMARY CENTER #2 (PROP)
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW PRIMARY CENTER NO. 2
Alias Type:	Alternate Name
Alias Name:	304362
Alias Type:	Project Code (Site Code)
Alias Name:	19390059
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	03/06/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	10/28/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	12/15/2005
Comments:	INC
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

MANUAL ARTS NEW PRIMARY CENTER NO. 2 (Continued) **S105628500**

Completed Date: 11/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/21/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.67
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19390059
Site Code: 304362
Assembly: 48
Senate: 26
Special Program: Not reported
Status: No Further Action
Status Date: 11/19/2003
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: , 30153, 30022, 30024, 30593, 30550
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: LAUSD-MANUAL ARTS NEW PRIMARY CTR # 2
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW PRIMARY CENTER #2 (PROP)

MANUAL ARTS NEW PRIMARY CENTER NO. 2 (Continued) **S105628500**

Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW PRIMARY CENTER NO. 2
Alias Type: Alternate Name
Alias Name: 304362
Alias Type: Project Code (Site Code)
Alias Name: 19390059
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/06/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 10/28/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/15/2005
Comments: INC

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/21/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

129 East 1/2-1 0.688 mi. 3634 ft.

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND)
MAPLE AVENUE/36TH STREET/36TH PLACE
LOS ANGELES, CA 90011

SCH ENVIROSTOR

S107736508 N/A

Relative: Higher

Actual: 199 ft.

SCH:

Facility ID:	19880055
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304163
Assembly:	46
Senate:	22
Special Program Status:	Not reported
Status:	Inactive - Action Required
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.01559
Longitude:	-118.2698
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	, 30001
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	JEFFERSON NEW PRIMARY CENTER #6
Alias Type:	Alternate Name
Alias Name:	LAUSD-JEFFERSON NEW PRIMARY CENTER #6
Alias Type:	Alternate Name
Alias Name:	LAUSD-JEFFERSON NEW PRIMARY CNTR #6/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304031
Alias Type:	Project Code (Site Code)
Alias Name:	304163
Alias Type:	Project Code (Site Code)
Alias Name:	19880055
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/04/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND) (Continued) **S107736508**

Completed Date:	01/21/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	The project was completed in September 2004.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
Facility ID:	19880032
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Mitigation And Brownfield Reuse Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304267
Assembly:	46
Senate:	22
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	10/10/2003
Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	, 30550
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	JEFFERSON NEW PRIMARY CENTER #6
Alias Type:	Alternate Name
Alias Name:	JEFFERSON NEW PRIMARY CENTER #6 (2ND)
Alias Type:	Alternate Name
Alias Name:	LAUSD-JEFFERSON NEW PC #6 (2ND)
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304267
Alias Type:	Project Code (Site Code)

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND) (Continued) **S107736508**

Alias Name: 19880032
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/10/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/15/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/04/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/28/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19880055
Site Code: 304163
Assembly: 46

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND) (Continued) **S107736508**

Senate: 22
Special Program: Not reported
Status: Inactive - Action Required
Status Date: 08/20/2002
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.01559
Longitude: -118.2698
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: , 30001
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: JEFFERSON NEW PRIMARY CENTER #6
Alias Type: Alternate Name
Alias Name: LAUSD-JEFFERSON NEW PRIMARY CENTER #6
Alias Type: Alternate Name
Alias Name: LAUSD-JEFFERSON NEW PRIMARY CNTR #6/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304031
Alias Type: Project Code (Site Code)
Alias Name: 304163
Alias Type: Project Code (Site Code)
Alias Name: 19880055
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/04/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/21/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: The project was completed in September 2004.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND) (Continued) **S107736508**

Site Type: School Investigation
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19880032
Site Code: 304267
Assembly: 46
Senate: 22
Special Program: Not reported
Status: No Further Action
Status Date: 10/10/2003
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: , 30550
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: JEFFERSON NEW PRIMARY CENTER #6
Alias Type: Alternate Name
Alias Name: JEFFERSON NEW PRIMARY CENTER #6 (2ND)
Alias Type: Alternate Name
Alias Name: LAUSD-JEFFERSON NEW PC #6 (2ND)
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304267
Alias Type: Project Code (Site Code)
Alias Name: 19880032
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/10/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/15/2002
Comments: Not reported

JEFFERSON NEW PRIMARY CENTER NO. 6 (2ND) (Continued) **S107736508**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	05/04/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	07/28/2003
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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130 **HERMETIC ASSOCIATED** **ENVIROSTOR** **1000298756**
ENE **150 EAST JEFFERSON BOULEVARD** **N/A**
1/2-1 **LOS ANGELES, CA 90011**
0.723 mi.
3815 ft.

Relative:
Higher

Actual:
203 ft.

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Chatsworth
Facility ID:	19350289
Site Code:	Not reported
Assembly:	46
Senate:	22
Special Program:	* CERC2
Status:	Refer: Other Agency
Status Date:	06/01/1995
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.01759
Longitude:	-118.2710
APN:	5120007025
Past Use:	NONE SPECIFIED
Potential COC:	10002, 10003, 10060, 10199
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	5120007025
Alias Type:	APN
Alias Name:	CAD982359861

HERMETIC ASSOCIATED (Continued) **1000298756**

Alias Type: EPA Identification Number
Alias Name: 19350289
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/27/1988
Comments: PRELIM ASSESS DONE 4 SMALL FIRES BTW 1979-1985. SITE HAS SITE HAS SPRAY BOOTH AND DUST COLLECTION SITE REFERED TO LOS ANGELES CO. HLTH.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/07/1986
Comments: SITE SCREENING DONE PA RATIONALE: ADDITIONAL INFO NEEDED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/06/1983
Comments: FACILITY IDENTIFIED LA CHAM OF COMM BUS DIR 1971-72 MANUFACTURER OF COMPRESSORS

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 20 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES	1000206605	BREEN LABORATORIES	8931 S VERMONT AVE	90044	HIST UST,HMS LOS ANGELES,LUST SAN MATEO
LOS ANGELES	1003878303	PACIFIC PIONEER PLASTIC CO	1642 E 41ST	90011	CERCLIS-NFRAP
LOS ANGELES	1006824429	LA CO., DPSS/SPACE SERVICES SE	2707 S GRAND AVE & 247 W 28TH	90007	FINDS,EMI
LOS ANGELES	1012175574	UNIFIED GROCERS, INC - BAKERY FACI	457 EAST MARTIN LUTHER KING	90011	RCRA-LQG
LOS ANGELES	1014386910	USC/NORRIS CANCER HOSPITAL	1441 EAST LAKE AVENUE	90089	RCRA-LQG
LOS ANGELES	2000523717	BERTH 203, LA HARBOR	BERTH 203, LA HARBOR	0	ERNS
LOS ANGELES	2002591907	LA 180	LA 180	0	ERNS
LOS ANGELES	2002631398	LA BERTH 198	LA BERTH 198	0	ERNS
LOS ANGELES	2003706789	LA/LB HARBOR	LA/LB HARBOR		ERNS
LOS ANGELES	2005632213	BERTH LA 240	BERTH LA 240		ERNS
	2007307088	LA DOCK 189	LA DOCK 189		ERNS
LOS ANGELES	2008899126	WESTERNMOST FINGER OF THE PORT OF	WESTERNMOST FINGER OF THE PORT		ERNS
LOS ANGELES	2008905392	LA BERTH 73	LA BERTH 73		ERNS
LOS ANGELES	2009899126	WESTERNMOST FINGER OF THE PORT OF	WESTERNMOST FINGER OF THE PORT		ERNS
LOS ANGELES	2009905392	LA BERTH 73	LA BERTH 73		ERNS
LOS ANGELES	2010961552	LA HARBOR	LA HARBOR		ERNS
LOS ANGELES	2011968548	THE PARCEL EAST OF 5537 ALHAMBRA A	THE PARCEL EAST OF 5537 ALHAMB		ERNS
WILMINGTON	2011972503	LA BERTH 168 / SHELL TERMINAL 200	LA BERTH 168 / SHELL TERMINAL		ERNS
LOS ANGELES	92278072	LA TOFC RAMP YARD	LA TOFC RAMP YARD		ERNS
LOS ANGELES	S110986828	LA CO B&H WILL RODGERS BEACH	17940 W PACIFIC COAST HWY		HMS LOS ANGELES

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 10/12/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010
Date Data Arrived at EDR: 01/11/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/14/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/09/2011
Date Data Arrived at EDR: 03/15/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 91

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/07/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/07/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 11/10/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/10/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/01/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/16/2011
Date Data Arrived at EDR: 06/02/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 103
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 39

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 06/01/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 13

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 18

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/11/2011
Date Data Arrived at EDR: 08/12/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 32

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/07/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/28/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/08/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/07/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 08/11/2011
Date Made Active in Reports: 09/09/2011
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8
Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 12/05/2012
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31
Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 09/19/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/13/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/04/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/03/2011
Date Made Active in Reports: 06/15/2011
Number of Days to Update: 43

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 11/10/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 33

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 11/10/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/10/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/05/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 94

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/01/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 41

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/31/2011
Date Data Arrived at EDR: 09/14/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 15

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/14/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/07/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 12/02/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/27/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/19/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/13/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/13/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/30/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 21

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 11/30/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 07/21/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/30/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/19/2011
Date Made Active in Reports: 08/16/2011
Number of Days to Update: 28

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/30/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/08/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/08/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/21/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/29/2011
Date Data Arrived at EDR: 11/30/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 13
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339
Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/20/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/09/2011
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2011
Date Data Arrived at EDR: 10/11/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/28/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 14

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/28/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 24

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/24/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/22/2011
Number of Days to Update: 28

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/25/2011
Next Scheduled EDR Contact: 11/07/2011
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/24/2011
Next Scheduled EDR Contact: 02/06/2012
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 26
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/17/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 10/25/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 20
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/05/2012
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/17/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/18/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 25

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/18/2011
Number of Days to Update: 35

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 18

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2011
Date Data Arrived at EDR: 10/21/2011
Date Made Active in Reports: 11/14/2011
Number of Days to Update: 24
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/26/2012
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/12/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 27
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 10/14/2011
Date Made Active in Reports: 11/08/2011
Number of Days to Update: 25
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/07/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/26/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 09/19/2011
Number of Days to Update: 19
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/16/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 39
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/27/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/17/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 12/05/2011
Number of Days to Update: 6
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/12/2012
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/22/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 32
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 09/06/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 32
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/25/2011
Number of Days to Update: 27
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/20/2011
Date Data Arrived at EDR: 09/28/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 21
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/06/2011
Date Made Active in Reports: 05/12/2011
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 10/03/2011
Next Scheduled EDR Contact: 01/16/2012
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 36

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 10/27/2011
Date Data Arrived at EDR: 11/23/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 20

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/14/2011
Date Data Arrived at EDR: 09/15/2011
Date Made Active in Reports: 10/24/2011
Number of Days to Update: 39

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/21/2011
Next Scheduled EDR Contact: 01/23/2012
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/17/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 10/27/2011
Date Data Arrived at EDR: 11/07/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 36

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/30/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/19/2011
Number of Days to Update: 29
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/20/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 24
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16
Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/18/2011
Next Scheduled EDR Contact: 01/30/2012
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 38
Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

USC/LA MEMORIAL COLISEUM
3911 SOUTH FIGUEROA STREET
LOS ANGELES, CA 90037

TARGET PROPERTY COORDINATES

Latitude (North):	34.01370 - 34° 0' 49.3''
Longitude (West):	118.2876 - 118° 17' 15.4''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	381105.6
UTM Y (Meters):	3764228.0
Elevation:	162 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-A3 HOLLYWOOD, CA
Most Recent Revision:	1994
South Map:	33118-H3 INGLEWOOD, CA
Most Recent Revision:	1981

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

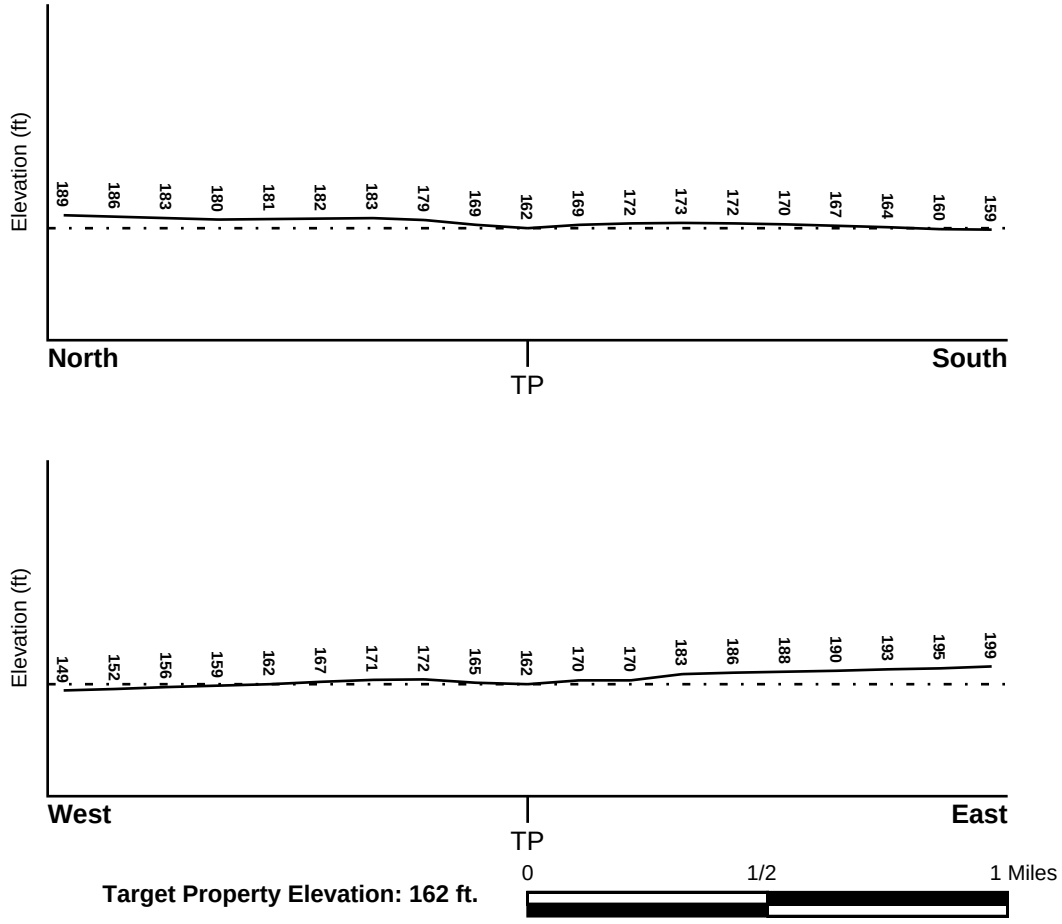
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HOLLYWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Surficial Soil Types:
loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Shallow Soil Types:
fine sandy loam
gravelly - loam
sand
silty clay

Deeper Soil Types:
stratified
clay loam
silty clay loam
gravelly - sandy loam
coarse sand
sand
weathered bedrock
very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	2997	1/2 - 1 Mile WNW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG70000028366	1/2 - 1 Mile ENE
2	CAOG70000028721	1/2 - 1 Mile NNE
3	CAOG70000028769	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 3223843.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: USC/LA Memorial Coliseum	CLIENT: Converse Consultants
ADDRESS: 3911 South Figueroa Street Los Angeles CA 90037	CONTACT: Lisa Walldez
LAT/LONG: 34.0137 / 118.2876	INQUIRY #: 3223843.2s DATE: December 13, 2011 1:41 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database	EDR ID Number
CA WELLS	**2997**

1
WNW
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/15W-11C02 S	User ID:	4TH
FRDS Number:	1910146009	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	340058.0 1181800.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	CHARNOCK WELL 17 - DESTROYED		
System Number:	1910146		
System Name:	SANTA MONICA-CITY, WATER DIVISION		
Organization That Operates System:			
	1212 FIFTH ST., 3RD FLOOR		
	SANTA MONICA, CA 90401		
Pop Served:	86905	Connections:	15905
Area Served:	SANTA MONICA		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
ENE **OIL_GAS** **CAOG70000028366**
1/2 - 1 Mile

Apinumber:	03705994	District:	1
Geodistric:	0	Statuscode:	007
Gissourcec:	Not Reported	Wellsymbol:	DH
Confidenti:	Not Reported	Countyname:	Los Angeles
Leasename:	Sanborn Community 1-R D		
Wellnumber:	3		
Operatorna:	Chevron U.S.A. Inc.		
Fieldname:	Any Field	Areaname:	Any Area
Section:	7	Township:	2S
Range:	13W	Basemeridi:	SB
Lat83:	34.016478		
Long83:	-118.277801		
Site id:	CAOG70000028366		

2
NNE **OIL_GAS** **CAOG70000028721**
1/2 - 1 Mile

Apinumber:	03706320	District:	1
Geodistric:	0	Statuscode:	007
Gissourcec:	Not Reported	Wellsymbol:	DH
Confidenti:	Not Reported	Countyname:	Los Angeles
Leasename:	Dana Corehole		
Wellnumber:	2		
Operatorna:	Chevron U.S.A. Inc.		
Fieldname:	Any Field	Areaname:	Any Area
Section:	6	Township:	2S
Range:	13W	Basemeridi:	SB
Lat83:	34.024379		
Long83:	-118.281671		
Site id:	CAOG70000028721		

3
North **OIL_GAS** **CAOG70000028769**
1/2 - 1 Mile

Apinumber:	03705689	District:	1
Geodistric:	0	Statuscode:	014
Gissourcec:	Not Reported	Wellsymbol:	AB
Confidenti:	Not Reported	Countyname:	Los Angeles
Leasename:	University Community C.H.		
Wellnumber:	1		
Operatorna:	Chevron U.S.A. Inc.		
Fieldname:	Las Cienegas	Areaname:	Not Reported
Section:	6	Township:	2S
Range:	13W	Basemeridi:	SB

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lat83:	34.02573
Long83:	-118.287816
Site id:	CAOG70000028769

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90037	3	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Agency Documents

Appendix G

Copyright 2012 CONVERSE CONSULTANTS

South Coast Air Quality Management (SCAQMD) Documents

CONVERSE Project No. 10-42-176-01
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#123929

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
FACILITY EQUIPMENT LIST REPORT

Facility: LA City, Dept. Gen. Services LA Memorial Coliseum **MR:** **Contact: Clayton Peet (213) 744-2149**
Last Inspection: 6/28/01 **TS:** **Quarter:**
SIC Code: **SECTOR ID:** **Assignment No.:** **AIRS ID:**
Inspector: Jason Aspell **On Hold:** **Susp:**
Location Address:3911 S. Figueroa St., Los Angeles 90037 LH
Mailing Address:419 S. Spring St., Los Angeles 90012 PL
Comments:

APPLICATION NO	PERMIT NO	PERMIT ISSUE DATE	PERMIT STATUS	BCAT/ CCAT	DESCRIPTION	APPLICATION DATE	APPLICATION STATUS DESCRIPTION
					Internal Combustion Engine (>500hp)		
					Internal Combustion Engine (>500hp)		
					Internal Combustion Engine (>500hp)		

REPORT: I inspected site on 6/28/01 and met with Director of Operations, Clayton Peet, and Maintenance Tech, Gilbert Perralta. The site does not have any permits, and is run by the same office as the LA Sports Arena (by ticket arena). The site is subject to rules 203, 222, and 1110.2. The site has several pieces of 219 exempt equipment including a 275 MBTU boiler for the locker rooms, 2 HP fire pumps, and 15.5 HP portable lighting. Input rating for Olympic Torch is unknown, and could not be accessed. The site has three emergency generators located on the perimeter at tunnels 1, 16, and 28. Two engines are rated 500 kW and one is rated 600 kW (all Detroit Diesel).Records by engine show all operated less than 200 hr per year and are exempt from emission requirements of 1110.2.. A charbroiler is located in the food court building. I issued Notice of Violation P33999 for installing and operating 3 ICEs. I also issued NTC C71363 to file charbroiler. Notices issued to Valerie Baltazar, receptionist.

Inspector: Jason Aspell **Date:** 7/6/01 **Reviewed By:** [signature] **Date:** 7/25/01

South Coast Air Quality Management District

Facility Equipment List Report

Facility: 128929 LA CITY, DEPT GENERAL SERVICES
MR:
Contact: LEE MOORE (213) 4737745
Last Inspection: 11/13/2008
TS: TS-11 Industrial: Sector-based I
Quarter: 0100 - inspect in 2nd quarter, every year
SIC:
Facility Status: Active
On Hold: N
Suspended: N
Inspector: MS12 MELISSA SANCHEZ
Assignment No. 1080941
Facility Team: L
Inspection Date: 11/13/2008
Disposition: Notice To Comply
Location Address: 3911 S FIGUEROA, LOS ANGELES 90037 Sector:LB
Mailing Address: 111 E FIRST ST., CITY HALL SOUTH, LOS ANGELES 90012-4152 Sector:PL
Instruction:

RECLAIM: N TITLE V: N SIP: AIR:

	Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category	BCAT/CCAT Description	Application Date	Application Status
_____	407037	F55798	10/22/2002	ACTIVE	043902 BCAT	I C E (>500 HP) EM ELEC GEN DIESEL	09/17/2002	PERMIT TO OPERATE GRANTED
_____	407035	F55753	10/18/2002	ACTIVE	043902 BCAT	I C E (>500 HP) EM ELEC GEN DIESEL	09/17/2002	PERMIT TO OPERATE GRANTED
_____	407036	F55754	10/18/2002	ACTIVE	043902 BCAT	I C E (>500 HP) EM ELEC GEN DIESEL	09/17/2002	PERMIT TO OPERATE GRANTED
_____	389276	F43151	08/16/2001	ACTIVE	020000 BCAT	CHARBROILER - NATURAL GAS	07/18/2001	PERMIT TO OPERATE GRANTED

Report: On Nov. 13, 2008, I met with Director of Operations Mike Jacobo and facility worker Ricardo 213.765.6717 to conduct a compliance inspection. Facility does business as LA Collesium Commission and operates three diesel generators, one charbroiler and two boilers rated 750,000 btu.

Item 1 is a Detroit Diesel rated 830 BHP (F55753). Current timer reading 114.9 hours. Engine timing retarded 06/13/06. Reviewed engine operating log. Engine operated less than 20 hours for testing and maintenance in 2006 and 2007. (R1470 compliant, 1110.2 exempt).

Item 2 is a Detroit Diesel rated 830 BHP (F55754). Current timer reading is 98.0 hours. Reviewed engine operating log. Engine operated less than 20 hours for testing and maintenance in 2006 and 2007. (R1470 compliant, 1110.2 exempt).

Item 3 is a Detroit Diesel rated 947 BHP (F55798). Current timer reading is 165.0 hours. Reviewed engine operating log. Engine operated less than 20 hours for testing and maintenance in 2006. (R1470 compliant, 1110.2 exempt). Engine operated 25.9 hours for testing and maintenance in 2007. No emergency runs accounted for in 2007. Unit has exceeded 20 hour limit of Rule 1470.

Advised facility of R1472 for facilities with three or more stationary emergency stand-by diesel generators.

Items 4 and 5 are two Lochinivar boilers rated 750,000 btu input (possibly mfg 1993). Observed both units operating. Advised facility of 15 year life span to meet current NOX emissions or low therm exemption.

Issued NC D19196 to retrofit/replace two Lochinivar boilers rated 750,000 btu. Issued NOV P54430 for violating Rule 1470: Detroit Diesel generator rated 947 BHP exceeding 20 hour testing and maintenance limit for calendar year 2007.

Applicable rules are 1470, 1110.2, 1472, and 1146.2.

Reviewed by MV on 12/5/2008.

Jan. 7, 2009: Per Mr. Jacobo, NC is being addressed by Bob Lou 2137656783.

Oct. 16, 2009: Returned to facility to conduct follow-up inspection. Met with Sr. Building Engineer Bob Liu and Director of Operations Mike Jacobo. Facility has installed gas meter to prove low therm usage exemption. Current meter readings 45144 cubic feet and 3895 cubic feet. Advised facility to record monthly readings to prove exemption.

Inspector: _____ Date: _____ Reviewed By: _____ Date: _____

South Coast Air Quality Management District

NOV P54430

Company

Facility:	LA CITY, DEPT GENERAL SERVICES (ID: 128929)
Location Address:	3911 S FIGUEROA LOS ANGELES, CA 90037
Mailing Address:	419 S SPRING, ST LOS ANGELES, CA 90037-4152
Representative:	DIRECTOR OF OPERATIONS

Violation

Notice Issued Date:	11/13/2008
Violation Date:	11/13/2008
Serve To:	MIKE JACOBO
Issue By:	MELISSA SANCHEZ (Team: I)
Assignment No.:	1079025
Equipment:	
Description	
Violation:	Detroit diesel generator rated 947 BHP exceedeing 20 hour testing and maintenance limit for calendar year 2007.

Disposition

Final Action Code:	CLO 8/26/2009 00:00:00
Achieved Date:	11/13/2008
Due Date:	
Violation Days:	0

Rule/Comment

1470

Emittent

Follow-Up

Status: INCOMP Inspector ID: MSI2 Inspection Date: 11/13/08 00:00 Number:

Lab Sample Numbers

Device IDs.

Inspector Comment

Past violation. Facility currently under 20 hour limit for testing and maintenance.

INSPECTOR: _____ DATE: _____
signature

SUPERVISOR: _____ DATE: _____
signature

South Coast Air Quality Management District

NOV P33999

Company

Facility:	LA CITY, DEPT GENERAL SERVICES (ID: 128929)
Location Address:	3911 S FIGUEROA LOS ANGELES, CA 90037
Mailing Address:	419 S SPRING, ST LOS ANGELES, CA 90037
Representative:	RECEPTIONIST

Violation

Notice Issued Date:	6/28/2001
Violation Date:	6/28/2001
Serve To:	VALERIE BALTAZAR
Issue By:	JASON ASPELL (Team: B)
Assignment No.:	661554
Equipment:	I.C. ENGINES
Description	
Violation:	INSTALLING AND OPERATION OF THREE I.C. ENGINES (TWO 500KW AND ONE 600KW)

Disposition

Final Action Code:	CLO 11/21/2002 00:00:00
Achieved Date:	
Due Date:	
Violation Days:	0

Rule/Comment

201
203 (A)

Emittent

Follow-Up

Status:	Inspector ID:	Inspection Date:	Number:

Lab Sample Numbers

Device IDs.

Inspector Comment

INSPECTOR: _____ DATE: _____
signature

SUPERVISOR: _____ DATE: _____
signature

South Coast Air Quality Management District

Facility Equipment List Report

Facility: 71936 LA CITY, DEPT OF GEN SERVICES
Last Inspection: 06/24/2011
SIC: 9199
Inspector: EE03 EDUARDO ESPARZA
Inspection Date: 06/24/2011
Location Address: 3939 FIGUEROA ST, LOS ANGELES 90037-1200 Sector:LB
Mailing Address: 111 E FIRST ST., CITY HALL SOUTH, LOS ANGELES 90012-4152 Sector:PL
Instruction:

MR:
TS: TS-11 Industrial: Sector-based I
Facility Status: Active
Assignment No. 1243626
Disposition: Operating in Compliance at time of inspection

Contact: LEE MOORE (213) 4737745
Quarter: 0100 - inspect in 2nd quarter, every year
On Hold: N
Suspended: N
Facility Team: J1

RECLAIM: N TITLE V: N SIP: AIR:

Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category	BCAT/CCAT Description	Application Date	Application Status
205424	D41540	06/02/1992	INACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
205425	D41541	06/02/1992	INACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
205426	D41542	06/02/1992	ACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
406913	F56854	12/11/2002	ACTIVE	011003 BCAT	BOILER (5-20 MMBTU/HR) NAT GAS ONLY	09/20/2002	PERMIT TO OPERATE GRANTED
406914	F56855	12/11/2002	ACTIVE	011003 BCAT	BOILER (5-20 MMBTU/HR) NAT GAS ONLY	09/20/2002	PERMIT TO OPERATE GRANTED
408891				666093 BCAT	COMPLIANCE PLAN FOR RULE 1146	11/19/2002	BANKING/ PLAN GRANTED
408892				666093 BCAT	COMPLIANCE PLAN FOR RULE 1146	11/19/2002	APPLICATION CANCELLED, REFUND AL

Report: 06/24/11. I met with Director of Operations Mr. Mike Jacobo (213.765.6717) and Assistant Engineer Mr. Ernesto Altamerano to conduct a compliance inspection. Facility is LA City, Dept. of General Services, ID # 71936, located at 3939 S. Figueroa Street, Los Angeles, 90037. Facility is the Los Angeles Sports Arena. Entrance is near the arena's box office accessible through Hoover Street.

Observed one General Motors diesel-fueled ICE (R-D41542), Model # 62306-RD, s/n 6B-15796, used to drive an emergency generator located on ground level inside the arena. Permit was available onsite (R206 compliant). Permit limits testing and maintenance to 20 hours/year and total run time to 200 hours/year and requires a 4 degree retard. Timer reading at the time of inspection was 138.8 hours. Engine operating logs indicate a run time of less than 10 hours per year (R1470 and R203b compliant). Timing verified to be four degrees retarded every year during annual inspection (R203b compliant). I advised on R1470 and permit conditions.

Observed two Cleaver Brooks boilers, Model # CB223-125, rated 5.25 mmbtu/hr input:
1 (F56854), s/n 0-19475, was not in operation at the time of inspection. Individual gas meter reading was 2,539,740 cf.
2 (F56855), s/n 0-19476, was not in operation at the time of inspection. Individual gas meter reading was 4,439,280 cf.
Permits were available onsite, no real limiting conditions (R206 compliant). Facility was keeping gas usage logs that demonstrated boilers use less than 5,000 therms per year, consistent with previous inspection (R1146 exempt). Tune ups done annually for each boiler by PBS (R1146 compliant). I advised on R1146.

No other equipment onsite per facility. Painting done by General Services personnel per facility. No charbroilers onsite per facility. No enforcement action taken at this time.

Reviewed 06/24/11 by FG

Inspector: _____ Date: _____ Reviewed By: _____ Date: _____

South Coast Air Quality Management District

Facility Equipment List Report

Facility: 71936 LA CITY, DEPT OF GEN SERVICES
Last Inspection: 06/28/2001
SIC: 9199
Inspector: JA02 JASON ASPELL
Inspection Date: 06/28/2001
ocation Address: 3939 FIGUEROA ST, LOS ANGELES 90037-1200 Sector:LH
Mailing Address: 419 S SPRING ST, LOS ANGELES 90012 Sector:PL
Instruction:

MR:
TS:
Facility Status: Active
Assignment No.661377
Disposition: Notice Of Violation

Contact: HAROLD CAIN (213) 4855486
Quarter: 1000 - inspect in 1st quarter, every year
On Hold: Suspended:
Facility Team: J1

RECLAIM: N TITLE V: N SIP: AIR:

	Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category	BCAT/CCAT Description	Application Date	Application Status
✓	205426	D41542	06/02/1992	ACTIVE	04390 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/19	PERMIT TO OPERATE GRANTED
	205424	D41540	06/02/1992	INACTIVE	04390 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/19	PERMIT TO OPERATE GRANTED
	205425	D41541	06/02/1992	INACTIVE	04390 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL BOILER (>5 MM BTU) BOILER (>5 MM BTU)	05/26/19	PERMIT TO OPERATE GRANTED

Report: Inspected site on 6/28/01 and met with Clayton Peet, Dir. Of Operations, and Gilbert Perralta, Maintenance Tech. Site is subject to rules 203, 1110.2 and 1146. The site is permitted for one 198 HP ICE. Maintenance log by engine showed engine was operated less than 200 hrs in 2000 (5hrs; exempt from emission requirements 1110.2). There are also two 5.25 MMBTU boilers located in the basement, neither is permitted. The boilers were manufactured in 1958 by Cleaver Brooks. Both boilers had totalizing meters, Mr. Perralta did not know if there were records of gas usage or tune ups. I issued NOV P33998 for operating two boilers without a permit. I issued NTC C71362 to provide tune up and heat input records.

Inspector: Jason Aspell Date: 7/6/01 Reviewed By: [illegible] Date: 7/25/01

South Coast Air Quality Management District

Facility Equipment List Report

Facility: 71936 LA CITY, DEPT OF GEN SERVICES
Last Inspection: 06/24/2011
SIC: 9199
Inspector: MS12 MELISSA SANCHEZ
Inspection Date: 11/13/2008
Location Address: 3939 FIGUEROA ST, LOS ANGELES 90037-1200 Sector:LB
Mailing Address: 111 E FIRST ST., CITY HALL SOUTH, LOS ANGELES 90012-4152 Sector:PL
Instruction:

MR:
TS: TS-11 Industrial: Sector-based I
Facility Status: Active
Assignment No. 1080884
Disposition: Notice To Comply

Contact: LEE MOORE (213) 4737745
Quarter: 0100 - inspect in 2nd quarter, every year
On Hold: N
Suspended: N
Facility Team: J1

RECLAIM: N TITLE V: N SIP: AIR:

Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category	BCAT/CCAT Description	Application Date	Application Status
205424	D41540	06/02/1992	INACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
205425	D41541	06/02/1992	INACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
205426	D41542	06/02/1992	ACTIVE	043901 BCAT	I C E (50-500 HP) EM ELEC GEN-DIESEL	05/26/1989	PERMIT TO OPERATE GRANTED
406913	F56854	12/11/2002	ACTIVE	011003 BCAT	BOILER (5-20 MMBTU/HR) NAT GAS ONLY	09/20/2002	PERMIT TO OPERATE GRANTED
406914	F56855	12/11/2002	ACTIVE	011003 BCAT	BOILER (5-20 MMBTU/HR) NAT GAS ONLY	09/20/2002	PERMIT TO OPERATE GRANTED
408891				666093 BCAT	COMPLIANCE PLAN FOR RULE 1146	11/19/2002	BANKING/ PLAN GRANTED
408892				666093 BCAT	COMPLIANCE PLAN FOR RULE 1146	11/19/2002	APPLICATION CANCELLED, REFUND AL

Report: On Nov. 13, 2008, I met with Director of Operations Mike Jacobo and facility worker Ricardo 213.765.6717 to conduct a compliance inspection. Facility doing business as Los Angeles Sports Arena. Operates two boilers rated 5.25 mm/btu input and one diesel generator.

Item 1 is a Cleaver Brooks model CB223-125 S/N 0-19475 rated 5.25 mm/btu input (F56854). Boiler operates under compliance plan. Individual gas meter installed. Current gas reading 22,003 cbf. Gas usage log not available. Tune-up records not available.

Item 2 is a Cleaver Brooks model CB223-125 S/N 0-19476 rated 5.25 mm/btu input (F56855). Boiler operates under compliance plan. Individual gas meter installed. Current gas reading 41367 cbf. Gas usage log not available. Tune-up records not available.

Item 3 is a Detroit Diesel 198 BHP diesel generator. Current timer reading 135.6 hours. Reviewed engine operating log. Unit operated less than 20 hours for testing and maintenance in 2006 and 2007 (R1470 compliant, R1110.2 exempt). Ignition timing inspected and adjusted during yearly maintenance. Maintenance records on file.

Issued NC D19197 to provide gas usage records and tune-up records for 2006 and 2007.

Applicable rules are 1470, 1110.2, 1146.

Reviewed by MV on 12/5/2008.

Jan. 7, 2009: Per Mr. Jacobo, NC is being addressed by Bob Lou 2137656783.

March 27,2009: Facility provided tune-up records for both boilers dated 12/07/06 and 12/24/07. Unit does not operate through a continuous six-month period.

Oct. 16, 2009: Met with Director of Operations Mike Jacobo and Sr. Building Engineer Bob Liu to conduct follow-up inspection. Facility provided copies of gas usage records for 2005-2008. Boilers use on average 2,5000 therms/month. Usage is within allowable therms for the year (<90,000 therms). Facility complied with NC D19197 and is operating incompliance.

Inspector: _____ Date: _____ Reviewed By: _____ Date: _____

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

NOTICE OF PERMIT REISSUANCE

Dear Sir/Madam:

This notice is to inform you that the South Coast Air Quality Management District (AQMD) is reissuing your air permit (see attached) for operation of your existing diesel-fueled emergency internal combustion engine.

The AQMD Governing Board has adopted Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. Rule 1470 is intended to implement the requirements of the state law (Air Toxics Control Measure) and imposes new requirements on the operation of diesel-fueled internal combustion engines. In order to minimize the economic burden on the operators of these engines, AQMD has committed to reissue permits for certain engines without requiring the engine operators to file an application or pay additional fees for such permit re-issuance.

You were mailed a survey in 2006 and included in the survey was a form (Form 1470-CS-Rule 1470 Compliance Status Report for CI Engines > 50 H.P.) which was not returned to AQMD. Therefore, based on the rule's requirement we are reissuing your permit with a condition to limit the engine operating time for testing and maintenance purposes **to less than 20 hours** in each calendar year, and prohibits the engine to be enrolled in an interruptible service contract or demand response program with the local utility.

Please review the attached reissued permit(s) and new conditions to familiarize yourself with the new requirements. If you need to revise the reissued permit, you will have to file an application for an Administrative Change or a Change of Condition along with the appropriate fees and information to demonstrate how the requested revision(s) in the operation of the engine will comply with the requirements of Rule 1470.

An application for an *Administrative Change* (Form 400-A & $489.20) must be submitted for any engine that will operate more than 20 hours for testing and maintenance annually and the annual hourly limit is based on either the engine manufacturer's test data or an off-road certification test.

A permit application for a *Change of Condition*(Form 400-A & $839.93) must be submitted for any engine that will operate more than 20 hours for testing and maintenance annually and the annual hourly limit is based on the results of an existing or a new engine emissions testing

If you have any questions regarding this letter or your reissued permit, please contact Permit Services at (909)396-3385 and reference the application or permit number on the attached reissued permit.

PERMIT TO OPERATE

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 71936

Legal Owner
or Operator: LA CITY, DEPT OF GEN SERVICES
111 E FIRST ST., CITY HALL SOUTH , ATTN: LEE MOORE, RM 600
LOS ANGELES, CA 90012-4152

Equipment Location: 3939 FIGUEROA ST, LOS ANGELES, CA 90037-1200

Equipment Description :

INTERNAL COMBUSTION ENGINE, GM, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATOR, MODEL NO. DETROIT 6-71, SERIAL NO. 62306RD, SIX CYLINDERS, FOUR CYCLES, TURBOCHARGED, 198 BHP, WITH ONE EXHAUST.

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

4. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.

5. THE OPERATION OF THE ENGINE BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

6. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.

FILE COPY

PERMIT TO OPERATE

7. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
   A. EMERGENCY USE HOURS OF OPERATION
   B. MAINTENANCE AND TESTING HOURS
   C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)
   IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.

9. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.

THIS PERMIT TO OPERATE R-D41542 SUPERSEDES PERMIT TO OPERATE D41542 ISSUED 6/2/1992

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/JM01
6/19/2007

FILE COPY

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, C. 765

PERMIT TO OPERATE

P/N D41542
A/N 205426

This [illegible] annual re[illegible]

Legal Owner or Operator: LA CITY, DEPT OF GEN SERVICES
200 N. MAIN ST.
LOS ANGELES, CA 90012-4110
ATTN: HAROLD CAIN

ID: 071936

Equipment located at: 3939 FIGUEROA ST, LOS ANGELES, CA 90037-1200

Equipment Description:

INTERNAL COMBUSTION ENGINE, GM, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATOR, MODEL NO. DETROIT 6-71, SERIAL NO. 62306RD, 6 CYLINDERS, 4 CYCLES, TURBOCHARGED, 198 BHP, WITH 1 EXHAUST.

Conditions:

1. Operation of this equipment must be conducted in compliance with all data and specifications submitted with the application under which this Permit is issued unless otherwise noted below.

2. This equipment must be properly maintained and kept in good operating condition at all times.

3. The ignition timing of the engine shall be inspected, adjusted, and certified at a minimum of once every three years of operation. Inspections, adjustments, and certifications must be performed by a qualified mechanic and done in accordance with the engine manufacturer's specifications and procedures.

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY MUST BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCE, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

By Dorris M. Bailey
November 25, 1992

FILE COPY

South Coast Air Quality Management District

NOV P33998

Company

Facility:	LA CITY, DEPT OF GEN SERVICES (ID: 71936)
Location Address:	3939 FIGUEROA, ST LOS ANGELES, CA 90037-1200
Mailing Address:	419 S SPRING, ST LOS ANGELES, CA 90012
Representative:	RECEPTIONIST

Violation

Notice Issued Date:	6/28/2001
Violation Date:	6/28/2001
Serve To:	VALERIE BALTAZAR
Issue By:	JASON ASPELL (Team: B)
Assignment No.:	661221
Equipment:	BOILERS
Description	
Violation:	OPERTION OF TWO 5.25 MM BTU BOILERS

Disposition

Final Action Code:	CLO 11/21/2002 00:00:00
Achieved Date:	
Due Date:	
Violation Days:	0

Rule/Comment

203 (A)

Emittent

Follow-Up

Status:	Inspector ID:	Inspection Date:	Number:

Lab Sample Numbers

Device IDs.

Inspector Comment

INSPECTOR: _____ DATE: _____
signature

SUPERVISOR: _____ DATE: _____
signature

South Coast Air Quality Management District
Facility Equipment List Report

SECTOR ID: LH Compliance Team: W PermittingTeam: AIRS ID: Hirata Larry 213.495.4955

Facility: 71936 LA CITY, DEPT OF GEN SERVICES Contact: ~~GAEN HAROLD~~ - (213) 4855486

Last Inspection: 6/29/00 Inspector: OPEN (call Supervisor) BPham Quarter: 8 - 1000 - inspect in 1st quarter, every year

SIC Code: 9199 Assignment No: MR: TS: -

Location Address: 3939 FIGUEROA ST, LOS ANGELES, CA , 90037 Mailing Address: 111 E FIRST ST., RM 709 CHS, LOS ANGELES, CA, 90012

Met with Jess Tizuado, Dept. of General Svcs Operations. The ICE was located in the LA. Sports Arena. Permit D41542 requires maintenance of equipment in good operating condition. Inspections, adjustments and certifications are performed every two years. Of 6-7 hrs/yr. Test runs are performed monthly at 30 minutes. 1999-99 yearly accumulated to ~30hrs. Applicable rule is 1110.1. Permitted ICE used for emergency purposes. NO

	APPL NO:	PERMIT NO:	PERMIT ISSUE DATE:	PERMIT STATUS:	BCAT /CCAT	DESCRIPTON	APPL DATE	APPL STATUS DESCRIPTION
Rem	205424	D41540	920602	INACTIVE	043901	I C E (50-500 HP) EM ELEC GEN-DIESEL	890526	PERMIT TO OPERATE GRANTED
Rem	205425	D41541	920602	INACTIVE	043901	I C E (50-500 HP) EM ELEC GEN-DIESEL	890526	PERMIT TO OPERATE GRANTED
	205426	D41542	920602	ACTIVE	043901	I C E (50-500 HP) EM ELEC GEN-DIESEL	890526	PERMIT TO OPERATE GRANTED

enforcement action taken. Equipment on Permits D41540 + D41541 have been removed.

Facility: 71936 LA CITY, DEPT OF GEN SERVICES

Inspector: Ballington Pham Date: 6 29 / 00 Reviewed By:

City of Los Angeles, Department of Public Works (DPW), Bureau of Sanitation Documents

CONVERSE Project No. 10-42-176-01
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CITY OF LOS ANGELES
CALIFORNIA

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2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
OFFICE: (323) 342-6200
FAX: (323) 342-6111

16-Dec-11

Lisa Walldez
Converse Consultants
222 East Huntington Drive, Suite 211
Monrovia, California 91016-3500

INDUSTRIAL WASTE DISCHARGE PERMIT INFORMATION

Your request to research our files for Industrial Waste Discharge permit information was done by my staff. Our records show the following findings:

[X] No permit on file for: **3911-3940 (odd only) S. Figueroa Street, 729 West Santa Barbara Ave., 3820, 3820 1/2, 3836, 3910, 3912 S. Vermont Ave., 921, 923, 926, and 928 West 39th Street, Los Angeles, CA 90037**

[X] Permits have been issued for: **3939 S. Figueroa Street, Los Angeles, CA 90037**

(see attachments)

[X] No citation have been issued for the past 5 years.

[ ] Yes, citations have been issued (see attachments).

The cost of generating this report is $ **$1.30**

Please remit a check in the above amount, payable to "Department of Public Works", and mail to:

Bureau of Sanitation
Industrial Waste Management Division
2714 Media Center Drive
Los Angeles, CA 90065
Attn: Admin Inspection Group

If you have any questions, please contact Nona Colorado of my staff at (323) 342-6063.

Sincerely,

ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation

By: Robert W. Yohannes for
Tim Daleta, Manager
Industrial Waste Management Division

C: Attachment [X] yes [ ] no

Nona Colorado

Recyclable and made from recycled waste

W-173835 IU#-IU002076 STATUS: A SIU SECT.: N DISTRICT: NA SUBDIST: NA
FOG ZONE: 40 SUB-ZONE: 20

INSPECTOR: CRYSTOL BRANDT, HENRY M BERSALES

---

* APPLICATION

APPL. REASON: New or Proposed Point of Discharge
RECEIVED DATE: 05/28/59 RECEIPT #:

* INDUSTRIAL USER

LEGAL BUS. NAME: CITY OF LOS ANGELES BU OF PUBLIC BLDGS
DBA NAME: LOS ANGELES SPORTS ARENA
BUSINESS TYPE ARENA FOR SPORTING EVENTS & SHOWS
OWNERSHIP TYPE Government
ADDRESS: 3939 S FIGUEROA Street
LOS ANGELES, CA 90037
CONTACT NAME: Huge Gallagher TITLE: Manager
BTRC: EXEMPT PHONE: (213) 765-6380

* INDUSTRIAL USER MAILING ADDRESS

NAME: CITY OF LOS ANGELES BU OF PUBLIC BLDGS
ADDRESS: 200 N MAIN Street, Room 800
LOS ANGELES, CA 90012
OR P.O. BOX: PHONE: (213) 748-6131
ATTENTION: CLAYTON PEET

* BILLING ADDRESS

NAME: CITY OF LOS ANGELES BU OF PUBLIC BLDGS
ADDRESS: 111 E FIRST Street, Room 709
LOS ANGELES, CA 90012
OR P.O. BOX: PHONE: (213) 765-6380
ATTENTION: CITY STOP #508

* CORPORATE OFFICERS

NAME 1: FRAN BARKER
TITLE 1: MAINTENANCE PERSON

* PROPERTY OWNER

NAME: CITY OF LOS ANGELES
ADDRESS:

OR P.O. BOX: PHONE: (213) 748-6131
ATTENTION: CITY OF LOS ANGELES

* PERMITTEE LOCATION ADDRESS

DESCRIPTION: CITY OF LOS ANGELES BU OF PUBLIC BLDGS
ADDRESS: 3939 S FIGUEROA Street
LOS ANGELES, CA 90037
OR P.O. BOX: PHONE: (213) 765-6380
ATTENTION: Huge Gallagher

COUNCIL DIST.: 9 Jan Perry

* GENERAL INFORMATION

STATUS: A
DISTRICT: NA None SUB-DISTRICT: NA
FOG ZONE: 40 SUB-ZONE: 20
DISCHARGE START DATE: 05/28/1959
FINAL DISPOSAL CODE: 01 Public Sewer
IND. CLASS.: 021 021-Public Buildings
INSP. CLASS.: IP01 Inspection & Control Fee Class 1
BILLING TYPE/FREQ: O Permit for council controlled property / Quarterly
RESTAURANT SEATING CAP:
LAUNDRY WASHER COUNT/CAPACITY(lbs): /
NUMBER OF GARBAGE GRINDER/EFF DATE: /

* FACILITY CLASSES

CLASS: LIU:FOG
LIU:Ref-FOG

* SMR FREQUENCIES

FEDERAL: LOCAL: SURCHARGE:

* PERMIT CERTIFICATE

PERMIT TYPE: LIU with FOG
PERMIT EFF. DATE: 05/28/1959 AMENDED DATE: 08/05/2003
PERMIT EXP. DATE:
SIU GROUP:

* PERMIT TERMINATION

TERMINATION DATE:
TERMINATION REASON:
REQUESTOR:

* LATERAL CONNECTION ------ SEWER CONNECTION ------

DESCRIPTION: Public Sewer - Outlet Num : 0100
WYE MAP ID: SEWER PERMIT:
PIPE MATERIAL: SIZE (INCHES):

* FLOW INFORMATION

ORIGINAL TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: 6,000 / 09/20/1978
MAXIMUM TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: /
TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: /
AVG CALENDAR DAY FLOW (GPD, CAL.)/EFF. DATE: /
AVG OPERATIONAL DAY FLOW (GPD, CAL.)/EFF. DATE:
SFC FLOW (GPD, CAL.)
SURCHARGE FLOW (GPD, CAL.)/EFF. DATE:
SURCHARGE PSDF FLOW (GPD, CAL.)/EFF. DATE:

* SURCHARGE INFORMATION

QUARTERLY SURCHARGE VALUES: SS: BOD:
ZERO BASED QUALITY SURCHARGE INDICATOR: N

* SAMPLE POINT INFORMATION

SP: 01-001 SUMP IN THE BASEMENT -- NORMAL OPERATIONS

SP TYPE: End-of-Pipe SSF: N FLOW METER PRESENT: N EFFECTIVE DATE: 05/28/1959

SP: 02-001 FLOOR DRAIN RECEIVING DISCHARGE FROM COOLING TOWER -- NORMAL OPERATIONS
SP TYPE: Other SSF: N FLOW METER PRESENT: N EFFECTIVE DATE: 05/28/1959

* PROCESS UNIT OPERATION

PUO Code:

* PRETREATMENT UNIT OPERATION

PTUO CODE:		
01001	0110IF	EVAPORATOR CONDENSORS
	0110TR	RECIRCULATION
	CL0111	CLARIFICATION - GREASE INTERCEPTOR, 1000 GAL @ SAMPLE BOX
	SC0020	SCREENING - STATIONARY SCREENS
02001	0110IF	EVAPORATOR CONDENSORS
	0110TR	RECIRCULATION
	SC0020	SCREENING - STATIONARY SCREENS

* SIC

SIC CODE:		
	7996	Amusement Parks
	5812	Eating Places

* NAICS

NAICS CODE:

* COOLING TOWER

TONNAGE: 01-001 1,100

* OTHER ENVIRONMENTAL PERMIT(S)

PERMIT#/DESCRIPT.: FSE Number from FOG DB / 8035 / IWMD\FOG
FSE Number from FOG DB / 8215 / IWMD\FOG

* OTHER INDUSTRIAL WASTEWATER PERMIT(S)

PERMIT NUMBER(S):

PREPARED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

ENTERED BY: _____ DATE: _____

RUN DATE: 12/16/2011
RUN BY: NCOLORADO

City of Los Angeles Fire Department (LAFD) Hazardous Materials Records Documents

CONVERSE Project No. 10-42-176-01
Copyright 2012 CONVERSE CONSULTANTS

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021432
Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
GASOLINE	1	1000	1000		L
-		0	0		
-		0	0		
ACETYLENE(In-active) Inactivated on: 03/04/1993	1	50	150		G
-		0	0		
DIESEL(In-active) Inactivated on: 03/04/1993	1	55	110		L

of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021432
Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
DIESEL(In-active) Inactivated on: 03/04/1993	1	200	500		L
-		0	0		
FERTILIZER(In-active) Inactivated on: 03/04/1993	1	1200	1800		L
-		0	0		
GASOLINE(In-active) Inactivated on: 03/04/1993	1	30	750		L

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
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Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
MOTOR OIL(In-active) Inactivated on: 03/04/1993	1	110	440		L
-		0	0		
OXYGEN(In-active) Inactivated on: 03/04/1993	1	80	160		G
-		0	0		
PROPANE(In-active) Inactivated on: 03/04/1993	1	75			L

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021432
Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
GASOLINE	1	1000	1000		L
-		0	0		
-					
-		0	0		
ACETYLENE(In-active) Inactivated on: 03/04/1993	1	50	150		G
-		0	0		
DIESEL(In-active) Inactivated on: 03/04/1993	1	55	110		L

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021432
Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
DIESEL(In-active) Inactivated on: 03/04/1993	1	200	500		L
-		0	0		
FERTILIZER(In-active) Inactivated on: 03/04/1993	1	1200	1800		L
-		0	0		
GASOLINE(In-active) Inactivated on: 03/04/1993	1	30	750		L

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021432
Business Name: LOS ANGELES MEMORIAL COLISEU
Business Mailing Address: 3911 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3911 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
MOTOR OIL(In-active) Inactivated on: 03/04/1993	1	110	440		L
-		0	0		
OXYGEN(In-active) Inactivated on: 03/04/1993	1	80	160		G
-		0	0		
PROPANE(In-active) Inactivated on: 03/04/1993	1	75			L

City of LOS ANGELES
CALIFORNIA

BUSINESS INFORMATION

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Printed on: 08/02/2006

INSTRUCTIONS : Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: FA0021432 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LOS ANGELES MEMORIAL COLISEUM

Address Where Business is Conducted : 3911 S FIGUEROA ST, LOS ANGELES, CA 90037
Mailing Address : 3911 S FIGUEROA ST LOS ANGELES, CA 90037
Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

Number of Employees: 0
SIC Code : 7941
Dun & Bradstreet Number:

CONTACT	WORK #	24 HOUR #	PAGER #	OTHER #
Owner Name: LOS ANGELES COLISEUM COMMISSIO	(213) 748-6136			
On-Site Manager:				
Emergency Contact: SMG CLAYTON PEET				
2nd Emergency Contact: WATCH ONE SECURITY				

Signature of Legal Business Owner/Authorized Representative **Title** **Date**

Business Plan has been reviewed and approved: _____

Office Use Only Insp. ID: _____ Date: _____ D/E ID: _____ Date: _____ TS: _____

City of LOS ANGELES
CALIFORNIA

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Los Angeles Fire Department
Data Entry Instruction Form (DEIF)

Date:	6/20/2006	**New Business**	☐
Inspector's / Member:	OLIVIERI	**Fire Station:**	046
Facility ID:	FA0021432	**HM Inspector No.:**	EE0000140
Business Name:		**UST Inspector No.:**	
LOS ANGELES MEMORIAL COLISEUM		**Occ. Jurisdiction:**	046

DATA ENTRY INSTRUCTION: *Check appropriate boxes*

- [X] **Changes on BP-1**
- [ ] **Changes on BP-8**
- [ ] **Changes on Attached CUPA Form(s)**
- [ ] **UST Adandon Sheets**
- [ ] **UST Installation Sheets**
- [ ] **Enter Inventory On Attached CUPA Forms**
- [ ] **Inactive Business** *Journal Entry Should Be Included*

  Reason:

- [X] **Other Instruction:** *For Examples: Combine Business Under One BP Number*

  THIS FACILITY HAS ONLY AN OLD U.S.T. THAT HAS BEEN ABANDONED IN PLACE. PLEASE REMOVE IT FROM INSP # 425'S TO-DO LIST AND GIVE IT TO INSP #423, GUARDADO.

Data Entry Name: _____ **Date:** 8-2-06

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

BUSINESS INFORMATION

Printed on: 05/09/2005

INSTRUCTIONS : Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: FA0021432 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LOS ANGELES MEMORIAL COLISEUM

Address Where Business is Conducted : 3911 S FIGUEROA ST, LOS ANGELES, CA 90037
Mailing Address : 3911 S FIGUEROA ST LOS ANGELES, CA 90037
Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

Number of Employees: 0
SIC Code : 7941
Dun & Bradstreet Number:

CONTACT	WORK #	24 HOUR #	PAGER #	OTHER #
Owner Name: LOS ANGELES MEMORIAL COLISEUM	(213) 748-6136			
On-Site Manager:				
Emergency Contact: SMG CLAYTON PEET				
2nd Emergency Contact: "Watch One" SECURITY (Top of ~~Sports Arena~~ ~~Ramp off~~ ~~Hoover~~ ST.)				

Signature of Legal Business Owner/Authorized Representative | **Title** | **Date**

Business Plan has been reviewed and approved: _____

Office Use Only Insp. ID: _____ Date: _____ D/E ID: _____ Date: _____ TS: _____

City of LOS ANGELES
CALIFORNIA

LOS ANGELES
FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Hazardous Materials System
BP-8: Computer Listing of Inventory Submitted
Inspection Responsibility: VIU

Business No : FA0021432
First In : 046
Block # :

Printed on: 5/9/2005

Business Name	: LOS ANGELES MEMORIAL COLISEUM	**Business Address:**	3911 S FIGUEROA ST,	**Last Inspection Date:**	01/30/2001
Business Owner	: LOS ANGELES MEMORIAL COLISEUM		LOS ANGELES, CA 90037	**SIC Code**	: 7941
On-Site Manager	:	**Phone #**	:	**# of Employees**	:
Emergency Contact	: SMG CLAYTON PEET	**Phone #**	:	**Sq. Ft. of Facility**	: N/A
Alt Emergency Contact:		**Phone #**	: Ext:	**Permit Date**	: 09/01/2003

LOCATION: **NFPA-704: N/A** **Products: 1**

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
GASOLINE	PURE	**1,000.00 GALLONS**	LIQUID	

Hazard Class: MOTOR VEHICLE FUEL/USED OIL/US
Storage Type: UNDERGROUND TANK

Ingredients	*Max %*	*CAS #*
GASOLINE		8006619

01/30/2001 My signature indicates that I have verified and agreed with the types and quantities of hazadous materials at this address

INSP SIG: _____ INSP. DATE: _____ BUS. REP. SIG: _____ DATE: _____ DE. SIG.: _____ DATE: _____

REPORT NO: IHMSR500
RUN DATE : 12/14/1995

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED
INSPECTION RESPONSIBILITY: CENT INDUSTRIAL

PAGE : 1
BUSINESS #: 021432-0
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL COLISEUM ADDR: 03911 S FIGUEROA ST
BUS OWNER : LOS ANGELES MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : SMG - GEORGE GONZALEZ EXT 355 PH #: 213-748-6136
EMERG CONTACT : SMG - CLAYTON PEET PH #:
ALT EMERG CONTACT: SMG - JERRY NIELSEN PH #:

BUS PLN REVW: 06/07/1993 INV VERIFIED: 03/04/1993
SIC CODE : 7941
NO OF EMPLOYEES : 0
SQ FT OF FACILITY : 0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST MAX%	MAXIMUM QUANTITY AT ANY TIME / CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047786-002-3 NFPA-704:						PRODUCTS: 1
1		GASOLINE GASOLINE	0%	1,000.00 GA 8006-61-9	UNDERGROUND TANK FIRE		L	FUEL/OIL

MY SIGNATURE INDICATES THAT I HAVE VERIFIED AND AGREED WITH THE TYPES AND QUANTITIES OF HAZARDOUS MATERIALS AT THIS ADDRESS

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG:_____ DATE:_____

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021432-0 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL COLISEUM

Address Where Business Is Conducted: 3911 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

Legal Business Owner Name: LOS ANGELES MEMORIAL COLISEUM COMMISSION — WORK PHONE NUMBER (213) 748-6136

On-Site Manager: SMG - GEORGE GONZALEZ EXT 355 — (213) 748-6136

EMERGENCY PHONE NUMBER (24-HOUR)

Emergency Contact: SMG - CLAYTON PEET _____

Alternate Emergency Contact: SMG - JERRY NIELSEN

Standard Industrial Classification (SIC) Code of Business: 7941

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3911 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

_____

_____

Number of Employees: _____ Square Footage of Facility: _____

_____ _____ _____

Signature of Legal Business Owner/Authorized Representative Title Date

****

Office Use Only Insp. I.D.:_____ Date:_____ D/E I.D.:_____ Date:_____ TS:_____

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 10-31-95 NEW USER ☐

INSPECTOR'S NAME CARPENTER INSPECTOR NO. 444

BUSINESS NO. 21432-0 FS DIST. 2,14,16,17,21,25,33,46

BUSINESS NAME Los Angeles Memorial Coliseum

ACTION: *(Automatically entered by Data Entry)*

- ☐ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☑ (BI) Notification of Business Plan Requirements
- ☑ (DA) Approval of Business Plan *(Date)*_____
- ☐ (VA) Inventory Verified By On-Site Inspection *(Date)*_____
- ☑ (EG) Warning Notice for Failure to Disclose
- ☑ (BG) Warning Notice for Failure to Submit Business Plan
- ☐ Medical Exemption Approved *(Signature)*_____

DATA ENTRY INSTRUCTIONS: *(Circle desired form to make instruction clear and check off appropriate boxes)*

- ☑ Enter Highlighted Changes on BP-1 / (BP-8)
- ☐ Enter Inventory On Amendment / Disclosure
- ☐ Inactivate Business *(Journal Entry Should Be Included)*
- ☐ Other Instructions: *(For example: Enter I Codes; Combine Businesses under one BP number)*

OCC. JURISDICTION CIND emm See Reverse For Journal ☑

INSPECTOR TIMEKEEPING: I1 .1 I2 _____ I3 _____

K-5 (Emergency Information)_____ K-6 (Inventory)_____

K-7 (Business Plans)_____ K-8 (Site Map)_____

K-9 (Other Code Enforcement)_____ *(K-Codes are entered automatically)*

STATUS:	YES	NO
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason:
- ☐ Out of Business
- ☐ Moved Location
- ☐ No Hazardous Materials
- ☐ Change of Ownership
- ☐ Below Disclosure Level

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

_____

828 Permit No.: _____

Area Covered by Placard:

_____

_____

REPORT NO IHMS-500
RUN DATE = 06/10/1993

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

BUSINESS #: 021432-0
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL COLISEUM ADDR: 03911 S FIGUEROA ST
BUS OWNER : LOS ANGELES MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : SMG - GEORGE GONZALEZ EXT 355 PH #: 213-748-6136
EMERG CONTACT : SMG - CLAYTON PEET PH #:
ALT EMERG CONTACT: SMG - JERRY NIELSEN PH #:

BUS PLN RCVD: 0/ 0/ 0 INV VERIFIED: 03/04/19
SIC CODE : 7941
NO OF EMPLOYEES : 0
SQ FT OF FACILITY : 0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST MAX%	MAXIMUM QUANTITY AT ANY TIME / CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047786-002-3 NFPA-704:						PRODUCTS: 1
1		GASOLINE		1,000.00 GA	UNDERGROUND TANK FIRE		L	FUEL/OIL
		GASOLINE	0%	8006-61-9				

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG: MM DATE: 10/5/93

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021432-0 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL COLISEUM

Address Where Business Is Conducted: 3911 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

_____

_____

_____

Legal Business Owner Name: LOS ANGELES MEMORIAL COLISEUM COMMISSION WORK PHONE NUMBER (213) 748-6136

On-Site Manager: SMG - GEORGE GONZALEZ EXT 355 (213) 748-6136

EMERGENCY PHONE NUMBER (24-HOUR)

Emergency Contact: SMG - CLAYTON PEET (_____

Alternate Emergency Contact: SMG - JERRY NIELSEN

Standard Industrial Classification (SIC) Code of Business: ____

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3911 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

_____

_____

Number of Employees: _____ Square Footage of Facility: _____

_____ _____ _____

Signature of Legal Business Owner/Authorized Representative Title Date

****

Office Use Only Insp. I.D.:_____ Date:_____ D/E I.D.:_____ Date:_____ TS:____

38-F-977
Part 1 - Citizen
Part 2 - Fire Dept.
Part 3 - Fire Dept.

24132-0

City of Los Angeles
DEPARTMENT OF FIRE
HAZARDOUS MATERIALS VIOLATION

4905

OCCUPANCY	DISTRICT	BLOCK NO.	MAP BOOK	PAGE	PARCEL	DATE
L. A. Memorial Coliseum	4/6					3-10-93

TO: (Name)	(Title)	FIRM OR D.B.A.
Mr. Clayton Peete	Director of Operations	L. A. Memorial Coliseum

ADDRESS: (Street)	(City)	(State)	(Zip Code)	PHONE
3911 S Figueroa	L. A.	Cal.	90037	(213) 748-6136

ADDRESS OF VIOLATION: (Street)	(City)	(State)	(Zip Code)
Same as Above			

COMPLY WITH REQUIREMENTS AS NOTED

CERTIFICATE OF DISCLOSURE

☐ 1. Requirement: Each business that handles or intends to handle a hazardous substance in the City shall file an application for, and obtain a Certificate as required by this Division. (LAMC 57.08.03A)

☐ 2. Contents: Submit an application including a Hazardous Materials and Hazardous Waste Information Form. Each chemical used, stored, or handled shall be disclosed using the format codes adopted by the Fire Department. (LAMC 57.08.06E 1-4)

☐ 3. Posting: Post the original or a copy of the current Certificate issued in a conspicuous location at the business site. (LAMC 57.08.11A)

☐ 4. Maintain: A copy of all Hazardous Substance Information Forms shall be maintained at the business site for a period of not less than three years. (LAMC 57.08.11B)

☐ 5. Amendment: An Amendment Form shall be forwarded to the Fire Department if (LAMC 57.08.07):

- ☐ A business handles a hazardous substance not previously disclosed;
- ☐ The inventory significantly changes quantities previously indicated; or
- ☐ A change in the mode or place of storage affecting environment, health and safety of individuals.

BUSINESS PLAN

☒ 6. Requirement: A business handling hazardous materials at any one time in quantities at or above 55 gallons, 500 pounds, or 200 cubic feet shall submit a Hazardous Materials Business Plan. (LAMC 57.08.15 A-D)

☒ 7. Contents: Address the following elements of the Business Emergency Response Plan (CHSC Div 20, Sec. 25504):

☑ Notification Procedure ☑ Medical Assistance ☐ Prevention ☐ All
☑ Mitigation ☑ Abatement ☐ Employee Training / Safety

☑ 8. Site Map:

- ☑ Submit a Site Map of your facility using the format, symbols, and abbreviations adopted by the Fire Department. (LAMC 57.08.15 B-8)
- ☐ Submit a general Site Map of the overall facility layout. Submit separate Site Maps for each building or area where hazardous substances or wastes are stored, handled, or processed. (LAMC 57.08.15 B-8)
  - ☐ See reverse for specific locations.

☑ 9. Maintain: A complete copy of the Business Plan shall be maintained at the business site. This Business Plan shall be available at all times for use by employees and for inspection by the Fire Department. (CHSC Div. 20. Chap. 6.95)

☑ 10. Material Safety Data Sheets (MSDS): Maintain MSDS for each hazardous product handled at the business site. It shall be available at all times for use by employees and for inspection by the Fire Department. (SARA Title III, Sec. 311-312)

☐ 11. Other or additional information on the back of this form.

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 6/7/93 NEW USER ☐

INSPECTOR NAME Gregory Plain INSPECTOR NO. 432

BUSINESS NO. 21432-0 FS DIST. 4L

BUSINESS NAME L.A. Memorial Coliseum & Sports Arena

ACTION: *(Automatically entered by Data Entry)*

- ☐ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☒ (DA) Approval of Business Plan
- ☐ (VA) Inventory Verified By on Site Inspection _____ Date
- ☐ (EG) Warning Notice for Failure to Disclose
- ☐ (BG) Warning Notice for Failure to Submit Business Plan
- ☐ Medical Exemption Approved _____ Signature

DATA ENTRY INSTRUCTIONS: *(Circle desired form to make instruction clear and check off appropriate boxes.)*

- ☐ Enter highlighted changes on BP-1 / BP-8
- ☐ Enter inventory on Amendment / Disclosure
- ☐ Inactivate Business *(Journal entry should be included.)*
- ☐ Other instructions: *(For example: Enter I Codes; Combine Businesses under one BP number; ...)*

(Business comments should be written on reverse side of DEIF, only.) See Reverse For Journal ☒

INSPECTOR TIMEKEEPING: I1 _____ I2 _____ I3 _____

K-5 (Emergency Information) _____ K-6 (Inventory) _____

K-7 (Business Plans) _____ K-8 (Site Map) _____

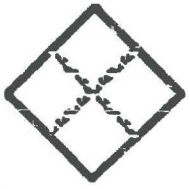
K-9 (Other Code Enforcement) _____ *(K-Codes are entered automatically.)*

STATUS:	Yes	No
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason: ____ Out of Business
____ Moved Location
____ No Hazardous Materials
____ Change of Ownership
____ Below Disclosure Level

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

_____



828 Permit No: _____

Area Covered by Placard:

_____

_____

_____

Data Entry Name: RM Data Entry Date: 6-8-93

F-970-B (Rev. 4/92)

BUSINESS EMERGENCY RESPONSE PLAN

BUSINESS NO. (213) 748-6138 BUSINESS NAME L.A. MEMORIAL COLISEUM AND SPORTS ARENA

BUSINESS ADDRESS 3939 So. Figueroa Street PHONE (213) 748-6138

Please answer the following questions clearly. Attachments are acceptable if additional space is needed:

NOTIFICATION PROCEDURES

In the event of a reportable hazardous materials or waste release, or threatened release, your business is required by State law to provide an immediate verbal report to:

THE LOS ANGELES CITY FIRE DEPARTMENT (LAFD): 911

THE STATE OFFICE OF EMERGENCY SERVICES (OES): 1 (800) 852-7550 or 1 (916) 427-4341

1. Who will notify LAFD and OES?

   Name Clayton Peet Title Fire Chief

   Name Angel Guerra Title Assistant Fire Chief

2. Does your business have an additional emergency response notification system? YES [x] NO [ ]

   If yes, explain:

   All superintendents are trained in emergency response notification.

3. Name the employee(s) responsible for responding to a release or spill:

   Name Clayton Peet Title Fire Chief

   Name Angel Guerra Title Assistant Fire Chief

   Name Donald Smith Title Electrical Superintendent

4. How will employee(s) become aware of a release or spill? (i.e., by alarm, leak detection device, etc.)

   Due to the small amounts of hazardous material on premises, all materials are stored in a designated area and are periodically checked visually.

5. Is there an evacuation plan for your business in the event of a spill or release? YES [X] NO [ ]

6. How will employees be evacuated from your facility?

   All employees will be notified over public address system and will be instructed as to appropriate exits and emergency procedures.

JUN 07 1993

MEDICAL ASSISTANCE

7. List two local emergency medical facilities that will be used:

Name of emergency medical facility:

Advantage Care

Address: 437 East Washington Blvd. Los Angeles, CA 90015 Phone: (213) 747-0634

Name of emergency medical facility:

Orthopedic Hospital

Address: 2400 South Flower Drive Los Angeles, CA 90007 Phone: (213) 742-1000

PREVENTION

(Actions your business will take to prevent a hazard from occurring.)

8. Describe the kinds of hazards associated with the hazardous materials present at your facility.

Freon and propane are the only materials stored on premises that could be hazardous. Propane could cause explosion.

9. What actions would your business take to prevent these hazards from occurring?

All materials are kept in a secured area with access limited to trained authorized personnel.

10. What are your safety and storage procedures?

Propane tanks are chained and locked in a cage outside the facility in a secured location. Freon is under lock and key in machine room accessible to engineer only.

MITIGATION (Reduce the Hazard.)

(Actions your business will take to lessen the harm or the damage to persons, property, or the environment, and prevent what has occurred from getting worse or spreading.)

11. What is the immediate response to a leak, spill, fire, explosion, or airborne release at your business?

First, evacuate area. Then call Fire Department and/or HAZ-MAT.

ABATEMENT (What You do to Stop the Hazard.)

12. How do you stop a release?

In all cases, a licensed qualified hazardous material disposal company would be called immediately.

13. How do you clean up a release?

Clean-up would be done by licensed qualified personnel.

14. How do you dispose of released materials?

By hiring disposal company licensed by City, County, or State.

EMPLOYEE TRAINING

Employee training is designed to teach employees about the following categories:

PART 1 - SAFETY: Handling Hazardous Materials Safely
PART 2 - EMERGENCY CONTACT: Which Emergency Agencies to Contact
PART 3 - EMERGENCY EQUIPMENT AND SUPPLIES: Use of Emergency Cleanup Equipment and Supplies
PART 4 - EVACUATION: Evacuation Procedures

PART 1: SAFETY

15. Describe the training NEW employees receive in handling and using the hazardous materials and waste that are part of your operation.

Any employees who would be required to handle any such hazardous materials would be instructed by their supervisor.

16. How often does REFRESHER training occur?

Annually.

17. How is this documented?

Documentation has not been kept in the past. As of now, we will be working on a system of recording documentation. Documentation will be kept in Operations' files.

18. Where is documentation kept?

PART 2: EMERGENCY CONTACT

19. Are all NEW employees trained to know which emergency response agencies to contact if an emergency occurs?

YES ☐ NO ☒

20. Who is assigned to contact the emergency response agencies?

Name Superintendent in charge Title _____

Name _____ Title _____

21. How often does REFRESHER training occur?

Annually.

22. How is it conducted?

As a seminar with some hands on training.

23. What is covered?

The location of fire hoses and fire extinguishers and proper usage of these items. Evacuation and emergency exits are also discussed.

PART 3: EMERGENCY EQUIPMENT AND SUPPLIES

24. How are NEW employees trained in the use of emergency equipment and supplies needed to stop spills, leaks, or fires?

They are not, all such incidents are to be referred to licensed trained personnel.

25. What kinds of equipment and supplies are they taught to use to stop the release?

N/A

26. How often is REFRESHER training conducted in the use of emergency equipment and supplies?

Annually.

27. Are drills ever conducted? YES ☐ NO ☒

PART 4: EVACUATION

28. Are new employees given initial training on evacuation procedures? YES ☒ NO ☐

29. How often is PEFRESHER training given on evacuation procedures?

Annually.

30. ***NOTE:*** Your business is required by State law to keep a copy of this Business Plan, including the inventory. Describe where this copy is located at your business?

In Operations' files.

SIGNATURE OF BUSINESS OWNER OR AUTHORIZED REPRESENTATIVE:

Clayton Leef

DATE: 6-1-93

(Rev. 8/89)

JUN 20 1991

INITIAL APPLICATION FOR A CERTIFICATE OF DISCLOSURE OF HAZARDOUS SUBSTANCES

F. 46

FOR OFFICE USE ONLY: LAFD # 047786-101-3 FD BUS # 21432-0 LOCATION CHANGE ___

FD	CLASS	MC	PC	PERIOD	AMOUNT	PAYMENT DATE	ED	DISTRICT
F	800	P	21	A 91	$ [illegible]	06-12-91	H	

INSTRUCTIONS: A NEW APPLICATION MUST BE SUBMITTED WHEN A BUSINESS MOVES TO A NEW LOCATION OR CHANGES OWNERSHIP. COMPLETE ALL ITEMS BELOW. SIGNATURES MUST BE INCLUDED. TYPE OR PRINT NEATLY. MAIL THE APPLICATION AND FEE TO THE CITY CLERK'S OFFICE. GOVERNMENT AGENCIES MUST FILE AN APPLICATION AND SUBMIT AN INVENTORY, BUT ARE FEE EXEMPT.

BUSINESS TAX ACCOUNT # ~~95-600194-4~~ 12552-40 SIC CODE # ~~8071~~ 7941

LEGAL NAME OF BUSINESS Los Angeles Memorial Coliseum

BUSINESS SITE ADDRESS 3911 So. Figueroa UNIT # ___

CITY Los Angeles STATE CA ZIP 90037

NAME OF BUSINESS OWNER Los Angeles Memorial Coliseum Commission PHONE 748-6136

NAME OF ON-SITE MANAGER SAME - Gregg Caniglia PHONE 748-6136 Ext 354

PRIMARY EMERGENCY CONTACT SAME - Clayton Peet 24 HR EMERGENCY PHONE [illegible]

ALTERNATE EMER. CONTACT SAME - Jerry Nielsen 24 HR EMERGENCY PHONE ___

DOING BUSINESS AS (DBA) Los Angeles Memorial Coliseum

BUSINESS MAILING ADDRESS 3911 So. Figueroa IN CARE OF Gregg Caniglia

NAME OF PROPERTY OWNER LA Coliseum Commission DUN & BRADSTREET # ---N/A---

MAILING ADDRESS 3911 So Figueroa LA 90037 PHONE ___

LIST ALL ADDITIONAL ADDRESSES THAT MAY BE USED TO REPORT AN EMERGENCY AT THIS SITE 3939 So. Figueroa Los Angeles, CA. 90037

BRIEFLY DESCRIBE HOW HAZARDOUS MATERIALS ARE USED IN YOUR BUSINESS: ___

PERMIT INFORMATION
IF YOUR BUSINESS HAS A PERMIT ISSUED FOR HAZARDOUS SUBSTANCES OR WASTES, LIST THE PERMIT NUMBER.

	PERMIT NUMBER
A. L.A. FIRE DEPT. (FIRE PERMIT)	
B. L.A. BUREAU OF SANITATION (INDUSTRIAL WASTE)	
C. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	
D. STATE HEALTH SERVICES (RADIOACTIVE MAT'L LICENSE)	
E. L.A. COUNTY HEALTH DEPT. (GENERATORS HAZARDOUS WASTE)	
F. E.P.A. IDENTIFICATION NO. (GENERATORS HAZARDOUS WASTE)	
G. E.P.A. IDENTIFICATION NO. (HAZARDOUS WASTE HAULER)	
H. E.P.A. IDENTIFICATION NO. (HAZARDOUS WASTE FACILITY-TSD)	
I. REGIONAL WATER QUALITY CONTROL BOARD	
J. CAL-OSHA (CARCINOGEN REGISTRATION)	
K. OTHER AGENCY (SPECIFY) ___	

IT IS UNLAWFUL FOR ANY PERSON TO KNOWINGLY VIOLATE ANY PROVISION OF THE FIRE CODE. I CERTIFY UNDER PENALTY OF PERJURY, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I AGREE TO COMPLY WITH ALL REGULATIONS, LAWS AND ORDINANCES PERTAINING TO OR RELATING TO THE ABOVE BUSINESS.

IF THE CITY DETERMINES THAT NO CERTIFICATE AND/OR FEE IS REQUIRED, I AUTHORIZE THE CITY CLERK TO REFUND THE TOTAL PAYMENT. I UNDERSTAND THAT NO REFUND CAN BE MADE WITHOUT A SIGNATURE.

APPROVED CERTIFICATE

[signature] General Manager 6-2-91
SIGNATURE OF BUSINESS OWNER OR AUTHORIZED REPRESENTATIVE/TITLE/ DATE

[signature] 5-31-91
SIGNATURE OF ON-SITE MANAGER DATE

FOR OFFICE USE ONLY:

RECEIVED BY INIT. [illegible] DATE 6/25/91

INSPECTORS I.D. 432 LAFD SIGNATURE Christopher Cooper DATE 7/2/91

MASTER CODE ~~8107~~ RAD VERIFIED 3-21-90 DATA ENTRY INIT. [illegible] DATE 7/11/91

...ARDOUS MATERIALS AND HAZARDOUS WASTE INVENTORY BUSINESS NO. _____ DATE _____ LAFD # _____ Page ____ of ____

COMPLETE A SEPARATE FORM FOR EACH BUILDING, OUTDOOR AREA, UNDERGROUND TANK OR ROOM WHERE HAZARDOUS MATERIALS OR WASTE ARE LOCATED AND SPECIFY THE LOCATION IN THIS BOX. READ ALL OF THE INSTRUCTIONS INCLUDED IN THIS PACKAGE AND PHOTOCOPY EXTRA COPIES OF THIS FORM BEFORE COMPLETING IT.

BUSINESS NAME COLISEUM ADDRESS 3911 S FIGUEROA

ROOM NAME OR NUMBER _____ BUILDING NAME, OUTDOOR AREA OR UNDERGROUND TANK NUMBER _____

(1) Chemical or Product name OXYGEN Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
80 (Circle) Lbs Gal Cu ft	160 (Circle) Lbs Gal Cu ft	J	1 ___ 2 ___ 3 ___ 4 * 5 ___	S ___ L ___ G *	1-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☒ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name ACETYLENE Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
50 (Circle) Lbs Gal Cu ft	150 (Circle) Lbs Gal Cu ft	J	1 ___ 2 ___ 3 * 4 * 5 ___	S ___ L ___ G *	3-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name GASOLINE Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
1000 (Circle) Lbs Gal Cu ft	1000 (Circle) Lbs Gal Cu ft	C	1 ___ 2 ___ 3 * 4 ___ 5 ___	S ___ L * G ___	UT	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

Rev. 5/89

FOR OFFICE USE ONLY: Insp. ID 432 Insp. Init CAC Date 7-2-91 Data Entry Init [illegible] Date 6-25-91

...MATERIALS AND HAZARDOUS WASTE INVENTO... BUSINESS NO. _____ DATE _____ LAFD # _____ Page ____ of ____

COMPLETE A SEPARATE FORM FOR EACH BUILDING, OUTDOOR ... IN THIS BOX. READ ALL OF THE INSTRUCTIONS INCLUDED ... TANK OR ROOM WHERE HAZARDOUS MATERIALS OR WASTE ARE LOCATED AND SPECIFY THE LOCATION ...E AND PHOTOCOPY EXTRA COPIES OF THIS FORM BEFORE COMPLETING IT.

BUSINESS NAME COLISEUM ADDRESS 3911 S FIGUEROA

ROOM NAME OR NUMBER _____ BUILDING NAME, OUTDOOR AREA OR UNDERGROUND TANK NUMBER _____

(1) Chemical or Product name DIESEL — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs Gal Cu ft: 200	(Circle) Lbs Gal Cu ft: 500	D	1 ___ 2 ___ 3 X 4 ___ 5 ___	S ___ L X G ___	1-B	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name DIESEL — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs Gal Cu ft: 55	(Circle) Lbs Gal Cu ft: 110	B	1 ___ 2 ___ 3 X 4 ___ 5 ___	S ___ L X G ___	1-B	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name PROPANE — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs Gal Cu ft: 75	(Circle) Lbs Gal Cu ft: ___	J	1 ___ 2 ___ 3 X 4 X 5 ___	S ___ L X G ___	3-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☒ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☒ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

Rev. 5/89

FOR OFFICE USE ONLY: Insp. ID 432 Insp. Init CAC Date 7-2-91 Data Entry Init [illegible] Date 6-25-91

REPORT NO. IHMS-500
RUN DATE = 02/16/1993

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

PAGE : 1
BUSINESS #: 021432-0
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL COLISEUM ADDR: 03911 S FIGUEROA ST
BUS OWNER : LOS ANGELES MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : SMG - GEORGE GONZALEZ EXT 355 PH #: 213-748-6136
EMERG CONTACT : SMG - CLAYTON PEET PH #: (
ALT EMERG CONTACT: SMG - JERRY NIELSEN PH #:

BUS PLN RCVD: 0/ 0/ 0 INV VERIFIED: 07/02/19
SIC CODE :
NO OF EMPLOYEES : 0
SQ FT OF FACILITY : 0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST	MAXIMUM QUANTITY AT ANY TIME MAX%	CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047786-001-3 NFPA-704:							PRODUCTS: 8
~~7~~	~~FERTILIZER~~				~~1,200.00 GA~~	~~ABOVEGROUND TANK~~	~~REACTIVE~~	~~L~~	~~OXIDIZERS~~
~~2~~	~~ACETYLENE~~				~~50.00 CF~~	~~GAS CYLINDER~~	FIRE	G	FLAMMABLE MAT
	ACETYLENE			0%	74-86-2		PRESSURE		
~~5~~	~~PROPANE~~				~~75.00 GA~~	~~GAS CYLINDER~~	FIRE	L	FLAMMABLE MAT
	PROPANE			0%	74-98-6		PRESSURE		
~~6~~	~~GASOLINE~~				~~30.00 GA~~	~~METAL CONTAINERS~~	FIRE	L	FLAMMABLE MAT
	GASOLINE			0%	8006-61-9				
~~3~~	~~DIESEL~~				200.00 GA	ABOVEGROUND TANK	FIRE	L	COMBUSTIBLE LIQ
~~4~~	~~DIESEL~~				55.00 GA	DRUMS, CARBOYS	FIRE	L	COMBUSTIBLE LIQ
~~8~~	~~MOTOR OIL~~				~~110.00 GA~~	~~DRUMS, CARBOYS~~	FIRE	L	COMBUSTIBLE LIQ
	MOTOR OIL			0%		" "	"	"	16
~~1~~	~~OXYGEN~~				80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS
	OXYGEN			0%	7782-44-7				

INACTIVATE

Inactivate

LOCATION: UNDERGROUND TANK /UT 1		LAFD#: 047786-002-3 NFPA-704:							PRODUCTS:
1	GASOLINE				1,000.00 GA	UNDERGROUND TANK	FIRE	L	FUEL/OIL
	GASOLINE			0%	8006-61-9				

INSP SIG: _____ INSP DATE: 3/4/23 BUS REP SIG: _____ DATE: 3/4/23 DE SIG: _____ DATE: 3/4/23

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 3-4-93 NEW USER ON BACK ☐

INSPECTOR NAME Plain INSPECTOR NO. 432

BUSINESS NO. 21432-0 FS DIST. 46

BUSINESS NAME L.A. ~~Coliseum~~ Coliseum

ACTION:

- ☐ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☐ (DA) Approval of Business Plan
- ☒ (VA) Inventory Verified By on Site Inspection 3-4-93 Date
- ☐ (EG) Warning Letter for Failure to Disclose
- ☐ (BG) Warning Letter for Failure to Submit Business Plan
- ☐ Medical Exemption Approved _____ Signature
- ☐ Amendment

DATA ENTRY INSTRUCTIONS: Inactivate all materials with a RED line through it.

All See Dief dated 2-18-93

Sic Code = 7941

See Reverse For Journal ☐

STATUS CHANGE:

	Yes	No
Business Plan Required	☒	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason: ____ Out of Business

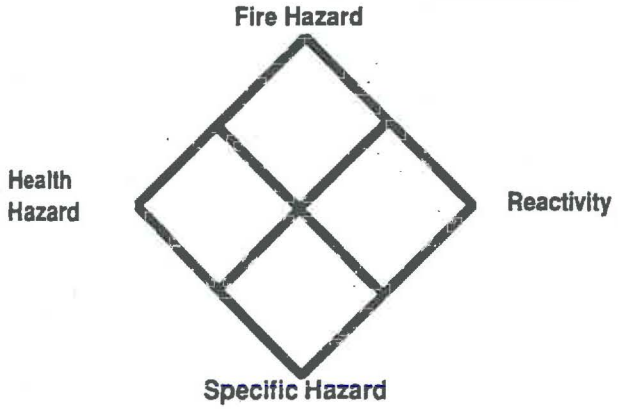
____ Moved Location

____ No Hazardous Materials

____ Change of Ownership

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

_____



828 Permit No: _____

Area Covered by Placard: _____

_____

_____

Data Entry Name: Teresa L Data Entry Date: 3/11/93

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 2-18-93 NEW USER ON BACK ☐

INSPECTOR NAME Gregory Plain INSPECTOR NO. 432

BUSINESS NO. 21432-0 FS DIST. _____

BUSINESS NAME L.A. Memorial Coliseum

ACTION:

- ☒ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☐ (DA) Approval of Business Plan
- ☐ (VA) Inventory Verified By on Site Inspection _____ Date
- ☒ (EG) Warning Letter for Failure to Disclose
- ☒ (BG) Warning Letter for Failure to Submit Business Plan
- ☐ Medical Exemption Approved _____ Signature
- ☐ Amendment

DATA ENTRY INSTRUCTIONS:

Met Mr. Johnson left BP and Site Map
This is an I-2 Inspection
Come Back 2-23-93 to make Full Inspection
wasn't able to do it on 2-18-93 because of
Torrential Rains.

See Reverse For Journal ☐

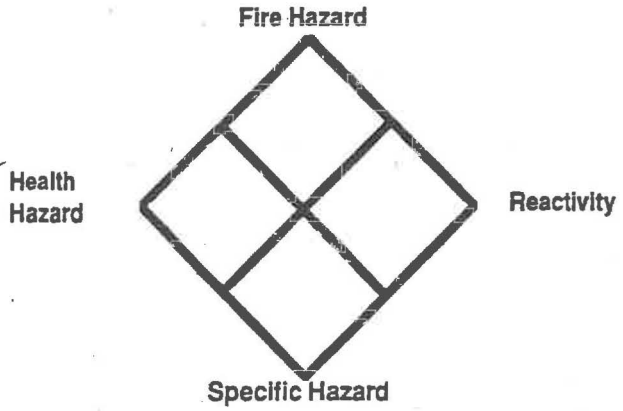
STATUS CHANGE:

	Yes	No
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason: ____ Out of Business
____ Moved Location
____ No Hazardous Materials
____ Change of Ownership

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

_____



828 Permit No: _____

Area Covered by Placard: _____

Data Entry Name: _____ Data Entry Date: 2/18/93

Continued:

RENEWALS

LAFD No.: _____-___-_ City Clerk No.: _____-__

BUSINESS NAME: _____ Inspector No.: _____

Business Address: _____

City: _____ Zip Code: _____

☐ Amend/Comment ☐ Out of Business ☐ Other

Comments: _____

BP Pack Mailed By: _____ Amend Form Mailed By: _____

NEW USER

Business No.: _____

LAFD No.: _____

Inventory Verified ☐

Add to File Date: _____

Primary Situs Address	Mailing Address

Business Name:	Business Phone No.: ( )
Business Owner Name:	Business Owner Phone No.: ( )
On-Site Manager Name:	On-Site Manager Phone No.: ( )
Property Owner Name:	Property Owner Phone No.: ( )
Secondary Situs Addresses	Property Owner Address

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021432-0 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL COLISEUM

Address Where Business Is Conducted: 3911 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

_____

_____

_____

Legal Business Owner Name: LOS ANGELES MEMORIAL COLISEUM COMMISSION WORK PHONE NUMBER (213) 748-6136

On-Site Manager: SMG - GEORGE GONZALEZ EXT 355 (213) 748-6136

EMERGENCY PHONE NUMBER (24-HOUR)

Emergency Contact: SMG - CLAYTON PEET

Alternate Emergency Contact: SMG - JERRY NIELSEN

Standard Industrial ~~Classification (SIC)~~ Code of Business: ____

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3911 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

_____

_____

Number of Employees: _____ Square Footage of Facility: _____

_____ _____ _____

Signature of Legal Business Owner/Authorized Representative Title Date

****

Office Use Only Insp. I.D.:_____ Date:_____ D/E I.D.:_____ Date:_____ TS:_____

BUS. NAME: LOS ANGELES MEMORIAL COLISEUM ADDR: 03911 S FIGUEROA ST BUS. PLN RCVD: 0/ 0/ 0 INVENTORY VERIFIED: 07/02/9

SEQ	EXT HAZ	PRODUCT OR WASTE NAME	(RAW) (WASTE)	MAXIMUM QUANTITY AT ANY TIME	STORAGE TYPES	HEALTH & PHYS HAZ	STATE	HAZARD CLASS	INGREDIENTS	MAX %	CAS NO.
LOCATION:				LAFD#: 047786-001-3							PRODUCTS: 8
7		FERTILIZER	R	1,200.00 GA	ABOVEGROUND TANK	REACTIVE	L	OXIDIZERS			
2		ACETYLENE	R	50.00 CF	GAS CYLINDER	FIRE PRESSURE	G	FLAMMABLE MAT			
5		PROPANE	R	75.00 GA	GAS CYLINDER	FIRE PRESSURE	L	FLAMMABLE MAT			
6		GASOLINE	R	30.00 GA	METAL CONTAINERS	FIRE	L	FLAMMABLE MAT			
3		DIESEL	R	200.00 GA	ABOVEGROUND TANK	FIRE	L	COMBUSTIBLE LIQ			
4		DIESEL	R	55.00 GA	DRUMS, CARBOYS	FIRE	L	COMBUSTIBLE LIQ			
8		MOTOR OIL	R	110.00 GA	DRUMS, CARBOYS	FIRE	L	COMBUSTIBLE LIQ			
1		OXYGEN	R	80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS			
LOCATION:		UNDERGROUND TANK /UT 1		LAFD#: 047786-002-3							PRODUCTS: 1
1		GASOLINE	R	1,000.00 GA	UNDERGROUND TANK	FIRE	L	FUEL/OIL			

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG:_____ DATE:_____

CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5
1200 GA.	GA.	75 GA.	GA.	GA.
200		30		
55		2804		
110				
1412 28			84	
		168		
		84		
		1000		
80 CU FT.	CU.FT.	50 CU FT	CU FT	CU FT
200		375		
500 lbs	lbs	lbs	lbs	lbs
500				

REPORT NO. IHMS-500
RUN DATE = 06/27/91

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

BUSINESS #: 021432-0
FIRST IN: 46

BUS. NAME: LOS ANGELES MEMORIAL COLISEUM ADDR: 03911 S FIGUEROA ST BUS. PLN RCVD: 0/ 0/ 0 INVENTORY VERIFIED: 0/ 0/

SEQ	EXT HAZ	PRODUCT OR WASTE NAME	(RAW) (WASTE)	MAXIMUM QUANTITY AT ANY TIME	STORAGE TYPES	HEALTH & PHYS HAZ	STATE	HAZARD CLASS	INGREDIENTS	MAX %	CAS NO.
LOCATION:				LAFD#: 047786-001-3							PRODUCTS: 8
7		FERTILIZER FETILIZER	R	1,200.00 GA	ABOVEGROUND TANK	REACTIVE	L	OXIDIZERS			
2		ACETYLENE	R	50.00 CF	GAS CYLINDER	FIRE PRESSURE	G	FLAMMABLE MAT			
5		PROPANE	R	75.00 GA	GAS CYLINDER	FIRE PRESSURE	L	FLAMMABLE MAT			
6		GASOLINE	R	30.00 GA	METAL CONTAINERS	FIRE	L	FLAMMABLE MAT			
3		DIESEL	R	200.00 GA	ABOVEGROUND TANK	FIRE	L	COMBUSTIBLE LIQ			
4		DIESEL	R	55.00 GA	DRUMS, CARBOYS	FIRE	L	COMBUSTIBLE LIQ			
8		MOTOR OIL	R	110.00 GA	DRUMS, CARBOYS	FIRE	L	COMBUSTIBLE LIQ			
1		OXYGEN	R	80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS			
LOCATION:		UNDERGROUND TANK /UT 1		LAFD#: 047786-002-3							PRODUCTS: 1
1		GASOLINE	R	1,000.00 GA	UNDERGROUND TANK	FIRE	L	FUEL/OIL			

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE: 7/3/91 DE SIG: _____ DATE:_____

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
FREON	1	400	800		L
-		0	0		
-					
GLYCOL	1	506			L
-		0	0		
-					
PROPANE					
PROPANE	1	420			G
-		0	0		
-					

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
ACETYLENE(In-active) Inactivated on: 02/11/1994	1	50	150		G
-		0	0		
CHLORINE TABLETS(In-active) Inactivated on: 05/01/2001	1	10	150		L
-		0	0		
CORROSION INHIBITOR(In-active) Inactivated on: 02/11/1994	1	10	40		L

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date:
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
OXYGEN(In-active) Inactivated on: 02/11/1994	1	80	160		G
-		0	0		
ZEOLITE(In-active) Inactivated on: 02/11/1994	1	50	75		L
FREON	1	400	800		L
- -		0	0		

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
GLYCOL	1	506			L
-		0	0		
-					
PROPANE					
PROPANE	1	420			G
-		0	0		
-					
-		0	0		
ACETYLENE(In-active) Inactivated on: 02/11/1994	1	50	150		G

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
CHLORINE TABLETS(In-active) Inactivated on: 05/01/2001	1	10	150		L
-		0	0		
CORROSION INHIBITOR(In-active) Inactivated on: 02/11/1994	1	10	40		L
-		0	0		
OXYGEN(In-active) Inactivated on: 02/11/1994	1	80	160		G

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0021197
Business Name: LOS ANGELES MEMORIAL SPORTS
Business Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037
Storage Address: 3939 S FIGUEROA ST

Date:
Last Inspection Date: 06/15/2011
Permit Date: 07/01/2011
RFI Request No:
RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
-		0	0		
ZEOLITE(In-active) Inactivated on: 02/11/1994	1	50	75		L

FIRE PREVENTION BUREAU TECHNICAL SECTION
200 NORTH MAIN STREET, RM 1780
LOS ANGELES, CA 90012

LOS ANGELES FIRE DEPARTMENT
Los Angeles Certified Unified Program Agency
(213) 978-3680

Los Angeles Fire Department
Data Entry Instruction Form (DEIF)

FOR INTERNAL USE ONLY

Date:	~~3/28/2011~~ 4/14/11	**New Business:**	[ ]
Default Inspector:	LOVE, HOWARD	**Fire Station/Census:**	046
Facility ID;	FA0021197	**Insp District:**	425
Facility Name:	LOS ANGELES MEMORIAL SPORTS ARENA		
Site Address:	3939 S FIGUEROA ST LOS ANGELES, CA 90037		

[ ] VERIFIED FACILITY PHONE NUMBER
PHONE NO: (213) 765-6301

Account Info
Account Outstanding Balance:
Number of Outstanding Invoices: 0

[ ] VERIFIED MAILING ADDRESS
MAILING ADDRESS: 3939 S FIGUEROA ST
(INVOICES/PERMITS) LOS ANGELES, CA 90037

ACTIVE PROGRAMS:

PE	PE DESCRIPTION	UNITS
MAIN_SITE		
1001	PR0113408 | HW GEN, 0-5 EMPLOYEES	
4501	PR0013897 | HAZ MAT INVENTORY 4 TO 7 CHEMICALS	

[ ] VERIFIED OWNER INFO
OWNER NAME: MEMORIAL, L A
OWNER MAILING ADDRESS: 3939 S FIGUEROA ST
LOS ANGELES, CA
PHONE: (213) 748-6136

DATA ENTRY INSTRUCTION(S): Check Appropriate Boxes

[~~]~~ **Changes On BP 01**
[ ] **UST Abandon Sheets**
[ ] **Changes On Attached CUPA Form(s)**
[~~]~~ **Changes On BP 08**
[ ] **UST Installation Sheets**
[ ] **Enter Inventory on Attached CUPA Forms**

[ ] **Inactive Business** *Journal Entry should Be Included*

Reason:

[ ] **Other Instruction:** *For Examples: Combine Business Under One BP Number*

Data Entry Name: Gayle Date: 4-19-2011

CITY OF LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3880

BUSINESS INFORMATION

Printed on: 3/28/2011

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.
Business Number: FA0021197 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LOS ANGELES MEMORIAL SPORTS ARENA

Business Site Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037

Mailing Address 3939 S FIGUEROA ST
LOS ANGELES, CA 90037

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

 # OF EMPLOYEES:

CONTACT	WORK #	24 HOUR #	PAGER #
Owner Name: MEMORIAL, L A	(213) 748-6136	-	-
On-Site Manager: ~~PAT LYNCH~~ John Sandberg	—	-	-
Emergency Contact: ~~PAT LYNCH~~			
2nd Emergency Contact: WATCH ONE SECURITY			

X _____ Manager 4/14/11
Signature of Legal Business Owner/Authorized Representative **Title** **Date**

Business Plan has been reviewed and approved: _____

OFFICE USE ONLY Insp. ID: 425 Date: 4/14/11 D/E ID: _____ Date: _____ TS: _____

CITY OF LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3880

Business No : FA0021197
First In : 046
District # : 425

Hazardous Materials System
BP-8: Computer Listing of Inventory
SubmittedInspection Responsibility: VIU

Printed on: 3/28/2011

Business Name	: LOS ANGELES MEMORIAL SPORTS ARENA	**Business Address**	: 3939 S FIGUEROA ST
Business Owner	: MEMORIAL, L A		LOS ANGELES, CA 90037
On-Site Manager	: PAT LYNCH	**Phone #**	:
Emergency Contact	: PAT LYNCH	**Phone #**	
Alt Emergency Contact	: WATCH ONE SECURITY	**Phone #**	
Next Inspection Date:	: 6/15/2011	**SIC Code**	: 7941
# of Employees	:	**Permit Date**	: 12/14/2010

Total Chemicals: 3

LOCATION:

Chemicals at Location: 3

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
FREON	PURE	400.00 POUNDS	LIQUID	

Container:| CYLINDER |

Ingredients	*CAS #*
FREON	75456

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
GLYCOL	PURE	506.00 GALLONS	LIQUID	

Container:| ABOVEGROUND TANK |

Ingredients	*CAS #*
GLYCOL	107211

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
PROPANE	PURE	420.00 GALLONS	LIQUID	

Container:| CYLINDER |

Ingredients	*CAS #*
PROPANE	74986

My signature indicates that I have verified and agreed with the types and quantities of hazadous materials at this address.

[FA0021197] CHEMICAL COUNT: 3

INSP SIG: _____ INSP. DATE: 4/14/11

BUS. REP. SIG: _____ DATE: 4/14/11

Data Date: 3/28/2011

City of LOS ANGELES
CALIFORNIA

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Los Angeles Fire Department
Data Entry Instruction Form (DEIF)

Date:	6/20/2006	**New Business**	☐
Inspector's / Member:	OLIVIERI	**Fire Station:**	046
Facility ID:	FA0021197	**HM Inspector No.:**	EE0000140
Business Name:		**UST Inspector No.:**	
LOS ANGELES MEMORIAL SPORTS ARENA		**Occ. Jurisdiction:**	046

DATA ENTRY INSTRUCTION: *Check appropriate boxes*

- ☒ **Changes on BP-1**
- ☐ **Changes on BP-8**
- ☐ **Changes on Attached CUPA Form(s)**
- ☐ **UST Adandon Sheets**
- ☐ **UST Installation Sheets**
- ☐ **Enter Inventory On Attached CUPA Forms**
- ☐ **Inactive Business** *Journal Entry Should Be Included*

  Reason:
- ☐ **Other Instruction:** *For Examples: Combine Business Under One BP Number*

Data Entry Name: [signature]

Date: 6-27-06

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

BUSINESS INFORMATION

Printed on: 05/09/2005

INSTRUCTIONS : Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: FA0021197 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business is Conducted : 3939 S FIGUEROA ST, LOS ANGELES, CA 90037
Mailing Address : 3939 S FIGUEROA ST LOS ANGELES, CA 90037

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

Number of Employees: 0
SIC Code : 7941

Dun & Bradstreet Number:

CONTACT	WORK #	24 HOUR #	PAGER #	OTHER #
Owner Name: MEMORIAL, L A	(213) 765-6301			
On-Site Manager: Pat Lynch				
Emergency Contact: "				
2nd Emergency Contact: "Watch One" SECURITY (Top of Ramp off Hooper)				

Signature of Legal Business Owner/Authorized Representative | Title | Date

Business Plan has been reviewed and approved: _____

Office Use Only Insp. ID: _____ Date: _____ D/E ID: _____ Date: _____ TS: _____

City of LOS ANGELES
CALIFORNIA

LOS ANGELES
FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Hazardous Materials System
BP-8: Computer Listing of Inventory Submitted
Inspection Responsibility: VIU

Business No : FA0021197
First In : 046
Block # :

Printed on: 5/9/2005

Business Name : LOS ANGELES MEMORIAL SPORTS ARENA
Business Owner : MEMORIAL, L A
On-Site Manager :
Emergency Contact :
Alt Emergency Contact:

Business Address: 3939 S FIGUEROA ST,
LOS ANGELES, CA 90037
Phone # :
Phone # : Ext:
Phone # : Ext:

Last Inspection Date: 05/01/2001
SIC Code : 7941
# of Employees :
Sq. Ft. of Facility : N/A
Permit Date : 09/26/2000

LOCATION:

NFPA-704: N/A

Products: 3

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
FREON	PURE	**400.00 POUNDS**	LIQUID	

Hazard Class: NONFLAMMABLE COMPRESSED GAS
Storage Type: CYLINDER

Ingredients	*Max %*	*CAS #*
FREON		75456

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
GLYCOL	PURE	**506.00 GALLONS**	LIQUID	

Hazard Class:
Storage Type: ABOVEGROUND TANK

Ingredients	*Max %*	*CAS #*
GLYCOL		107211

Chemical Name	*HM Type*	*Max Quantity on Hand*	*State*	*Fed Haz Catg.*
PROPANE	PURE	**420.00 GALLONS**	LIQUID	

Hazard Class: FLAMMABLE MATERIAL
Storage Type: CYLINDER

Ingredients	*Max %*	*CAS #*
PROPANE		74986

05/01/2001 My signature indicates that I have verified and agreed with the types and quantities of hazadous materials at this address

INSP SIG: _____ INSP. DATE: _____ BUS. REP. SIG: _____ DATE: _____ DE. SIG.: _____ DATE _____

ANNUAL INVENTORY UPDATE

LOS ANGELES MEMORIAL SPORTS ARENA

3939 S. FIGUEROA ST.
LOS ANGELES, CA. 90037

Facility ID: 021197-8

*California Health and Safety Code Chapter 6.95 requires all handlers of hazardous materials to **annually update** their hazardous material inventory with the local administering agency on or before **March 1.** The Los Angeles Fire Department, as that agency, processes and maintains business emergency response plans and inventories for businesses within the City.*

Annual Inventory Update (choose one method):

☐ **Modify existing business information and inventory** (attached to this letter) **OR**

☐ **Submit entire inventory** (complete business information and chemical inventory forms) **OR**

☑ **Complete Certification Statement** (below) stating that the most recent inventory (attached to this letter) is complete, accurate and up to date.

The Certification Statement can be used if all of the following apply:

1. *Business has previously filed the hazardous materials inventory report*
2. *Company official signs **Certification Statement** and attests to:*
   a) *most recently submitted inventory is complete, accurate and up to date*
   b) *no change in quantity of hazardous materials in that inventory*
   c) *all hazardous materials are listed in that inventory*
3. *Business is not subject to EPCRA (Emergency Planning and Community Right to Know Act) reporting requirements*

CERTIFICATION STATEMENT:

I certify that I am the business owner or officially designated representative of the business listed at the top of this form.

I certify that the information contained in the hazardous materials inventory most recently submitted to the Los Angeles Fire Department CUPA is complete, accurate, and up to date.

And that there has been no change in the quantity of hazardous materials reported in the most recently submitted inventory.

And that no hazardous materials subject to inventory requirements are being handled that are not listed on the most recently submitted inventory.

Pat Lyon — 12/23/02
Name *Date*

General Manager
Title

Facility ID: 021197-8

RETURN TO:

City of Los Angeles Fire Department
Fire Prevention Bureau - Technical Section
200 N. Main Street, Room 970
Los Angeles, CA 90012

CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-8080

Hazardous Materials System

BP-8: Computer Listing of Inventory Submitted

Inspection Responsibility: CI

Business No: 021197-8
First In: 046

Printed on: 11/13/2002

Business Name:	LOS ANGELES MEMORIAL SPORTS ARENA	Business Address:	3939 S FIGUEROA ST	Last Inspection Date:	05/01/2001
Business Owner:	L MEMORIAL		LOS ANGELES, 90037	SIC Code:	7941
On-Site Manager:	PATRICK LYNCH	Phone #:	(213)765-6301	# of Employees:	35
Emergency Contact:		Phone #:	( ) -	Sq. Ft. of Facility:	0
Alt Emerg Contact:		Phone #:	( ) -	Permit Date:	09/16/2002

Location:

NFPA-704: - -

Products: 3

Chemical Name	Haz Mat Type	Max Quantity on Hand	Fed Haz Catg.	State
FREON	PURE	400 POUNDS	CHRONIC HEALTH, PRESSURE RELEASE	LIQUID

Hazard Class: NONFLAMMABLE COMPRESSED GAS — *Storage Type:* CYLINDER

Ingredients	Max %	CAS #
FREON	0	00000000754

Chemical Name	Haz Mat Type	Max Quantity on Hand	Fed Haz Catg.	State
GLYCOL Liquid	PURE	506 GALLONS	CHRONIC HEALTH, PRESSURE RELEASE	LIQUID

Hazard Class: NONFLAMMABLE ~~COMPRESSED GAS~~ — *Storage Type:* ABOVEGROUND

Ingredients	Max %	CAS #
GLYCOL	0	00000001072

Chemical Name	Haz Mat Type	Max Quantity on Hand	Fed Haz Catg.	State
PROPANE	PURE	420 GALLONS	FIRE, PRESSURE RELEASE	LIQUID

Hazard Class: FLAMMABLE MATERIAL — *Storage Type:* CYLINDER

Ingredients	Max %	CAS #
PROPANE	0	00000000749

My signature indicates that I have verified and agreed with the types and quantities of hazardous materials at this address

INSP SIG: _____ INSP DATE: _____ BUS. REP SIG: _____ DATE: _____ DE SIG: _____ DATE: _____

Total Pages: 1

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

Business Information

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-8080

Printed on: 05/22/2001

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: 021197-8 This is your current business plan number. This number must appear on all business plan forms!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business is Conducted: 3939 S FIGUEROA ST
LOS ANGELES, 90037

Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations: _____

Number of Employees: 35 **Dun & Bradstreet Number:** - -

SIC Code: 7941

CONTACT	WORK #	24 HOUR #	PAGER #
Owner Name: L A MEMORIAL	(213)748-6136	( ) -	( ) -
On-Site Manager: PATRICK LYNCH		( ) -	
Emergency Contact:	( ) -	( ) -	( ) -
2nd Emergency Contact:	( ) -	( ) -	( ) -

****

Signature of Legal Business Owner/Authorized Representative **Title** **Date**

Business Plan has been reviewed and approved: _____

****

Office Use Only Insp. ID: _____ Date: _____ D/E ID: _____ Date: _____ TS: _____

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-8080

Hazardous Materials System

BP-8: Computer Listing of Inventory Submitted

Inspection Responsibility: CI

Business No: 021197-8
First In: 046

Printed on: 05/22/2001

Business Name:	LOS ANGELES MEMORIAL SPORTS ARENA	Business Address:	3939 S FIGUEROA ST	Last Inspection Date:	05/01/2001
Business Owner:	L MEMORIAL		LOS ANGELES, 90037	SIC Code:	7941
On-Site Manager:	PATRICK LYNCH	Phone #:	(213)765-6301	# of Employees:	35
Emergency Contact:		Phone #:	( ) -	Sq. Ft. of Facility:	0
Alt Emerg Contact:		Phone #:	( ) -	Permit Date:	09/26/2000

Chemical & Ingredients	WST	Max Quantity on Hand		Storage Types	Fed Haz Category	State	Hazard Class
		Max %		CAS #			
Location:	**NFPA-704: - -**						**Products: 3**
FREON	PURE	400	POUNDS	CYLINDER	CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
FREON		0%		0000000075456			
GLYCOL	PURE	506	GALLONS	ABOVEGROUND	CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
GLYCOL		0%		0000000107211			
PROPANE	PURE	420	GALLONS	CYLINDER	FIRE	LIQUID	FLAMMABLE MATERIAL
PROPANE		0%		0000000074986			

My signature indicates that I have verified and agreed with the types and quantities of hazardous materials at this address

INSP SIG: _____ INSP DATE: _____ BUS. REP SIG: _____ DATE: _____ DE SIG: _____ DATE: _____

Total Pages: 1

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 05-01-01 NEW USER ☐

INSPECTOR'S NAME SMITH, TIM INSPECTOR NO. 425

BUSINESS NO. 21197-8 FS DIST. _____

BUSINESS NAME _____

ACTION: *(Automatically entered by Data Entry)*

- ☐ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☑ (DA) Approval of Business Plan *(Date)* 05/01/01
- ☑ (VA) Inventory Verified By On-Site Inspection *(Date)* _____
- ☐ (EG) Warning Notice for Failure to Disclose
- ☐ (BG) Warning Notice for Failure to Submit Business Plan
- ☐ Medical Exemption Approved *(Signature)* _____

DATA ENTRY INSTRUCTIONS: *(Circle desired form to make instruction clear and check off appropriate boxes)*

- ☑ Enter Highlighted Changes on BP-1 / BP-8
- ☐ Enter Inventory On Amendment / Disclosure
- ☐ Inactivate Business *(Journal Entry Should Be Included)*
- ☐ Other Instructions: *(For example: Enter I Codes; Combine Businesses under one BP number)*

OCC. JURISDICTION Ci See Reverse For Journal ☑

INSPECTOR TIMEKEEPING: I1 _____ I2 _____ I3 _____

K-5 (Emergency Information) _____ K-6 (Inventory) _____

K-7 (Business Plans) _____ K-8 (Site Map) _____

K-9 (Other Code Enforcement) _____ *(K-Codes are entered automatically)*

STATUS:	YES	NO
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason:
- ☐ Out of Business
- ☐ Moved Location
- ☐ No Hazardous Materials
- ☐ Change of Ownership
- ☐ Below Disclosure Level

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

LOS ANGELES MEMORIAL COLISEUM • SPORTS ARENA •

PATRICK T. LYNCH
GENERAL MANAGER
213 765-6301
3939 S. FIGUEROA STREET
LOS ANGELES, CA 90037
TEL: (213) 765-6374
FAX: (213) 747-2279
E-MAIL: PLYNCH@LACOLISEUM.COM
213 407-4314

Data Entry Name: [illegible] Data Entry Date: 5/22/01

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

Business Information

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-8080

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: 021197-8 This is your current business plan number. This number must appear on all business plan forms!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business is Conducted: 3939 S FIGUEROA ST
LOS ANGELES, 90037

Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

Number of Employees: 0 35 **Dun & Bradstreet Number:** - -

SIC Code: 7941

CONTACT	WORK #	24 HOUR #	PAGER #
Owner Name: L A MEMORIAL	(213)748-6136 213 765-6301	( ) -	( ) -
On-Site Manager: PATRICK T. LYNCH	( ) - (213) 765-6301	( ) -	( ) -
Emergency Contact:	( ) -	( ) -	( ) -
2nd Emergency Contact:	( ) -	( ) -	( ) -

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-8080

Hazardous Materials System

BP-8: Computer Listing of Inventory Submitted

Inspection Responsibility: CI

Business No: 021197-8
First In: 046

Business Name:	LOS ANGELES MEMORIAL SPORTS ARENA	Business Address:	3939 S FIGUEROA ST	Last Inspection Date:	03/02/1993
Business Owner:	L MEMORIAL		LOS ANGELES, 90037	SIC Code:	7941
On-Site Manager:		Phone #:	( ) -	# of Employees:	0
Emergency Contact:		Phone #:	( ) -	Sq. Ft. of Facility:	0
Alt Emerg Contact:		Phone #:	( ) -		

Chemical & Ingredients	WST	Max Quantity on Hand	Max %	Storage Types	CAS #	Fed Haz Category	State	Hazard Class
Location:	**NFPA-704: - -**							**Products: 4**
~~CHLORINE TABLETS~~ Delete	PURE	10 GALLONS		OTHER		CHRONIC HEALTH	LIQUID	CLASS A POISON
CHLORINE			0%		0000007782505			
FREON	PURE	400 POUNDS		CYLINDER		CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
FREON			0%		0000000075456			
GLYCOL	PURE	506 GALLONS		ABOVEGROUND		CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
GLYCOL			0%		0000000107211			
PROPANE	PURE	420 GALLONS		CYLINDER		FIRE	LIQUID	FLAMMABLE MATERIAL
PROPANE			0%		0000000074986			

My signature indicates that I have verified and agreed with the types and quantities of hazardous materials at this address

INSP SIG: _____ INSP DATE: _____ BUS. REP SIG: X Robert Liu DATE: X 4/3/01 DE SIG: CF DATE: 5/22/01

Total Pages: 1

Robert Liu

ANNUAL INVENTORY UPDATE

LOS ANGELES MEMORIAL SPORTS ARENA

3939 S. FIGUEROA ST.
LOS ANGELES, CA. 90037

Facility ID: 021197-8

*California Health and Safety Code Chapter 6.95 requires all handlers of hazardous materials to **annually update** their hazardous material inventory with the local administering agency on or before **March 1.** The Los Angeles Fire Department, as that agency, processes and maintains business emergency response plans and inventories for businesses within the City.*

Annual Inventory Update (choose one method):

☐ **Modify existing business information and inventory** (attached to this letter) **OR**

☐ **Submit entire inventory** (complete business information and chemical inventory forms) **OR**

☒ **Complete Certification Statement** (below) stating that the most recent inventory (attached to this letter) is complete, accurate and up to date.

The Certification Statement can be used if all of the following apply:

1. *Business has previously filed the hazardous materials inventory report*
2. *Company official signs **Certification Statement** and attests to:*
   a) *most recently submitted inventory is complete, accurate and up to date*
   b) *no change in quantity of hazardous materials in that inventory*
   c) *all hazardous materials are listed in that inventory*
3. *Business is not subject to EPCRA (Emergency Planning and Community Right to Know Act) reporting requirements*

CERTIFICATION STATEMENT:

I certify that I am the business owner or officially designated representative of the business listed at the top of this form.

I certify that the information contained in the hazardous materials inventory most recently submitted to the Los Angeles Fire Department CUPA is complete, accurate, and up to date.

And that there has been no change in the quantity of hazardous materials reported in the most recently submitted inventory.

And that no hazardous materials subject to inventory requirements are being handled that are not listed on the most recently submitted inventory.

Clayton Peet
Name

2/26/01
Date

Director of Operations
Title

Facility ID: 021197-8

RETURN TO:

City of Los Angeles Fire Department
Fire Prevention Bureau - Technical Section
200 N. Main Street, Room 970
Los Angeles, CA 90012

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-6003
http://www.cityofla.org/dept/LAFD

Hazardous Materials System

BP-8: Computer Listing of Inventory Submitted

Inspection Responsibility: CI

Business No: 021197-8
First In: 046

Business Name:	LOS ANGELES MEMORIAL SPORTS ARENA	Business Address:	3939 S FIGUEROA ST	Last Inspection Date:	03/02/1993
Business Owner:	L MEMORIAL		LOS ANGELES, 90037	SIC Code:	7941
On-Site Manager:		Phone #:	( ) -	# of Employees:	0
Emergency Contact:		Phone #:	( ) -	Sq. Ft. of Facility:	0
Alt Emerg Contact:		Phone #:	( ) -		

Chemical & Ingredients	WST	Max Quantity on Hand	Max %	Storage Types	CAS #	Fed Haz Category	State	Hazard Class
Location:	**NFPA-704:**							**Products: 4**
CHLORINE TABLETS	PURE	10 GALLONS		OTHER		CHRONIC HEALTH	LIQUID	CLASS A POISON
CHLORINE			0%		0000007782505			
FREON	PURE	400 POUNDS		CYLINDER		CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
FREON			0%		0000000075456			
GLYCOL	PURE	506 GALLONS		ABOVEGROUND		CHRONIC HEALTH	LIQUID	NONFLAMMABLE COMPRESSED
GLYCOL			0%		0000000107211			
PROPANE	PURE	420 GALLONS		CYLINDER		FIRE	LIQUID	FLAMMABLE MATERIAL
PROPANE			0%		0000000074986			

My signature indicates that I have verified and agreed with the types and quantities of hazardous materials at this address

INSP SIG: _____ INSP DATE: _____ BUS. REP SIG: _____ DATE: _____ DE SIG: _____ DATE: _____

Total Pages: 1

CITY OF LOS ANGELES
CALIFORNIA

MAYOR
RICHARD J. RIORDAN

Business Information

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 485-6003
http://www.cityofla.org/dept/LAFD

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: 021197-8 This is your current business plan number. This number must appear on all business plan forms!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business is Conducted: 3939 S FIGUEROA ST
LOS ANGELES, 90037

Mailing Address: 3939 S FIGUEROA ST
LOS ANGELES, CA 90037

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations: _____

Number of Employees: 0 **Dun & Bradstreet Number:** - -

SIC Code: 7941

CONTACT	WORK #	24 HOUR #	PAGER #
Owner Name: L A MEMORIAL	(213)748-6136	( ) -	( ) -
On-Site Manager:	( ) -	( ) -	( ) -
Emergency Contact:	( ) -	( ) -	( ) -
2nd Emergency Contact:	( ) -	( ) -	( ) -

REPORT NO: IHMSR500
RUN DATE : 11/14/1995

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED
INSPECTION RESPONSIBILITY: CENT INDUSTRIAL

PAGE : 1
BUSINESS #: 021197-8
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL SPORTS ARENA
BUS OWNER : L.A. MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : GEORGE GONZALEZ - SMG
EMERG CONTACT : CLAYTON PERRY - SMG
ALT EMERG CONTACT: JERRY NIELSEN

ADDR: 03939 S FIGUEROA ST
PH #: 213-748-6136
PH #:
PH #:

BUS PLN REVW: 00/00/0000 INV VERIFIED: 02/23/1993
SIC CODE : 7941
NO OF EMPLOYEES : 0
SQ FT OF FACILITY : 0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST MAX%	MAXIMUM QUANTITY AT ANY TIME / CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047657-001-0 NFPA-704:						PRODUCTS: 4
7		CHLORINE TABLETS		10.00 GA	METAL CONTAINERS	CHRONIC	L	CLASS A POISON
		* CHLORINE	0%	7782-50-5				
1		PROPANE		420.00 GA	GAS CYLINDER	FIRE	L	FLAMMABLE MAT
		PROPANE	0%	74-98-6		PRESSURE		
4		GLYCOL		506.00 GA	ABOVEGROUND TANK	CHRONIC	L	NONFLAM COMP GAS
		GLYCOL	0%	107-21-1		PRESSURE		
5		FREON		400.00 LB	GAS CYLINDER	CHRONIC	L	NONFLAM COMP GAS
		FREON	0%	75-45-6		PRESSURE		

MY SIGNATURE INDICATES THAT I HAVE VERIFIED AND AGREED WITH THE TYPES AND QUANTITIES OF HAZARDOUS MATERIALS AT THIS ADDRESS

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG:_____ DATE:_____

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021197-8 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business Is Conducted: 3939 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

_____

_____

_____

Legal Business Owner Name: L.A. MEMORIAL COLISEUM COMMISSION WORK PHONE NUMBER (213) 748-6136

On-Site Manager: GEORGE GONZALEZ - SMG (213) 748-6136

EMERGENCY PHONE NUMBER (24-HOUR)

Emergency Contact: CLAYTON PERRY - SMG -

Alternate Emergency Contact: JERRY NIELSEN -

Standard Industrial Classification (SIC) Code of Business: 7941

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3939 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

_____

_____

Number of Employees: _____ Square Footage of Facility: _____

_____ _____ _____

Signature of Legal Business Owner/Authorized Representative Title Date

****

Office Use Only Insp. I.D.:_____ Date:_____ D/E I.D.:_____ Date:_____ TS:_____

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 10-31-95 NEW USER ☐

INSPECTOR'S NAME CARPENTER INSPECTOR NO. 444

BUSINESS NO. 21197-8 FS DIST. 2,14,16,17,21,25,33,46

BUSINESS NAME Los Angeles Memorial Sports Arena

ACTION: *(Automatically entered by Data Entry)*

- ☐ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☑ (DA) Approval of Business Plan *(Date)* _____
- ☐ (VA) Inventory Verified By On-Site Inspection *(Date)* _____
- ☐ (EG) Warning Notice for Failure to Disclose
- ☑ (BG) Warning Notice for Failure to Submit Business Plan
- ☐ Medical Exemption Approved *(Signature)* _____

DATA ENTRY INSTRUCTIONS: *(Circle desired form to make instruction clear and check off appropriate boxes)*

- ☑ Enter Highlighted Changes on BP-1 / (BP-8)
- ☐ Enter Inventory On Amendment / Disclosure
- ☐ Inactivate Business *(Journal Entry Should Be Included)*
- ☐ Other Instructions: *(For example: Enter I Codes; Combine Businesses under one BP number)*

OCC. JURISDICTION CINDY/TM See Reverse For Journal ☑

INSPECTOR TIMEKEEPING: I1 .1 I2 _____ I3 _____

K-5 (Emergency Information) _____ K-6 (Inventory) _____

K-7 (Business Plans) _____ K-8 (Site Map) _____

K-9 (Other Code Enforcement) _____ *(K-Codes are entered automatically)*

STATUS:	YES	NO
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason:
- ☐ Out of Business
- ☐ Moved Location
- ☐ No Hazardous Materials
- ☐ Change of Ownership
- ☐ Below Disclosure Level

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

_____

828 Permit No.: _____

Area Covered by Placard:

_____

_____

Fs# 46 Insp. CC

DATA ENTRY INSPECTOR REFERRAL FORM

BUS #: 21197-8 LAFD #: _____ CC #: _____

( ) NEEDS DISCLOSURE APPROVAL

( ) NEEDS VERIFICATION FOR POSSIBLE CHANGE OF LOCATION

* ADDRESS #1: _____ BUS #: _____

* ADDRESS #2: _____ BUS #: _____

( ) NEEDS VERIFICATION FOR POSSIBLE OWNERSHIP CHANGE

* OWNER #1: _____ BUS #: _____

* OWNER #2: _____ BUS #: _____

( ) NO INVENTORY WAS SUBMITTED WITH DISCLOSURE APPLICATION

( ) PLEASE COMPLETE HIGHLIGHTED AREAS ON INITIAL APPLICATION

( ) PLEASE REVIEW & APPROVE THE AMENDMENT

( ) POSSIBLE AMENDMENT. COMPARE WITH INITIAL APPLICATION.

( ) RECORDS IN TAPS & IHMS ARE INCONSISTENT. NEEDS VERIFICATION FOR STATUS OF BUSINESS.

* STATUS IN TAPS: _____

* STATUS IN IHMS: _____

( ) NEEDS VERIFICATION OF CITY CLERK'S REFERRAL/RENEWAL

* REASON FOR REFERRAL: _____

(✓) OTHER (EXPLAIN): We are updating IHMS System. This file needs a Sic Code or Sec. Jurisdiction

FROM: Myra DATE: 10/26/95

REPORT NO. IHMS-500
RUN DATE = 03/04/1993

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

BUSINESS #: 021197-8
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL SPORTS ARENA
BUS OWNER : L.A. MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : GEORGE GONZALEZ - SMG
EMERG CONTACT : CLAYTON PERRY - SMG
ALT EMERG CONTACT: JERRY NIELSEN

ADDR: 03939 S FIGUEROA ST
PH #: 213-748-6136
PH #:
PH #:

BUS PLN RCVD: 0/ 0/ 0
SIC CODE :
NO OF EMPLOYEES :
SQ FT OF FACILITY :

INV VERIFIED: 02/23/19
7941
0
0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST MAX%	MAXIMUM QUANTITY AT ANY TIME / CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047657-001-0 NFPA-704:						PRODUCTS: &
7		CHLORINE TABLETS		10.00 GA	METAL CONTAINERS	CHRONIC	L	CLASS A POISON
		* CHLORINE	0%	7782-50-5				
1		PROPANE		420.00 GA	GAS CYLINDER	FIRE	L	FLAMMABLE MAT
		PROPANE	0%	74-98-6		PRESSURE		
3		ACETYLENE		50.00 CF	GAS CYLINDER	FIRE	G	FLAMMABLE MAT
		ACETYLENE	0%	74-86-2		PRESSURE		
6		ZEOLITE		50.00 GA	DRUMS, CARBOYS	CHRONIC	L	OTHER REG MATERIA
8		CORROSION INHIBITOR		10.00 GA	DRUMS, CARBOYS	ACUTE CHRONIC	L	IRRITANTS
2		OXYGEN		80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS
		OXYGEN	0%	7782-44-7				
4		GLYCOL		506.00 GA	ABOVEGROUND TANK	CHRONIC	L	NONFLAM COMP GAS
		GLYCOL	0%	107-21-1		PRESSURE		
5		FREON		400.00 LB	GAS CYLINDER	CHRONIC	L	NONFLAM COMP GAS
		FREON	0%	75-45-6		PRESSURE		

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____

DATE: 10/6/93

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021197-8 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business Is Conducted: 3939 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

Legal Business Owner Name: L.A. MEMORIAL COLISEUM COMMISSION — WORK PHONE NUMBER (213) 748-6136

On-Site Manager: GEORGE GONZALEZ - SMG — (213) 748-6136

Emergency Contact: CLAYTON PERRY - SMG — EMERGENCY PHONE NUMBER (24-HOUR) _____

Alternate Emergency Contact: JERRY NIELSEN

Standard Industrial Classification (SIC) Code of Business: ____

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3939 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

Number of Employees: _____ Square Footage of Facility: _____

Signature of Legal Business Owner/Authorized Representative — Title — Date

****

Office Use Only Insp. I.D.:____ Date:____ D/E I.D.:____ Date:____ TS:____

DATA ENTRY INSTRUCTION FORM (DEIF)

DATE 2-23-93 NEW USER ☐

INSPECTOR NAME Plains INSPECTOR NO. 432

BUSINESS NO. 21197 - 0 FS DIST. 46

BUSINESS NAME Sports Arena

ACTION:

- ☒ (EJ) Disclosure Amendment or Additional Applications Given or Sent
- ☐ (BI) Notification of Business Plan Requirements
- ☐ (DA) Approval of Business Plan
- ☒ (VA) Inventory Verified By on Site Inspection _____ Date
- ☐ (EG) Warning Letter for Failure to Disclose
- ☐ (BG) Warning Letter for Failure to Submit Business Plan
- ☐ Medical Exemption Approved _____ Signature

DATA ENTRY INSTRUCTIONS:

See Reverse For Journal ☐

INSPECTOR TIMEKEEPING: I1 1.5, I2 _____, I3 _____,
K-5 (Emergency Information) .2, K-6 (Inventory) 1.0,
K-7 (Business Plans) .3, K-8 (Site Map) _____,
K-9 (Other Code Enforcement) _____

STATUS CHANGE:	Yes	No
Business Plan Required	☑	☐
Government Agency	☐	☑
Cancel Certificate	☐	☑

Reason: ____ Out of Business
____ Moved Location
____ No Hazardous Materials
____ Change of Ownership
____ Below Disclosure Level

704 DATA: Write out in linear format (i.e., 2-3-2 COR)

828 Permit No: _____

Area Covered by Placard: _____

Data Entry Name: _____ Data Entry Date: 3-4-93

Data Mgmt/rev. DEIF WITH 704/091792

REPORT NO. IHMS-500
RUN DATE = 02/16/1993

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

BUSINESS #: 021197-8
FIRST IN : 46
BLOCK # :

BUS NAME : LOS ANGELES MEMORIAL SPORTS ARENA ADDR: 03939 S FIGUEROA ST
BUS OWNER : L.A. MEMORIAL COLISEUM COMMISSION
ON-SITE MANAGER : GEORGE GONZALEZ - SMG PH #: 213-748-6136
EMERG CONTACT : CLAYTON PERRY - SMG PH #:
ALT EMERG CONTACT: JERRY NIELSEN PH #

BUS PLN RCVD: 0/ 0/ 0 INV VERIFIED: 07/02/19
SIC CODE :
NO OF EMPLOYEES : 0
SQ FT OF FACILITY : 0

SEQ	EXT HAZ	MATERIAL DESCRIPTION / INGREDIENTS	WST MAX%	MAXIMUM QUANTITY AT ANY TIME / CAS NO.	STORAGE TYPES	HEALTH & PHYS HAZ	ST	HAZARD CLASS
LOCATION:		LAFD#: 047657-001-0 NFPA-704:						PRODUCTS: 8
7		CHLORINE TABLETS		10.00 GA	METAL CONTAINERS	CHRONIC	L	CLASS A POISON
		* CHLORINE	0%	7782-50-5				
1		PROPANE		420.00 GA	GAS CYLINDER	FIRE	L	FLAMMABLE MAT
		PROPANE	0%	74-98-6		PRESSURE		
3		ACETYLENE		50.00 CF	GAS CYLINDER	FIRE	G	FLAMMABLE MAT
		ACETYLENE	0%	74-86-2		PRESSURE		
6		ZEOLITE		50.00 GA	DRUMS, CARBOYS	CHRONIC	L	OTHER REG MATERIAL
8		CORROSION INHIBITOR		10.00 GA	DRUMS, CARBOYS	ACUTE CHRONIC	L	IRRITANTS
2		OXYGEN		80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS
		OXYGEN	0%	7782-44-7				
4		GLYCOL		506.00 GA	ABOVEGROUND TANK	CHRONIC	L	NONFLAM COMP GAS
		GLYCOL	0%	107-21-1		PRESSURE		
5		FREON		400.00 LB	GAS CYLINDER	CHRONIC	L	NONFLAM COMP GAS
		FREON	0%	75-45-6		PRESSURE		

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG:_____ DATE:_____

FS-46

INITIAL APPLICATION FOR A CERTIFICATE OF DISCLOSURE OF HAZARDOUS SUBSTANCES

(Rev. 8/89)

JUN 20 19[illegible]

FOR OFFICE USE ONLY: LAFD # 47657-001-0 FD BUS # 21197-8 LOCATION CHANGE ___

FD	CLASS	MC	PC	PERIOD	AMOUNT	PAYMENT DATE	ED	DISTRICT
F	800	P	21	A 91	$ [illegible]	06-12-91	S	

INSTRUCTIONS: A NEW APPLICATION MUST BE SUBMITTED WHEN A BUSINESS MOVES TO A NEW LOCATION OR CHANGES OWNERSHIP. COMPLETE ALL ITEMS BELOW. SIGNATURES MUST BE INCLUDED. TYPE OR PRINT NEATLY. MAIL THE APPLICATION AND FEE TO THE CITY CLERK'S OFFICE. GOVERNMENT AGENCIES MUST FILE AN APPLICATION AND SUBMIT AN INVENTORY, BUT ARE FEE EXEMPT.

BUSINESS TAX ACCOUNT # ~~95-600144~~ 12554-42 SIC CODE # 690161

LEGAL NAME OF BUSINESS LOS ANGELES [illegible]

BUSINESS SITE ADDRESS 3939 So FIGUEROA UNIT # ___

CITY Los Angeles STATE CA. ZIP [illegible]

NAME OF BUSINESS OWNER [illegible] PHONE [illegible]

NAME OF ON-SITE MANAGER [illegible] PHONE [illegible]

PRIMARY EMERGENCY CONTACT [illegible] 24 HR EMERGENCY PHONE [illegible]

ALTERNATE EMER. CONTACT [illegible] 24 HR EMERGENCY PHONE ___

DOING BUSINESS AS (DBA) [illegible]

BUSINESS MAILING ADDRESS 3939 So FIGUEROA IN CARE OF [illegible]

NAME OF PROPERTY OWNER [illegible] DUN & BRADSTREET # ___-N/A-___

MAILING ADDRESS 3939 So FIGUEROA L.A. 90037 PHONE ___

LIST ALL ADDITIONAL ADDRESSES THAT MAY BE USED TO REPORT AN EMERGENCY AT THIS SITE 3911 So FIGUEROA Los Angeles CA 90037

BRIEFLY DESCRIBE HOW HAZARDOUS MATERIALS ARE USED IN YOUR BUSINESS: ___

PERMIT INFORMATION
IF YOUR BUSINESS HAS A PERMIT ISSUED FOR HAZARDOUS SUBSTANCES OR WASTES, LIST THE PERMIT NUMBER.

	PERMIT NUMBER
A. L.A. FIRE DEPT. (FIRE PERMIT)	
B. L.A. BUREAU OF SANITATION (INDUSTRIAL WASTE)	
C. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	
D. STATE HEALTH SERVICES (RADIOACTIVE MAT'L LICENSE)	
E. L.A. COUNTY HEALTH DEPT. (GENERATORS HAZARDOUS WASTE)	
F. E.P.A. IDENTIFICATION NO. (GENERATORS HAZARDOUS WASTE)	
G. E.P.A. IDENTIFICATION NO. (HAZARDOUS WASTE HAULER)	
H. E.P.A. IDENTIFICATION NO. (HAZARDOUS WASTE FACILITY-TSD)	
I. REGIONAL WATER QUALITY CONTROL BOARD	
J. CAL-OSHA (CARCINOGEN REGISTRATION)	
K. OTHER AGENCY (SPECIFY) ___	

IT IS UNLAWFUL FOR ANY PERSON TO KNOWINGLY VIOLATE ANY PROVISION OF THE FIRE CODE. I CERTIFY UNDER PENALTY OF PERJURY, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I AGREE TO COMPLY WITH ALL REGULATIONS, LAWS AND ORDINANCES PERTAINING TO OR RELATING TO THE ABOVE BUSINESS.

IF THE CITY DETERMINES THAT NO CERTIFICATE AND/OR FEE IS REQUIRED, I AUTHORIZE THE CITY CLERK TO REFUND THE TOTAL PAYMENT. I UNDERSTAND THAT NO REFUND CAN BE MADE WITHOUT A SIGNATURE.

APPROVED CERTIFICATE

[signature] / GENERAL MGR 6-2-91
SIGNATURE OF BUSINESS OWNER OR AUTHORIZED REPRESENTATIVE/TITLE/ DATE

[signature] 5-31-91
SIGNATURE OF ON-SITE MANAGER DATE

FOR OFFICE USE ONLY:

RECEIVED BY INIT. [illegible] DATE 6-25-91

INSPECTORS I.D. 432 LAFD SIGNATURE [signature] DATE 7-2-91

MASTER CODE ~~3001~~ BAO VERIFIED 3-21-90 DATA ENTRY INIT. [illegible] DATE 7/5/91

...ES AND HAZARDOUS WASTE INVENTORY BUSINESS NO. _____ DATE _____ LAFD # _____ Page ____ of ____

COMPLETE A SEPARATE FORM FOR EACH BUILDING, OUTDOOR AREA, UNDERGROUND TANK OR ROOM WHERE HAZARDOUS MATERIALS OR WASTE ARE LOCATED AND SPECIFY THE LOCATION IN THIS BOX. READ ALL OF THE INSTRUCTIONS INCLUDED IN THIS PACKAGE AND PHOTOCOPY EXTRA COPIES OF THIS FORM BEFORE COMPLETING IT.

BUSINESS NAME SPORTS ARENA ADDRESS 3939 S FIGUEROA

ROOM NAME OR NUMBER _____ BUILDING NAME, OUTDOOR AREA OR UNDERGROUND TANK NUMBER _____

(1) Chemical or Product name PROPANE — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs (Gal) Cu ft: 420	(Circle) Lbs (Gal) Cu ft: 840	J	1 ___ 2 ___ 3 X 4 X 5 ___	S ___ L * G ___	3-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☒ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name OXYGEN — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs Gal (Cu ft): 80	(Circle) Lbs Gal (Cu ft): 160	J	1 ___ 2 ___ 3 ___ 4 X 5 ___	S ___ L ___ G X	1-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☒ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name ACETYLENE — Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs Gal (Cu ft): 50	(Circle) Lbs Gal (Cu ft): 150	___	1 ___ 2 ___ 3 X 4 X 5 ___	S ___ L ___ G X	3-A	365

(9) Hazardous Chemical Ingredients & percentage of each — (10) CAS Numbers of each ingredient

_____ % _____
_____ % _____
_____ % _____

(11) Storage Pressure: Above Standard ☒ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

Rev. 5/89
FOR OFFICE USE ONLY: Insp. ID 432 Insp. Init [illegible] Date 7-2-91 Data Entry Init [illegible] Date 6-25-91

HAZARDOUS MATERIALS AND HAZARDOUS WASTE INVENTORY BUSINESS NO. _____ DATE _____ LAFD # _____ Page ____ of ____

COMPLETE A SEPARATE FORM FOR EACH BUILDING, OUTDOOR AREA, UNDERGROUND TANK OR ROOM WHERE HAZARDOUS MATERIALS OR WASTE ARE LOCATED AND SPECIFY THE LOCATION IN THIS BOX. READ ALL OF THE INSTRUCTIONS INCLUDED IN THIS PACKAGE AND PHOTOCOPY EXTRA COPIES OF THIS FORM BEFORE COMPLETING IT.

BUSINESS NAME SPORTS ARENA ADDRESS 3939 S FIGUEROA

ROOM NAME OR NUMBER _____ BUILDING NAME, OUTDOOR AREA OR UNDERGROUND TANK NUMBER _____

(1) Chemical or Product name CHLORINE TABLETS Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs / Gal / Cu ft: 10	(Circle) Lbs / Gal / Cu ft: 150	A	1 2 3 4 5	S L G	5A	365

(9) Hazardous Chemical Ingredients & percentage of each:
- Cl_2 (CHLORINE) 20%
- NON HAZARDOUS - %
- INGREDIENTS 80%

(10) CAS Numbers of each ingredient

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name CORROSION INHIBITOR Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs / Gal / Cu ft: 10	(Circle) Lbs / Gal / Cu ft: 40	B	1 2 3 4 5	S L G	___	365

(9) Hazardous Chemical Ingredients & percentage of each:
- SODIUM NITRATE 20%
- ORGANIC INHIBITORS 80%
- _____ %

(10) CAS Numbers of each ingredient

(11) Storage Pressure: Above Standard ☐ Standard ☒ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☒ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

(1) Chemical or Product name _____ Check if waste ☐

(1A) Check if Extremely Hazardous ☐ (1B) Check one: Pure ☐ or Mixture ☐

(2) Maximum amount at any time	(3) Total annual amount	(4) Storage Type	(5) Health & Physical Hazards	(6) Phys. State	(7) Hazard Class	(8) Number of days on site
(Circle) Lbs / Gal / Cu ft: _____	(Circle) Lbs / Gal / Cu ft: _____	___	1 2 3 4 5	S L G	___	___

(9) Hazardous Chemical Ingredients & percentage of each:
- _____ %
- _____ %
- _____ %

(10) CAS Numbers of each ingredient

(11) Storage Pressure: Above Standard ☐ Standard ☐ Below Standard ☐

(12) Storage Temp: Above Ambient ☐ Ambient ☐ Below Ambient ☐ Cryogenic ☐

Waste only: (13) State waste Code ___ (14) Treatment & Disposal ___ ___ ___

Rev. 5/89

FOR OFFICE USE ONLY: Insp. ID 432 Insp. Init CRC Date 7-2-91 Data Entry Init _____ Date 6-25-91

7-2-1991

DATA ENTRY INSTRUCTION FORM

Date: [redacted]1991
Inspector ID: 432
Inspector Name: C. Cooper

INSPECTOR ACTIONS

Date	7-2		
Field Hrs			
Office Hrs	.25		

TOTALS:
Field Hrs.: 6
Office Hrs.: .25
TOTAL HRS.: .25

New User (Back) ☐
Post Review ☐
Division 8 Renewals (Back) ☐

DATA ENTRY INSTRUCTION

Type: XC Action: A
Type: _____ Action: _____
Type: _____ Action: _____

Business No: 21197-8 LAFD No.: 047657-001-0

7-2 - 1991 Please Enter

1. All Comments:
2. All Red Entries on B.P.-8.

☐ Hazmat increased from 801 to 810 levels See Reverse ☐

INSPECTION RESULTS (BP-9)

INSPECTION ACTION CODES (Circle One):

FA = Accept Plan - Field
FR = Accept Plan with Deficiency Letter
CP = Not Inspected, O.K. to Invoice
DA = Accept Plan - Desk Review
DR = Accept Plan Desk Review with Deficiency Letter
PA = Post Review Approved
FX = No Business Plan Required (Check Box Below)
FO = Out of Business - Field Insp
DO = Out of Business - Desk Review

BUSINESS NO.: 21197-8 **BUSINESS NAME:** L.A. MEMORIAL COLISEUM COMMISSION

Review/Inspection Date: 7-2- 1991 340-C No.: _____ 340-C Date: _____

INSPECTION JOURNAL (Include Name of Person You Met With and Date):
7-2 - 1991
REVIEWED FILE/APPROVED DISCLOSURE

See Reverse ☐

☐ No Invoice Required - PQ No. of Employees _____ Square Footage _____

If Inspection Action is "FX", Check One Below:

☐ Exemption (Explain)
☐ Hazmat Reduced to 801 level
☐ Retail Sales
☐ (A) Bus. No longer contains Hazmat (Inactive)

If Inspection Action is "FO" or "DO", Check One :

☐ (B) Out of business
☐ (C) Business Moved to Another Location
☐ (D) Business Ownership Change
☐ (I) Other (Explain in Inspection Journal)

Data Entry Name: [signature] Data Entry Date: 7/5/91

DATA ENTRY INSTRUCTION FORM

Date: 5-31- 1991
Inspector ID: 432
Inspector Name: C. Cooper

INSPECTOR ACTIONS

Date	5-31		
Field Hrs	1		
Office Hrs	.25		

TOTALS:
Field Hrs.: 1
Office Hrs.: .25
TOTAL HRS.: 1.25

New User (Back)
Post Review
Division 8 Renewals (Back)

DATA ENTRY INSTRUCTION

Type: V Action: A
Type: _____ Action: _____
Type: _____ Action: _____

Business No: 21197-8 LAFD No.: 047657-001-0
5-31 - 1991 Please Enter

1. All Comments:
2. ~~All Red Entries on B.P.-8.~~

☐ Hazmat increased from 801 to 810 levels See Reverse ☐

INSPECTION RESULTS (BP-8)

INSPECTION ACTION CODES (Circle One):

FA = Accept Plan - Field
FR = Accept Plan with Deficiency Letter
CP = Not Inspected, O.K. to Invoice
DA = Accept Plan - Desk Review
DR = Accept Plan Desk Review with Deficiency Letter
PA = Post Review Approved
FX = No Business Plan Required (Check Box Below)
FO = Out of Business - Field Insp
DO = Out of Business - Desk Revie

BUSINESS NO.: 21197-8 BUSINESS NAME: L.A. MEMORIAL COLISEUM COMMISSION

Review/Inspection Date: 5-31 1991 340-C No.: _____ 340-C Date: _____

INSPECTION JOURNAL (Include Name of Person You Met With and Date):
5-31 - 1991

MET WITH GENERAL MGR JERRY NIELSEN.
ASSISTED WITH DISCLOSURE FOR
SPORTS ARENA AND COLISEUM.
B10 LEVEL HAZMAT.
G.M. IS GOING TO FILE FOR EXEMPT
STATUS UNDER GVT. STATUS.

See Reverse ☐

☐ No Invoice Required - PQ No. of Employees _____ Square Footage _____

Inspection Action is "FX", Check One Below:

☐ Exemption (Explain)
☐ Hazmat Reduced to 801 level
☐ Retail Sales
☐ (A) Bus. No longer contains Hazmat (Inactive)

If Inspection Action is "FO" or "DO", Check One :

☐ (B) Out of business
☐ (C) Business Moved to Another Location
☐ (D) Business Ownership Change
☐ (I) Other (Explain in Inspection Journal)

Data Entry Name: [signature] Data Entry Date: 7/5/91

DATA ENTRY INSTRUCTION FORM

Date: 3-27-1991
Inspector ID: 432
Inspector Name: C. Cooper

INSPECTOR ACTIONS

Date	3-27		
Field Hrs	.5		
Office Hrs	.5		

TOTALS:
Field Hrs.: .5
Office Hrs.: .5
TOTAL HRS.: 1

New User (Back) ☐
Post Review ☐
Division 8 Renewals (Back) ☐

DATA ENTRY INSTRUCTION

Business No: 21197-8 LAFD No.: _____

Type: _____ Action: _____
Type: _____ Action: _____
Type: _____ Action: _____

3-27-1991 Please Enter

1. All Comments:
2. All Bad Entries on B.P.-8.

JERRY E. NIELSEN
ASST. GENERAL MANAGER

LOS ANGELES MEMORIAL COLISEUM COMMISSION
3939 S. FIGUEROA STREET
LOS ANGELES, CA 90037
(213) 748-6136
FAX: (213) 746-9346

MCA/SMG MANAGED FACILITIES

...ls See Reverse ☐

...TION RESULTS (BP-9)

...Plan - Desk Review
...Plan Desk Review
...ficiency Letter
PA = Post Review Approved

FX = No Business Plan Required (Check Box Below)
FO = Out of Business - Field Insp
DO = Out of Business - Desk Review

CP = Not Inspected, O.K. to Invoice

BUSINESS NO.: 21197-8 BUSINESS NAME: L.A. MEMORIAL ~~SPORTS~~ COLISEUM COMM.

Review/Inspection Date: 3-27 1991 340-C No.: _____ 340-C Date: _____

INSPECTION JOURNAL (Include Name of Person You Met With and Date):
3-27-1991

MET WITH JERRY E NIELSEN ASST GEN MGR.
INFORMED HIM THAT SPORTS ARENA IS A
HAZ MAT USER.
SERVED DISCLOSURE AND LONG B.P.

See Reverse ☐

☐ No Invoice Required - PQ No. of Employees _____ Square Footage _____

If Inspection Action is "FX", Check One Below:

- ☐ Exemption (Explain)
- ☐ Hazmat Reduced to 801 level
- ☐ Retail Sales
- ☐ (A) Bus. No longer contains Hazmat (Inactive)

If Inspection Action is "FO" or "DO", Check One :

- ☐ (B) Out of business
- ☐ (C) Business Moved to Another Location
- ☐ (D) Business Ownership Change
- ☐ (I) Other (Explain in Inspection Journal)

Data Entry Name: [illegible] Data Entry Date: 4/10/91

CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5
50 GA. 10 500 545	GA.	420 GA. 1455 1030 $1000...	GA.	10 GA. 455
80 CU FT. 200	CU.FT.	50 CU FT 375	CU FT	CU FT
400 lbs 400	lbs	lbs	lbs	lbs

Los Angeles Memorial Coliseum and Sports Arena
3939 S. FIGUEROA STREET, LOS ANGELES, CALIFORNIA 90037-1292 (213) 748-6138 FAX: (213) 746-9346

June 3, 1991

Mr. Elias Martinez
City Clerk
P.O. Box 30626
Terminal Annex
Los Angeles, CA 90030

Dear Mr. Martinez:

Enclosed are applications for a certificate of disclosure of hazardous substances for the Los Angeles Memorial coliseum and the Los Angeles Memorial Sports Arena.

We are requesting an exemption of fees for the application based upon the fact they are both publicly owned buildings. I've enclosed a certification letter from Margaret Farnum, CAO (Chief Administrative Officer) for the Coliseum Commission.

Thank you for your assistance in this matter.

Sincerely,

Jerry E. Nielsen
Assistant General Manager

JEN/gd

Enclosures

c:\wp51\files\jerry\eliasmarti.cle

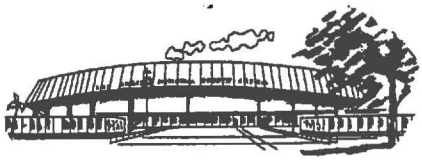
OFFICERS
N. MATTHEW GROSSMAN
PRESIDENT

WILLIAM R. ROBERTSON
VICE PRESIDENT

MARGARET U. FARNUM
CHIEF ADMINISTRATIVE OFFICER



SITE OF 1932 AND 1984
OLYMPICS ATHLETICS COMPETITION
OPENING & CLOSING CEREMONIES



SITE OF 1984 OLYMPICS
BOXING COMPETITION

STATE OF CALIFORNIA
JESSE A. BREWER
JAMES F. DICKASON
N. MATTHEW GROSSMAN

CHRISTY C. WALTERS
ALTERNATE

COUNTY OF LOS ANGELES
MICHAEL D. ANTONOVICH
DEANE DANA
EDMUND D. EDELMAN

KENNETH HAHN
ALTERNATE

CITY OF LOS ANGELES
ROBERT FARRELL
RICHARD J. RIORDAN
WILLIAM R. ROBERTSON

NATE HOLDEN
J. STANLEY SANDERS
ALTERNATES

LOS ANGELES MEMORIAL COLISEUM COMMISSION
COLISEUM, 3911 SO. FIGUEROA ST. • 747-7111 — SPORTS ARENA, 3939 S. FIGUEROA ST. • 748-6136
LOS ANGELES, CALIFORNIA 90037

June 3, 1991

Elias Martinez, City Clerk
Room 395, City Hall
Mail Stop 160
Los Angeles, California 90012

Dear Mr. Martinez

The Los Angeles Memorial Coliseum and Memorial Sports Arena are public facilities and are owned and operated by the Los Angeles Memorial Coliseum Commission, whose members are made up of representatives from the City of Los Angeles, County of Los Angeles, and the State of California.

Because the Stadium and Arena are governmental facilities, we are requesting a waiver of fees for the application for a Certificate of Disclosure of Hazardous Substance for these two facilities.

Sincerely,

Margaret Farnum

(Mrs.) Margaret Farnum
Chief Administrative Officer

gbl

BUSINESS INFORMATION

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied is accurate.

Business Plan Number: 021197-8 THIS IS YOUR CURRENT BUSINESS PLAN NUMBER. THIS NUMBER MUST APPEAR ON ALL BUSINESS PLAN FORMS!

Business Name: LOS ANGELES MEMORIAL SPORTS ARENA

Address Where Business Is Conducted: 3939 S FIGUEROA ST

LOS ANGELES CA 90037

Other On-Site Addresses: _____

_____

_____

_____

Legal Business Owner Name: L.A. MEMORIAL COLISEUM COMMISSION WORK PHONE NUMBER (213) 748-6136

On-Site Manager: GEORGE GONZALEZ - SMG (213) 748-6136

EMERGENCY PHONE NUMBER (24-HOUR)

Emergency Contact: CLAYTON PERRY - SMG _____

Alternate Emergency Contact: JERRY NIELSEN _____

Standard Industrial Classification (SIC) Code of Business: ____

Dun & Bradstreet Number: _ _-_ _ _-_ _ _ _

MAILING ADDRESS: 3939 S FIGUEROA ST ATTN: GEORGE GONZALEZ

LOS ANGELES CA 90037

Briefly describe the nature of the hazardous materials operations:

_____

_____

Number of Employees: _____ Square Footage of Facility: _____

_____ _____ _____

Signature of Legal Business Owner/Authorized Representative Title Date

****

Office Use Only Insp. I.D.:_____ Date:_____ D/E I.D.:_____ Date:_____ TS:_____

BUS. NAME: LOS ANGELES MEMORIAL SPORTS ARENA ADDR: 03939 S FIGUEROA ST BUS. PLN RCVD: 0/ 0/ 0 INVENTORY VERIFIED: 07/02/9

SEQ	EXT HAZ	PRODUCT OR WASTE NAME	(RAW) (WASTE)	MAXIMUM QUANTITY AT ANY TIME	STORAGE TYPES	HEALTH & PHYS HAZ	STATE	HAZARD CLASS	INGREDIENTS	MAX %	CAS NO.
LOCATION:				LAFD#: 047657-001-0							PRODUCTS: 8
7		CHLORINE TABLETS	R	10.00 GA	METAL CONTAINERS	CHRONIC	L	CLASS A POISON			
1		PROPANE	R	420.00 GA	GAS CYLINDER	FIRE PRESSURE	L	FLAMMABLE MAT			
3		ACETYLENE	R	50.00 CF	GAS CYLINDER	FIRE PRESSURE	G	FLAMMABLE MAT			
6		ZEOLITE	R	50.00 GA	DRUMS, CARBOYS	CHRONIC	L	OTHER REG MATERIAL			
8		CORROSION INHIBITOR	R	10.00 GA	DRUMS, CARBOYS	ACUTE CHRONIC	L	IRRITANTS			
2		OXYGEN	R	80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS			
4		GLYCOL	R	506.00 GA	ABOVEGROUND TANK	CHRONIC PRESSURE	L	NONFLAM COMP GAS			
5		FREON	R	400.00 LB	GAS CYLINDER	CHRONIC PRESSURE	L	NONFLAM COMP GAS			

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE:_____ DE SIG:_____ DATE:_____

REPORT NO. IHMS-500
RUN DATE = 06/27/91

HAZARDOUS MATERIALS SYSTEM
BP-8: COMPUTER LISTING OF INVENTORY SUBMITTED

BUSINESS #: 021197-8
FIRST IN: 46

BUS. NAME: LOS ANGELES MEMORIAL SPORTS ARENA ADDR: 03939 S FIGUEROA ST BUS. PLN RCVD: 0/ 0/ 0 INVENTORY VERIFIED: 0/ 0/ 0

SEQ	EXT HAZ	PRODUCT OR WASTE NAME	(RAW) (WASTE)	MAXIMUM QUANTITY AT ANY TIME	STORAGE TYPES	HEALTH & PHYS HAZ	STATE	HAZARD CLASS	INGREDIENTS	MAX %	CAS NO.
LOCATION:				LAFD#: 047657-001-0						PRODUCTS:	8
7		CHLORINE TABLETS	R	10.00 GA	METAL CONTAINERS	CHRONIC	L	CLASS A POISON			
1		PROPANE	R	420.00 GA	GAS CYLINDER	FIRE PRESSURE	L	FLAMMABLE MAT			
3		ACETYLENE	R	50.00 CF	5	FIRE PRESSURE	G	FLAMMABLE MAT			
6		ZEOLITE	R	50.00 GA	DRUMS, CARBOYS	CHRONIC	L	OTHER REG MATERIAL			
2		OXYGEN	R	80.00 CF	GAS CYLINDER	PRESSURE	G	NONFLAM COMP GAS			
4		GLYCOL	R	506.00 GA	ABOVEGROUND TANK	CHRONIC PRESSURE	L	NONFLAM COMP GAS			
5		FREON	R	400.00 LB	GAS CYLINDER	CHRONIC PRESSURE	L	NONFLAM COMP GAS			
8		CORROSION INHIBITOR	R	10.00 GA	DRUMS, CARBOYS	ACUTE CHRONIC	L	1-C			

INSP SIG:_____ INSP DATE:_____ BUS REP SIG:_____ DATE: 6/6/91 DE SIG: _____ DATE:_____

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Appendix I.3

Phase II ESA
Parking Lot 1

CONVERSE CONSULTANTS

Phase II Environmental Site Assessment Report

Parking Lot 1
Northeast Corner of West Martin Luther King Jr. Boulevard & South Vermont Avenue
Los Angeles, California

Converse Project No. 17-42-106-02

March 22, 2017

Prepared For:

University of Southern California
Real Estate & Asset Management
3335 South Figueroa Street
Unit G/UGW 110
Los Angeles, California 90089

Prepared By:

Converse Consultants
3176 Pullman Avenue
Suite 108
Costa Mesa, California 92626

Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

March 22, 2017

Mr. Brian C. League
Executive Director, Real Estate Development
Real Estate & Asset Management
University of Southern California
3335 S. Figueroa Street, Unit G/UGW 110
Los Angeles, California 90089

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**
Parking Lot 1 - Northeast Corner of West Marin Luther King Jr. Boulevard & South Vermont Avenue
Los Angeles, California
Converse Project No. 17-42-106-02

Mr. League:

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a *Phase II Environmental Site Assessment (Phase II ESA)* that was conducted at the referenced property.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact either Laura Tanaka at (714) 444-9660 or Michael Van Fleet at (909) 796-0544.

Sincerely,

CONVERSE CONSULTANTS

PROFESSIONAL GEOLOGIST
MICHAEL A. VAN FLEET
No. 7869
STATE OF CALIFORNIA

Michael Van Fleet, PG
Senior Geologist

Laura Tanaka
Principal Environmental Scientist

Dist: 1/Addressee via Electronic Mail (PDF Format)

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1.0 Introduction

This Report presents the results of the Converse Consultants (Converse) *Phase II Environmental Site Assessment* (*ESA*) that was performed at Parking Lot 1, which is generally located west of the Los Angeles Memorial Coliseum, north of West Martin Luther King (MLK) Jr. Boulevard, between South Vermont Avenue and Bill Robertson Lane in the City of Los Angeles, Los Angeles County, California, referred to as the "Site" in this Report. Converse was retained by University of Southern California, Real Estate & Asset Management (User), to conduct the *Phase II ESA* at the Site. The scope of this *Phase II ESA* was completed in accordance with the proposal dated February 24, 2017.

Converse generally followed the standard practices of the American Society for Testing Materials (ASTM) Designation: E1903-11 *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process* (ASTM, E 1903-11). The purpose of conducting the *Phase II ESA* in accordance with ASTM E1903-11 is to acquire and evaluate information sufficient to achieve the objective(s) set forth in the "Statement of Objectives" developed by the *User* and Converse. The proposed Scope of Services is based upon the findings and conclusions presented in a Phase I ESA Report, dated February 6, 2017, prepared by Converse Consultants, and were to:

1. Assess the extents to which soil may have potentially been impacted by historical auto related businesses, battery repair facility, cleaners and a gas station on the Site and adjoining properties.
2. Identify if potential target analytes are present at concentrations greater than threshold criteria.
3. Perform a geophysical survey to further evaluate the presence, or absence, of underground storage tanks (USTs) and other subsurface features.

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2.0 Background

Details in the following sections regarding the Site and surrounding areas were obtained from the Converse Consultants Phase I ESA Report.

2.1 Site Description and Features

2.1.1 Current Uses of the Site

The Site consists of an asphalt-paved parking lot, Lot 1, which is generally located west of the Los Angeles Memorial Coliseum. The location of the Site is indicated on Figure 1.

2.1.2 Location and Legal Description

The Site consists of one (1) rectangular-shaped parcel, approximately 2.5-acres in size, and is bound by West Martin Luther King Jr. Boulevard to the south, Bill Robertson Lane to the east, and South Vermont Avenue to the west. Located to the north of the Site is a City of Los Angeles soccer field.

The Los Angeles County Assessor's Parcel Numbers (APNs) are 5037-027-928, 929, -930, -931, -933, -934, and a portion of 5037-027-927.

2.1.3 Site and Vicinity General Characteristics

The vicinity of the Site is characterized by a mix of primarily multi-family residential developments and sporadic commercial developments along the west side of South Vermont Avenue. The property to the east of the Site is currently occupied by the Los Angeles Memorial Coliseum.

2.2 Physical Setting

2.2.1 Topography

The Site is located approximately 175 feet above mean sea level with surface topography sloping towards the west (United States Geological Survey [USGS] Topographic Map, Hollywood, California, 1991).

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2.2.2 Geology

The Site is underlain by unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 2010).

2.2.3 Hydrogeology

The nearest groundwater well to the Site is located approximately 2.0-miles west-southwest of the Site, near the intersection of 5th Avenue and W. 43rd Avenue. When Los Angeles County, Department of Public Works (DPW) well number 2679G was measured on September 22, 2009, the depth to groundwater was recorded at 169.6 feet below ground surface (bgs). The surface elevation was recorded at 129.9 feet.

The Site was not covered on currently published groundwater contour maps. Therefore, the direction of regional groundwater is inferred to follow surface topography to the west.

2.3 Site History and Land Use

As early as 1894, the Site appeared to be unimproved land. By 1907, the Site was occupied by residential dwellings and vacant parcels. In general, since 1907, the Site has been occupied by various commercial and residential buildings. By 1952, the majority of structures had been demolished or removed and the area was redeveloped for parking lots with the exception for the southwest corner and southeast portion of the Site which were occupied by a gas station and residential dwellings and commercial buildings respectively. By 1977, the Site were graded with the exception of the southwest corner which remained occupied by a gas station until at least 1995.

Parking Lot 1

- From 1919 to at least 1950, a battery repair facility was located at 3998 South Vermont Avenue. Additional addresses associated with this use were 935 and 937 West Santa Barbara Avenue. Permits indicated the facility was no longer present as early as 1950 to as late as 1964.

- A “cleaners” and sign painting facility were present at 3980 South Vermont Avenue as early as 1929 to 1950. Regulatory database information indicated the site as a “clothes presser cleaner and repairer.”

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- A garage or gas station has been present at 3986 South Vermont as early as 1923 to at least 1966. Additional use at this address was indicated to be a sign paint shop in 1930. Other address associated with this site are 3986-3988 South Vermont Avenue and 927-939 West Santa Barbara Avenue.

  A gas station was located at 3996-3998 South Vermont Avenue as early as 1966 to at least 1996 when the USTs were reportedly removed. Other addresses associated with this site include 3996 South Vermont Avenue/MLK Jr Boulevard and 933 MLK Jr Boulevard and 933 W. Santa Barbara Avenue. Records indicated that 933 Santa Barbara Boulevard was occupied by Texaco and had a 1974 permit for a car wash discharge into a clarifier system.

2.4 Adjacent Property Land Use

As early as 1894, the adjoining properties appeared to be unimproved land. By 1907, there were "box stalls" to the east of the Site and a track and swimming pool were present by 1922. In 1922, a gas station was present to the northwest, beyond Leighton Avenue, until at least 1966; and a gas station was present to the southwest, beyond W. Santa Barbara Avenue, until at least 1928 and reappeared by 1954 to at least 2012. By 1950, a gas station was constructed to the east of the southeast corner of the Site beyond Menlo Avenue until at least 1968.

In 1966, a gas station appeared to the south, beyond W. Santa Barbara Avenue, and remained until at least 1970. Other adjoining properties were occupied by residential dwellings and commercial buildings.

2.5 Summary of Previous Assessment Reports

Converse prepared a Phase I ESA Report on the Site for the University of Southern California, Real Estate & Asset Management, dated February 6, 2017.

A summary of the Site and Adjacent Properties history and land uses was provided in Sections 2.4 and 2.4 respectively.

No historical recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs), or de minimus conditions were identified at the Site.

No significant data gaps were identified that affect the ability of the Environmental Professional (EP) to identify RECs.

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3.0 Work Performed and Rationale

3.1 Scope of Assessment

A conceptual model was developed based on data presented regarding the historic use of the Site and adjoining properties.

3.1.1 Target Analytes

Data obtained during the Converse Phase I ESA indicated that volatile organic compounds (VOCs), metals, and petroleum hydrocarbons may be present in the soil and soil vapor at the Site.

3.1.2 Target Analytes First Entered the Environment

The data indicates that target analytes would have first entered the environment by surface spills or releases to the surface soil.

3.1.3 Environmental Media and Locations Most Likely to Have the Highest Concentrations of Target Analytes

The environmental media most likely to have the highest concentrations of target analytes is soil and soil vapor.

The *Phase II ESA* consisted of the following primary elements:

A geophysical survey was completed at the Site by Southwest Geophysics on March 3, 2017 to identify if any USTs are present, or locate potential backfilled excavations where USTs may previously have been located. The survey also evaluated proposed boring locations for potential utilities. A copy of the geophysical survey report is included in Appendix A.

A total of nine (9) borings were completed in Parking Lot 1. See Figure 2 for boring locations relative to the parking lot, and Figure 3 for boring locations relative to features identified in the Geophysical survey.

- Two (2) borings (B1 and B2) were completed in the northwestern portion near the historic cleaners (3980 S. Vermont Avenue).
- One (1) boring (B3) was completed in the central portion of the Site near the former garage or gas station (3986 S. Vermont Avenue).
- Four (4) borings (B4 through B7) were completed in the southwestern portion in the vicinity of the former battery repair facility and gas station (3996-3998

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S. Vermont Avenue and 933-937 W. Santa Barbara Avenue/Martin Luther King Jr. Blvd.).

- One (1) boring (B8) was completed in the southeast corner of the Site to evaluate if historical off-site gas station operations may have impacted the Site.
- One (1) boring (B9) was completed in the east central portion of the Site, near an area of subsidence associated with subsurface utility lines identified during the geophysical survey.

3.2 Soil Sample Collection

The borings were completed on March 9, 2017 using a direct-push (Geoprobe®) drill rig operated by Interphase Environmental. Soil samples were collected from each boring at depths of 2, 5, 10 and 15-feet bgs. The acetate liners, which contained the retrieved soil cores, were cut at the appropriate sample depths. Subsamples were collected from each sample sleeve using EnCore sample containers in accordance with Environmental Protection Agency (EPA) Method 5035. A portion of all soil samples were transferred into sealable bags and screened in the field for VOCs using a photoionization detector (PID). The sample containers were sealed, labeled, and placed on ice for transport to a California-certified laboratory under chain-of-custody control.

3.3 Soil Vapor Sample Collection

Soil vapor probes were installed in all borings at depths of 5 and 15 feet bgs. Six-inch long porous probes, connected to ¼-inch diameter Teflon tubing, were inserted to the bottom of the borehole and an approximate 1-foot sand pack was then placed around and slightly above the probes. The boreholes were then sealed with hydrated bentonite up to 5 feet bgs where a probe was installed in a similar manner. The remainder of the borehole was then backfilled with hydrated bentonite up to 6-inches bgs. These probes were abandoned following sample collection by pulling the tubing from the ground and then patching the ground surface.

Subsurface conditions were allowed to re-equilibrate for a minimum period of 2 hours prior to sample collection. Following equilibration, the probes were then purged and sampled in general accordance with the Joint Department of Toxic Substances Control (DTSC)/Regional Water Quality Control Board (RWQCB) Advisory for Active Soil Gas Investigations, dated July, 2015. The rate at which tubing was purged and samples were collected did not exceed 200 milliliters per minute. Approximately three (3) well-volumes of air was purged from the line using a low flow pump, and then samples were collected using a glass syringe.

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The samples were transferred directly from the syringe into the mobile laboratory equipment for analysis.

3.4 Field Quality Assurance/Quality Control

The following are the quality assurance and quality control measures that were taken to evaluate the quality of the data generated:

- Standard EPA sample handling protocol including chain-of-custody control were followed.

- New dedicated sampling equipment (probes, gloves, acetates sleeves) were used for the collection of samples.

- Non-dedicated sampling equipment (Geoprobe sample barrel) was decontaminated between borings.

- Prior to purging and sampling of soil vapor at each point, a shut-in test was conducted to check for leaks in the aboveground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably.

  Tracer gas was applied at the ground surface near the probes during sample collection to evaluate if ambient air was being drawn through a leak in the fittings.

3.5 Chemical Analytical Methods

The soil samples were submitted to Jones Environmental laboratory in Santa Fe Springs, California under EPA chain of custody documentation. Thirty-six (36) soil samples from various depths from each boring were analyzed for:

- Total Petroleum Hydrocarbons (TPH) using EPA Method 8015M;
- Title 22 Metals using EPA Test Method 6010; and
- VOCs using EPA Method 8260.

All soil samples not initially analyzed were archived by the laboratory.

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The soil vapor samples were all collected and analyzed in the field for VOCs in accordance with EPA Method 8260B by a mobile laboratory operated by Jones Environmental.

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4.0 Presentation and Evaluation of Results

4.1 Geophysical Survey

The geophysical revealed the presence of several unidentified lines and utilities and five notable features, but none that appear to be buried USTs or backfilled UST excavations. The results of the geophysical survey and the boring locations are presented in Figure 3. The complete geophysical survey report is included in Appendix A.

An electromagnetic (EM) anomaly located on the southwest portion of the Site appears as a zone of relatively high EM values with three shallow pipes. Although metal pipes can create a high EM response, the response appeared to be broader than that expected from only pipes, and was therefore identified as suspect. Boring B5 was locate within the area of this anomaly.

The other features identified appear to be related to former posts and gates, as well as relatively small potential excavations and areas of subsidence. Borings B3, B8 and B9 were located near these identified features.

4.2 Subsurface Conditions

The geophysical survey did not reveal the presence of any suspected USTs at the Site. However, several electromagnetic anomalies, potential backfilled excavations, and unidentified lines were detected across the Site. The results of the geophysical survey and the boring locations are presented in Figure 3. The complete geophysical survey report is included in Appendix A.

The soils observed in subsurface samples collected were generally sands and silty sands in the upper 10 feet, with clay or clayey silt present in most borings at a depth of 15 feet bgs. The soil samples were generally brown, tan, or olive in color and slightly moist. Boring logs are included as Appendix B.

No staining, odors, or other signs of contamination were noted in any of the samples. A PID was used to screen samples in the field for VOCs, and several were reported to have very elevated levels. However, based on the laboratory reported values, and the lack of other observed contaminant indicators, these readings are suspected to false highs caused by moisture in the samples.

Groundwater was not encountered in any of the borings completed to depths up to 15 feet bgs.

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4.3 Analytical Results

Reported concentrations were compared to screening levels developed by the Department of Toxic Substances Control (DTSC) and presented in Human Health Risk Assessment (HHRA) Notes 3, 5, and 7. For compounds not listed in HHRA Notes 3, 5 and 7, the Regional Screening Levels (RSLs) established by the EPA were used. Tabulated data for the soil and soil vapor samples, along with applicable screening levels, are included in Table 1 and Table 2, respectively. Analytical reports from the laboratory for the soil, and soil vapor samples are provided in Appendices C and D, respectively.

4.3.1 Soil Samples

No concentrations of VOCs were detected in any of the soil samples analyzed.

Concentrations of TPH in the gasoline range were not detected in any of the soil samples analyzed. Diesel range TPH was reported in one (1) sample (the sample from 2 feet bgs at location B6) at a concentration of 36.8 milligrams per kilogram (mg/kg), and heavy oil range TPH was detected in four (4) samples (all from 2 feet bgs at locations B2, B3, B6, and B8) at a maximum concentration of 350 mg/kg. All reported levels of TPH were below the respective screening levels.

A total of ten (10) metals were detected in various soil samples. With the exception of arsenic and lead, all of the reported metal concentrations were below their respective screening levels for residential land use.

- Arsenic was reported in five (5) samples (all from 2 feet bgs at locations B2, B4, B5, B7, and B9) at a maximum concentration of 32.8 mg/kg. These concentrations all exceed the health-risk based screening level for a residential land use of 0.11 mg/kg. However, only one (1) of the reported values exceeds 12 mg/kg, which the DTSC has determined to be an average of naturally occurring concentrations at schools sites in southern California.
- Lead concentrations reported in samples B2-5 of 152 mg/kg, B6-2 of 147 mg/kg, and B9-2 of 162 mg/kg exceed the screening level for residential land use of 80 mg/kg. However, all lead concentrations are less than the screening level for commercial/industrial land use of 320 mg/kg.

4.3.2 Vapor Samples

Concentrations of the chemicals reported in soil vapor samples were evaluated relative to screening levels that were calculated using formulas

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presented in the DTSC Vapor Intrusion Guidance, the HHRA Note 3, 5, or 7 levels for indoor air concentrations (for chemicals not listed in the HHRA Notes, RSLs were used), and an attenuation factor associated with an existing commercial or future residential development of the Site.

A total of 12 VOCs were detected in one (1) or more of the 18 soil vapor samples: benzene, bromodichloromethane, ethylbenzene, freon 113, styrene, tetrachloroethylene (PCE), trichlorofluoromethane, 1,2,4-trimethylbenzene, m,p-xylenes, o-xylene, and gasoline range organics. All reported concentrations are below their respective soil vapor screening levels for residential land use.

4.4 Data Quality Assurance/Quality Control

4.4.1 Hold Times

All samples were transported to the laboratory under chain-of-custody documentation, and were analyzed within the appropriate hold times.

4.4.2 Laboratory Quality Assurance

The laboratory provided data to estimate precision, accuracy, and bias. The laboratory report indicates that the method blanks and matrix spikes met quality assurance objectives. Overall, the presented data are reliable and useable for project decision making. Laboratory Quality Assurance data are included in the analytical reports in Appendices C and D.

4.4.3 Practical Quantitation Limits (PQL)

- The PQL for metals in the soil ranged from 1.0 to 5.0 mg/kg.
- The PQL for TPH in the soil was 1.0 mg/kg.
- The PQLs for the VOCs in the soil ranged from 1 to 50 mg/kg.
- The PQLs for VOCs in vapor ranged from 8 to 2,000 micrograms per cubic meter ($\mu g/m^3$).

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5.0 Interpretation, Conclusions & Recommendations

5.1 RECs and Potential Release Area(s)

Data obtained during the Converse Phase I ESA indicated that VOCs, metals, and petroleum hydrocarbons may be present in the soil and soil vapor at the Site due to historical uses at the Site.

5.2 Conceptual Model Validation/Adequacy of Investigations

It is our opinion that the field and analytical data validated the conceptual model and the assessment adequately evaluated the identified objectives of the *Phase II ESA*.

5.3 Absence, Presence, Degree, Extent of Target Analytes

Soil
No concentrations of VOCs were detected in any of the soil samples analyzed.

All reported concentrations of TPH were below their respective screening levels.

A total of ten (10) metals were detected in various soil samples. With the exception of arsenic and lead, all of the reported metals concentrations were below their respective screening levels for residential land use. Three (3) concentrations of lead exceeded the screening level for residential land use, but all concentrations were less than the screening level for commercial/industrial land use. With one (1) exception, all reported arsenic concentrations are less than the level determined by the DTSC to be an average naturally occurring level at school sites in southern California. Since all arsenic was only reported in samples from 2 feet bgs, and not in any of the deeper samples analyzed, the source of these detections may have been from a surficial application of a product for weed control.

Soil Vapor
A total of 12 VOCs were detected in one (1) or more of the 18 soil vapor samples. All concentrations were below the calculated soil-vapor screening levels for future residential and/or existing commercial developments.

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5.4 Other Concerns

5.4.1 Significant Assumptions

No significant assumptions need to be noted in this *Phase II ESA* report.

5.4.2 Limitations and Exceptions

No significant limitations or exceptions need to be noted in this *Phase II ESA* report.

5.4.3 Special Terms and Conditions

No special terms or conditions need to be noted in this *Phase II ESA* report.

5.5 Conclusions/Objectives Met

Converse has performed a *Phase II ESA* at Parking Lot 1, which is generally located west of the Los Angeles Memorial Coliseum, north of West Martin Luther King (MLK) Jr. Boulevard, between South Vermont Avenue and Bill Robertson Lane in the City of Los Angeles, Los Angeles County, California, in general conformance with the scope and limitations of ASTM, E1903-11 and the following objectives:

- Assess the extents to which soil may have potentially been impacted by historical auto related businesses, battery repair facility, cleaners and a gas station on the Site and adjoining properties.
- Identify if potential target analytes are present at concentrations greater than threshold criteria.
- Perform a geophysical survey to further evaluate the presence, or absence, of underground storage tanks (USTs) and other subsurface features.

Based upon the above, Converse has concluded the following:

- The geophysical survey did not reveal any anomalies suspected to be buried USTs or backfilled UST excavations.
- No concentration of VOCs were detected in any of the soil samples analyzed.
- All reported concentrations of TPH were below screening levels.

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- With the exception of arsenic and lead, all of the reported metals concentrations were below their respective screening levels for residential land use.
  - Three (3) samples were reported to have lead concentrations that exceed the screening level for residential land use, but all concentrations are less than the screening level for commercial/industrial land use.
  - With one (1) exception, all reported arsenic concentrations are less than the level determined by the DTSC to be an average naturally occurring level at school sites in southern California.
- A total of 12 VOCs were detected in one (1) or more of soil vapor samples. All concentrations were below their respective soil-vapor screening levels for future residential and existing commercial land uses.

Based on the results of this assessment, the impacts to the Site from historical onsite and/or offsite sources appear to not have significantly impacted the Site.

5.6 Recommendations

No further assessment of the Site appears to be warranted at this time.

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6.0 Reliance

This report is for the sole benefit and exclusive use of University of Southern California, Real Estate & Asset Management, in accordance with the terms and conditions that are presented in our proposal dated February 24, 2017, under which these services have been provided. The preparation of this report has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. This report should not be regarded as a guarantee that no further contamination beyond that which could be detected within the scope of this assessment is present at the Site.

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7.0 References and Sources of Information

California State Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (RWQCB), Advisory-Active Soil Gas Investigations, July 2015.

DTSC, Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), October 2011

DTSC, Human health Risk Assessment (HHRA) Note #3, DTSC Modified Screening levels (DTSC SLs), January 2016.

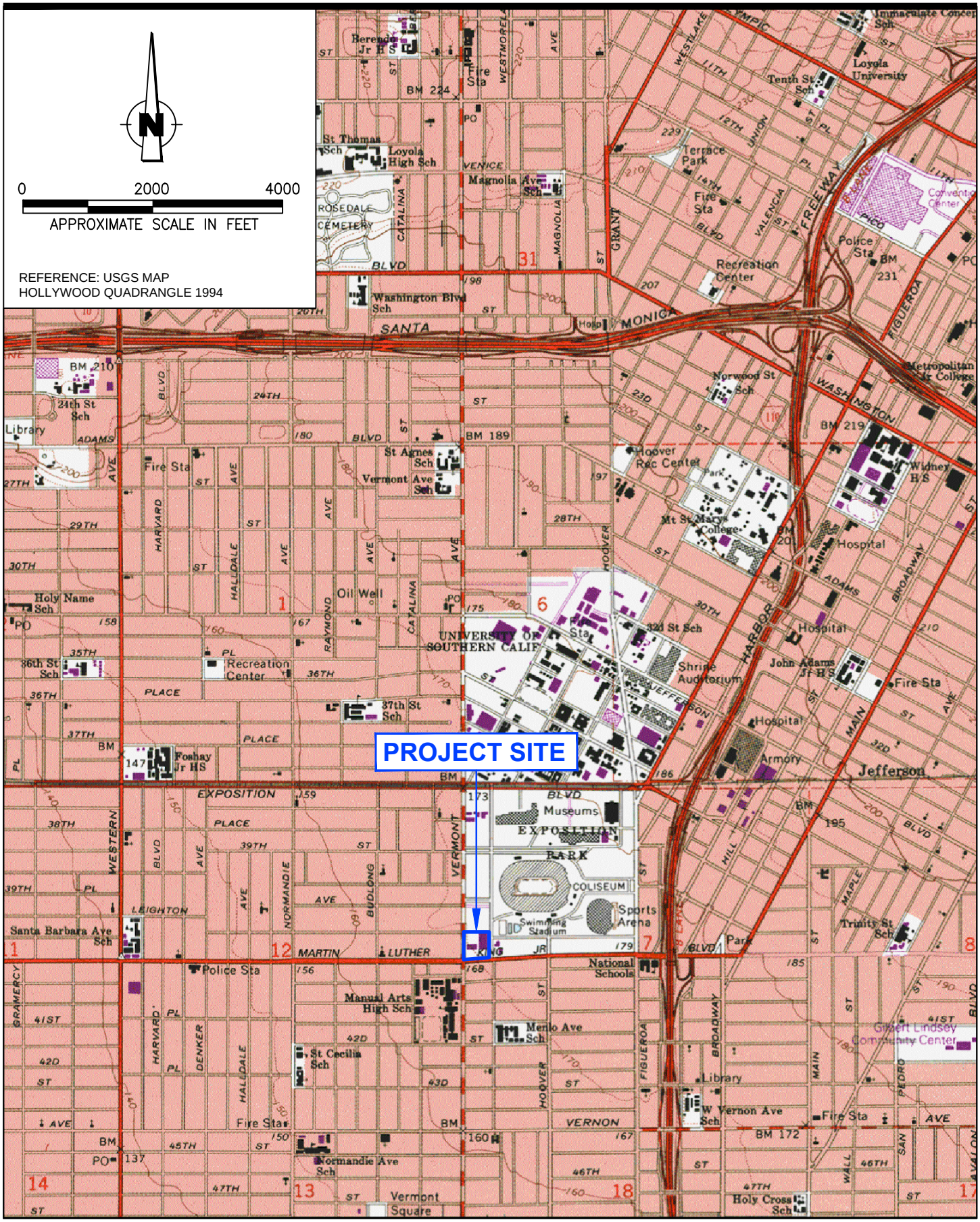
Converse Consultants, Phase I Environmental Site Assessment Report, Parking Lots 1 and 1A, Located Northeast Corner of Martin Luther King Jr. Boulevard & Vermont Avenue, Los Angeles, California, February 6, 2017.

US EPA, Regional Screening Levels (RSLs), November 2015.

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Figures

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PROPERTY LOCATION MAP

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USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No.
17-42-106-02

Figure No.
1

0 50 100

APPROXIMATE SCALE IN FEET

REFERENCE: GOOGLE EARTH PRO

LEGEND

B-9 APPROXIMATE BORING LOCATION

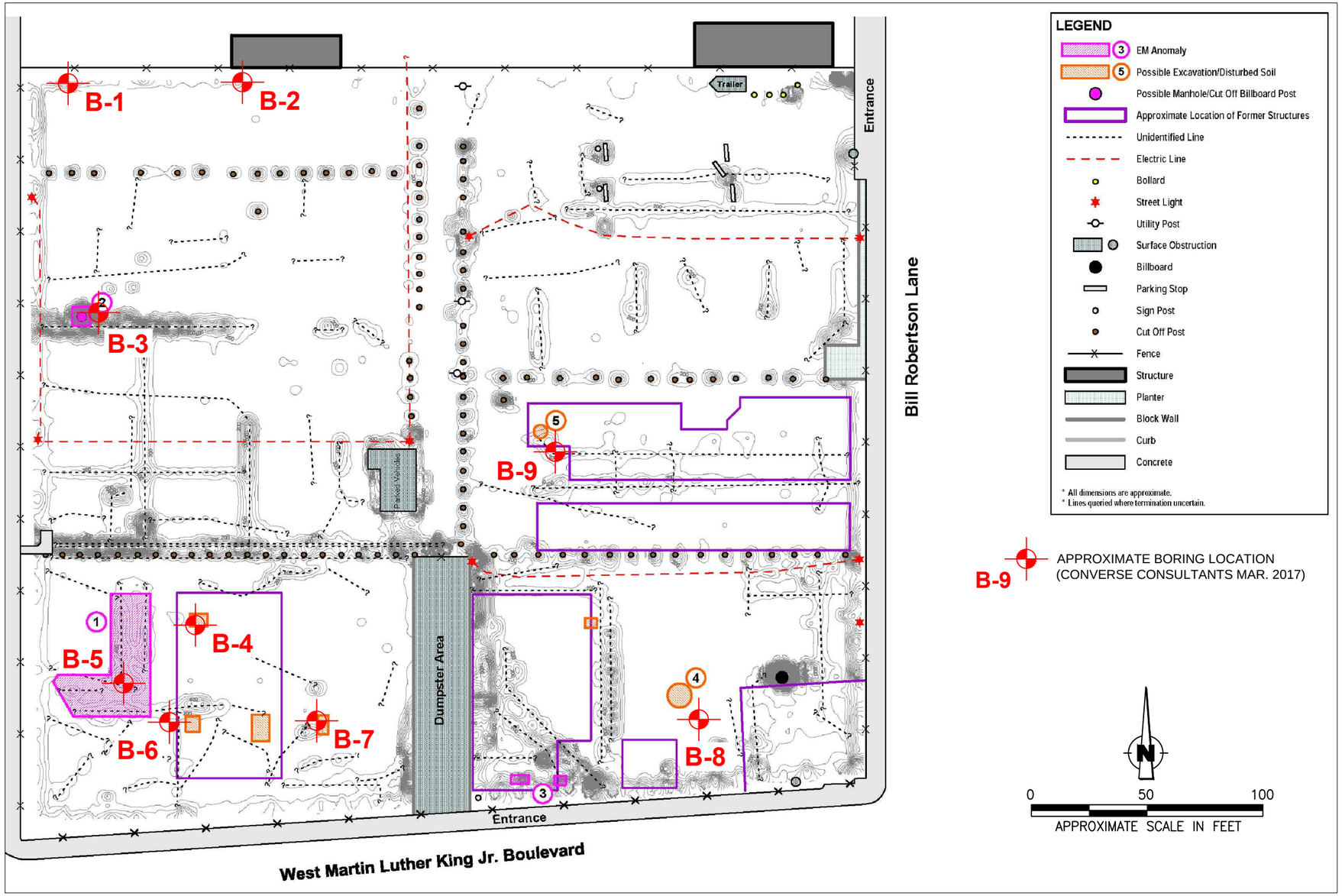


BORING LOCATION MAP

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USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
17-42-106-02	2



REFERENCE: BASE PLAN DRAWING BY SOUTHWEST GEOPHYSICS INC. FIGURE 2B, 03/17

GEOPHYSICAL SURVEY MAP

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USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR
BOULEVARD AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
17-42-106-02	3

Tables

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Table 1
Soil Sample Analytical Results
Parking Lot 1
Los Angeles, California

Boring Location	Depth (feet bgs)	Date	Metals (mg/kg)											All VOCs (ug/m^3)	Total Petroleum Hydrocarbons (mg/kg)		
			Arsenic	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	V anadium	Zinc	All Other Metals		C10-C13 (Gasoline)	C14-C23 (Diesel)	C24-C43 (Motor Oil)
B1	2	3/9/17	ND	**77.5**	ND	**11.5**	**7.2**	**23.4**	**12.8**	**7.3**	**27.9**	**56.9**	ND	ND	ND	ND	ND
	5	3/9/17	ND	**57.4**	ND	**7.8**	**5.1**	**7.8**	**1.9**	**4.5**	**18.2**	**29.1**	ND	ND	ND	ND	ND
	15	3/9/17	ND	**28.8**	ND	**3.7**	**2.5**	**5.5**	**1.4**	**2.3**	**10.1**	**17.2**	ND	ND	ND	ND	ND
B2	2	3/9/17	**1.1**	**75.8**	ND	**9.1**	**6.1**	**17.5**	**34.6**	**7.6**	**23.1**	**77.7**	ND	ND	ND	ND	**196**
	5	3/9/17	ND	**97.8**	**0.6**	**11.8**	**6.3**	**19.5**	**152**	**7.0**	**24.9**	**107**	ND	ND	ND	ND	ND
	10	3/9/17	ND	**37.0**	ND	**5.2**	**3.6**	**7.0**	**2.1**	**3.0**	**15.9**	**22.7**	ND	ND	ND	ND	ND
B3	2	3/9/17	ND	**56.4**	**1.2**	**33.5**	**11.2**	**12.5**	**34.3**	**14.2**	**48.6**	**102**	ND	ND	ND	ND	**154**
	5	3/9/17	ND	**53.6**	ND	**8.1**	**5.7**	**10.2**	**2.6**	**5.2**	**22.9**	**32.1**	ND	ND	ND	ND	ND
	15	3/9/17	ND	**143**	ND	**21.7**	**13.5**	**30.3**	**6.4**	**15.7**	**47.4**	**63.9**	ND	ND	ND	ND	ND
B4	2	3/9/17	**0.8**	**80.1**	ND	**9.5**	**7.0**	**21.4**	**3.8**	**3.1**	**21.0**	**43.8**	ND	ND	ND	ND	ND
	5	3/9/17	ND	**89.7**	ND	**11.1**	**6.9**	**17.6**	**20.7**	**7.2**	**23.3**	**55.0**	ND	ND	ND	ND	ND
	10	3/9/17	ND	**24.6**	ND	**2.9**	**2.2**	**4.6**	**1.1**	**1.8**	**7.9**	**16.3**	ND	ND	ND	ND	ND
B5	2	3/9/17	**1.0**	**73.6**	**2.0**	**9.4**	**6.4**	**20.4**	**53.4**	**6.8**	**22.2**	**139**	ND	ND	ND	ND	ND
	5	3/9/17	ND	**51.8**	**0.8**	**7.3**	**5.5**	**10.5**	**2.3**	**4.6**	**21.6**	**30.9**	ND	ND	ND	ND	ND
	15	3/9/17	ND	**122**	**0.7**	**19.2**	**12.5**	**26.1**	**5.5**	**13.2**	**44.8**	**58.1**	ND	ND	ND	ND	ND
B6	2	3/9/17	ND	**121**	**0.6**	**10.3**	**6.6**	**23.0**	**147**	**7.7**	**26.2**	**85.4**	ND	ND	ND	**36.8**	**350**
	5	3/9/17	ND	**41.6**	ND	**5.1**	**4.1**	**5.8**	**1.3**	**3.3**	**14.1**	**22.0**	ND	ND	ND	ND	ND
	10	3/9/17	ND	**55.5**	ND	**7.5**	**5.7**	**8.5**	**2.4**	**5.0**	**21.1**	**29.3**	ND	ND	ND	ND	ND
B7	2	3/9/17	**1.6**	**53.9**	ND	**8.7**	**4.6**	**13.7**	**8.2**	**5.4**	**14.6**	**30.6**	ND	ND	ND	ND	ND
	5	3/9/17	ND	**126**	ND	**15.8**	**10.6**	**18.5**	**5.5**	**10.6**	**32.1**	**45.4**	ND	ND	ND	ND	ND
	15	3/9/17	ND	**135**	ND	**15.7**	**10.5**	**22.6**	**5.7**	**11.0**	**35.8**	**51.3**	ND	ND	ND	ND	ND
B8	2	3/9/17	ND	**75.9**	ND	**10.7**	**7.6**	**16.1**	**4.9**	**7.2**	**28.3**	**46.2**	ND	ND	ND	ND	**115**
	5	3/9/17	ND	**41.9**	ND	**5.7**	**4.4**	**5.7**	**1.4**	**3.3**	**18.6**	**21.3**	ND	ND	ND	ND	ND
	10	3/9/17	ND	**48.9**	ND	**6.0**	**5.0**	**6.3**	**1.5**	**4.0**	**17.6**	**24.9**	ND	ND	ND	ND	ND
B9	2	3/9/17	**32.8**	**92.7**	ND	**12.2**	**7.6**	**35.8**	**162**	**7.7**	**28.8**	**113**	ND	ND	ND	ND	ND
	5	3/9/17	ND	**41.2**	ND	**5.2**	**3.8**	**5.3**	**1.7**	**2.9**	**16.1**	**20.0**	ND	ND	ND	ND	ND
	15	3/9/17	ND	**149**	ND	**22.6**	**14.7**	**29.5**	**6.5**	**15.8**	**49.3**	**66.4**	ND	ND	ND	ND	ND
Maximum Concentration			**32.8**	**149**	**2.0**	**33.5**	**14.7**	**35.8**	**162**	**15.8**	**49.3**	**139**	-	-	-	**36.8**	**350**
Screening Levels	residential		0.11	15,000	5.2	36,000	23	3,100	80	490	390	23,000	-	-	770	240	1,100
	commercial/industrial		0.36	190,000	7.3	170,000	350	47,000	320	3,100	1,000	350,000	-	-	4,100	1,200	14,000

mg/kg milligrams per kilogram
ug/kg micrograms per kilogram
bgs below ground surface
ND not detected above the method detection limit (MDL)
VOCs volatile organic compounds
Gray Highling indicates EPA Regional Screening Level (RSL) used since no values presented in DTSC Human Health Risk Assessment (HHRA) Notes 3, 5, or 7

CONVERSE Project No. 17-42-106-02
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Table 2
Soil Vapor Sample Analytical Results
Parking Lot 1
Los Angeles, California

Sample ID	B-1-5	B-1-15	B-2-5	B-2-15	B-3-5	B-3-15	B-4-5	B-4-15	B-5-5	B-5-15	B-6-5	B-6-15	B-7-5	B-7-15	B-8-5	B-8-15	B-9-5	B-9-15	Maximum Concentration ug/m^3	Indoor Air Screening Level ug/m^3		Attenuation Factor (existing commercial / future residential construction)	Calculated Soil Vapor Screening Level ug/m^3	
Sample Date	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17	3/9/17		Residential	Commercial / Industrial		Residential	Commercial / Industrial
Benzene	**18.6**	ND	**27.2**	**36.0**	ND	**11.6**	ND	**92.2**	ND	**64.6**	ND	**33.4**	**29.4**	**28.6**	ND	**25.8**	ND	**47.0**	**92.2**	0.097	0.420	1,000	**97.0**	**420**
Bromodichloromethane	ND	ND	**12.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12.6**	0.076	0.330	1,000	**76**	**330**
Ethylbenzene	ND	**22.0**	ND	**9.0**	**30.2**	ND	ND	**26.6**	**12.0**	**14.0**	ND	**15.8**	**15.4**	**8.0**	ND	**13.0**	ND	**32.2**	**32.2**	1.10	4.90	1,000	**1,100**	**4,900.0**
Freon 113	ND	ND	ND	ND	ND	ND	**51.6**	**28.6**	**86.8**	**37.8**	**89.6**	**94.6**	ND	**67.8**	**11.6**	**11.4**	ND	ND	**94.60**	31,000	130,000	1,000	**31,000,000**	**130,000,000**
Styrene	ND	ND	ND	**10.2**	ND	**13.2**	ND	**9.4**	ND	**8.2**	ND	ND	ND	ND	ND	ND	ND	ND	**13.2**	1,000	4,400	1,000	**1,000,000**	**4,400,000**
Tetrachloroethylene (PCE)	**52.8**	**37.0**	**115**	ND	**75.4**	**223**	**150**	**25.4**	**293**	**147**	**190**	**265**	ND	**221**	**57.2**	**75.0**	**36.8**	ND	**293**	0.480	2.10	1,000	**480**	**2,100**
Toluene	**27.2**	**70.8**	**82.8**	**133**	**61.0**	**59.8**	**38.4**	**284**	**36.0**	**154**	**28.0**	**148**	**130**	**98.8**	**29.6**	**102**	**19.2**	**231**	**284**	310	1,300	1,000	**310,000**	**1,300,000**
Trichlorofluoromethane	ND	ND	**11.2**	ND	**8.2**	**12.2**	ND	**18.2**	**15.0**	**8.0**	**20.8**	**23.4**	ND	**19.4**	**19.6**	**15.6**	**16.6**	**13.0**	**23.4**	1,300	5,300	1,000	**1,300,000**	**5,300,000**
1,2,4-Trimethylbenzene	ND	ND	ND	**12.0**	ND	**16.4**	ND	**23.0**	ND	**12.6**	ND	**17.2**	ND	**10.8**	ND	**19.6**	ND	**37.4**	**37.4**	7.30	31.0	1,000	**7,300**	**31,000**
m,p-Xylenes	**19.4**	**86.0**	**28.4**	**60.2**	**112**	**33.4**	ND	**116**	**55.8**	**78.2**	**14.8**	**81.0**	**84.0**	**39.8**	**13.2**	**66.8**	ND	**156**	**156**	100	440	1,000	**100,000**	**440,000**
o-Xylene	ND	**13.8**	ND	**15.0**	**16.4**	**8.8**	ND	**32.0**	**9.8**	**20.6**	ND	**21.0**	**19.8**	**10.8**	ND	**17.4**	ND	**40.2**	**40.2**	100	440	1,000	**100,000**	**440,000**
Gasoline Range Organics (C4-C12)	**2,330**	ND	**7,650**	**5,420**	ND	**11,000**	**2,730**	**8,130**	**3,650**	**7,700**	**2,460**	**4,360**	**5,120**	**5,030**	ND	**4,060**	ND	**4,100**	**11,000**	590	2,500	1,000	**590,000**	**2,500,000**
All Other VOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-

Indoor Air screening level based on DTSC Human Health Risk Assessment (HHRA) Note 3, EPA Regional Screening Levels (RSLs), or San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs)
ug/m^3 micrograms per cubic meter
ND Not detected

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Geophysical Survey Report

Appendix A

Converse Project No. 17-42-106-02
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GEOPHYSICAL EVALUATION
3990 BILL ROBERTSON LANE
LOS ANGELES, CALIFORNIA

PREPARED FOR:
Converse Consultants
3176 Pullman Street, Suite 108
Costa Mesa, CA 92626

PREPARED BY:
Southwest Geophysics, Inc.
8057 Raytheon Road, Suite 9
San Diego, CA 92111

March 17, 2017
Project No. 117091

SOUTHWEST GEOPHYSICS, INC.

YOUR SUBSURFACE SOLUTION

March 17, 2017
Project No. 117011117091

Ms. Kristin Tsumura
Converse Consultants
3176 Pullman Street, Suite 108
Costa Mesa, CA 92626

Subject: Geophysical Evaluation
3990 Bill Robertson Lane
Los Angeles, California

Dear Ms. Tsumura:

In accordance with your authorization, we are pleased to submit this data report pertaining to our geophysical evaluation for the property located at 3990 Bill Robertson Lane in Los Angeles, California. The purpose of our evaluation was to assess the presence of buried underground storage tanks (USTs) and/or backfilled excavations associated with UST removal in the study area. In addition, the presence of detectable underground utilities was evaluated in the study area. Our services were conducted on March 3, 2017. This report presents the survey methodology, equipment used, analysis, and results from our study.

We appreciate the opportunity to be of service on this project. Should you have any questions please contact the undersigned at your convenience.

Sincerely,
SOUTHWEST GEOPHYSICS, INC.

Patrick F. Lehrmann, P.G., P.Gp.
Principal Geologist/Geophysicist

Hans van de Vrugt, C.E.G., P.Gp.
Principal Geologist/Geophysicist

PFL/HV/hv

Distribution: Addressee (electronic)

REGISTERED GEOPHYSICIST
PATRICK F. LEHRMANN
No. 1043
Exp. 1/31/18
STATE OF CALIFORNIA

8057 Raytheon Road, Suite 9 • San Diego • California 92111 • Telephone 858-527-0849 • Fax 858-225-0114

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1. INTRODUCTION

In accordance with your authorization, we are pleased to submit this data report pertaining to our geophysical evaluation for the property located at 3990 Bill Robertson Lane in Los Angeles, California (Figure 1). The purpose of our evaluation was to assess the presence of buried underground storage tanks (USTs) and/or backfilled excavations associated with UST removal in the study area. In addition, the presence of detectable underground utilities was evaluated in the study area. Our services were conducted on March 3, 2017. This report presents the survey methodology, equipment used, analysis, and results from our study.

2. SCOPE OF SERVICES

Our scope of services included:

- Performance of a geophysical survey at the subject site. Our survey included the use of a Schonstedt GA-52 magnetic gradiometer, Geonics model EM61 time domain instrument, Fisher M-Scope TW-6 pipe and cable locator, RD8000 line tracer, and GSSI SIR 3000 Ground Penetrating Radar (GPR) unit using a 400 MHz transducer.
- Site reconnaissance including field mapping of surface structures at and near the survey area.
- Compilation and analysis of the data collected.
- Preparation of this report presenting our findings, conclusions and recommendations.

3. SITE AND PROJECT DESCRIPTION

The project site is located near the northeast corner of the intersection of South Vermont Avenue and West Martin Luther King Jr. Boulevard in Los Angeles, California (Figure 1). The study area, which was defined by your office, included accessible portions of an open paved parking lot. Improvements at the site include bollards, fences, street lights, parking stoppers, a dumpster storage area, sign posts, and cut off posts.

Based on our discussions with you, it is our understanding that historical records indicate that a gas station and automobile repair facility were once located at the site. Reportedly, the gas station was located at the southwest corner of the site, the automobile repair facility was located along the north side of the site, and that USTs were utilized in these portions of the site. Records

regarding the precise location, size, type, and or installation/removal were reportedly not available.

4. GEOPHYSICAL INSTRUMENTATION AND APPLICATIONS

Our evaluation included the use of a Geonics model EM61, GSSI SIR 3000 GPR, Schonstedt, model GA-52C magnetic gradiometer, Fisher M-Scope TW-6 pipe and cable locator, and RD8000 line tracer. These instruments provide real-time results and facilitate the delineation of subsurface features.

The EM61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets. Conductive objects to a depth of approximately 11 feet generally can be detected.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at boundaries in the subsurface across which there are an electrical contrast. The recorder continuously makes a record of the reflected energy as the antenna is moved across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The EM wave travels at a velocity unique to the material properties of the ground being studied, and when these velocities are known, or closely estimated from ground conductivity values and other information, two-way travel times can be converted to depth. Penetration into the ground and resolution of the GPR images produced are a function of ground electrical conductivity and dielectric constant. Images

tend to be graphic, even at considerable depth, in sandy soils, but penetration and resolution may be limited in more conductive clayey moist ground.

The magnetic gradiometer has two fluxgate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits an audible signal at a low frequency. When the instrument passes over buried iron or steel objects (so that the field is significantly different at the two sensors) the frequency of the emitted sound increases. Frequency is a function of the gradient between the two sensors.

The M-Scope TW-6 device energizes the ground by producing an alternating primary magnetic field with alternating current (AC) in the transmitting coil. If conducting materials (including soils) are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field produced by these eddy currents, and outputs an audio response. The strength of the secondary field is a function of the conductivity of the object, its size, and its depth and position relative to the instrument's two coils. Conductive objects to a depth of approximately 10 feet are sensed. Also, the device is somewhat focused, that is, it is more sensitive to conductors below (and above) the instrument, than to conductors off to the side.

Where risers are present, the RD8000 utility locator transmitter can be connected to the object, and a current is impressed on the conductor pipe or cable. The receiver unit is tuned to this same frequency, and it is used to trace the pipe's surface projection away from the riser. The transmitter and receiver can also be used in a non-connect (induction) mode, whereby the transmitter is positioned on the ground and an electromagnetic signal is emitted. In the presence of buried metal pipes and wires, a discrete signal will be induced on the conductor which can be sensed by the receiver. In addition, the instrument may be used in the passive mode, whereby radio and 60 Hz electromagnetic signals produced by communication and live electric lines are detected.

5. SURVEY METHODOLOGY

In order to facilitate the collection of electromagnetic data, a Trimble Pro XRS global positioning system (GPS) was used for spatial control. Traverses spaced roughly 5 feet apart were conducted across accessible portions of the survey area, which was generally defined by your office, with data points collected at 0.1 second intervals. GPR traverses were conducted along roughly north-south and east-west profiles spaced approximately 5 feet apart in the survey area. GPR traverses were also performed along random profiles across and near detected features. Traverses with the M-Scope and gradiometer were conducted along traverses spaced approximately 5 feet apart. The line tracer was used in both passive, direct connect and inductive modes to delineate the presence of underground utilities in the study area. Recorded EM61 data were downloaded to a portable computer in the field for preliminary analysis and significant anomalies features were marked on the ground surface with paint and reported to you.

6. RESULTS, CONCLUSIONS AND RECOMMENDATIONS

As previously discussed, the purpose of our evaluation was to assess the presence of buried USTs and/or backfilled excavations associated with UST removal in accessible portions of the study area. In addition, the presence of detectable underground utilities was evaluated at the site.

The results of our survey revealed the presence of five notable features comprised of three EM anomalies (Features 1 through 3) and two possible excavations (Features 4 and 5). In addition, several unidentified lines and utilities were also detected. Figures 2a, 2b, 3a, and 3b illustrate the results of our evaluation. The following is a description of the five relatively significant features:

- ***Feature 1***: This EM anomaly is located at the southwest end of the study area. It was detected with the EM instruments and appears as a zone of relatively high EM values. GPR images collected across this feature appear to indicate three shallow pipes. Although metal pipes can create a high EM response, the response seems broader than that expected from only pipes; therefore, it should be considered suspect.
- ***Feature 2***: This EM anomaly is located at the northwest side of the study area. It was detected with the EM instruments as well as with the gradiometer. GPR conducted across this feature appears to indicate a cut off billboard post or a filled-in manhole.
- ***Feature 3***: This feature is a combination of two small EM responses located at the south end of the site near a locked gate. GPR conducted across these features appear to indicate a small buried vault and a possible gate actuator.

- ***Feature 4***: This feature is located at the southeast central portion of the site, just west of a billboard. GPR images collected across this feature indicate a possible circular excavation, the cause of which is unknown.
- ***Feature 5***: This feature is located at the central portion of the site, just northwest of Feature 4. GPR images collected from this area appear to indicate an area of disturbed soil. Additionally, the asphalt appears to be subsiding at this feature and an unidentified line terminates at this feature. The cause or purpose of this feature is unknown.

Several additional areas of slightly disturbed soil were also detected in the survey area. These features are relatively small and the limits were not well defined. The locations of these features are shown on Figures 2a and 2b.

In order to further assess the features described above, we recommend that more direct methods be used. Such methods may include the excavation of exploratory trenches/test pits.

Our survey utilized industry standard equipment (i.e., GPR, electromagnetic, and magnetic instruments) and was conducted in general accordance with current practice. It should be noted, however, that the presence of existing structures and surface objects (i.e., signs, bollards, street lights, reinforced concrete, parking stops, etc.) potentially limited the survey. Where obstructions were present subsurface data could not be collected. Moreover, EM/magnetic responses produced by metal surface objects and underground lines can potentially obscure subsurface features. Figures 2a, 2b, 3a, and 3b present the general site conditions and some of the obstructions encountered during our study. Radar penetration was on the order of 3-4 feet below the ground surface; therefore, objects below this depth would not have been detected with GPR.

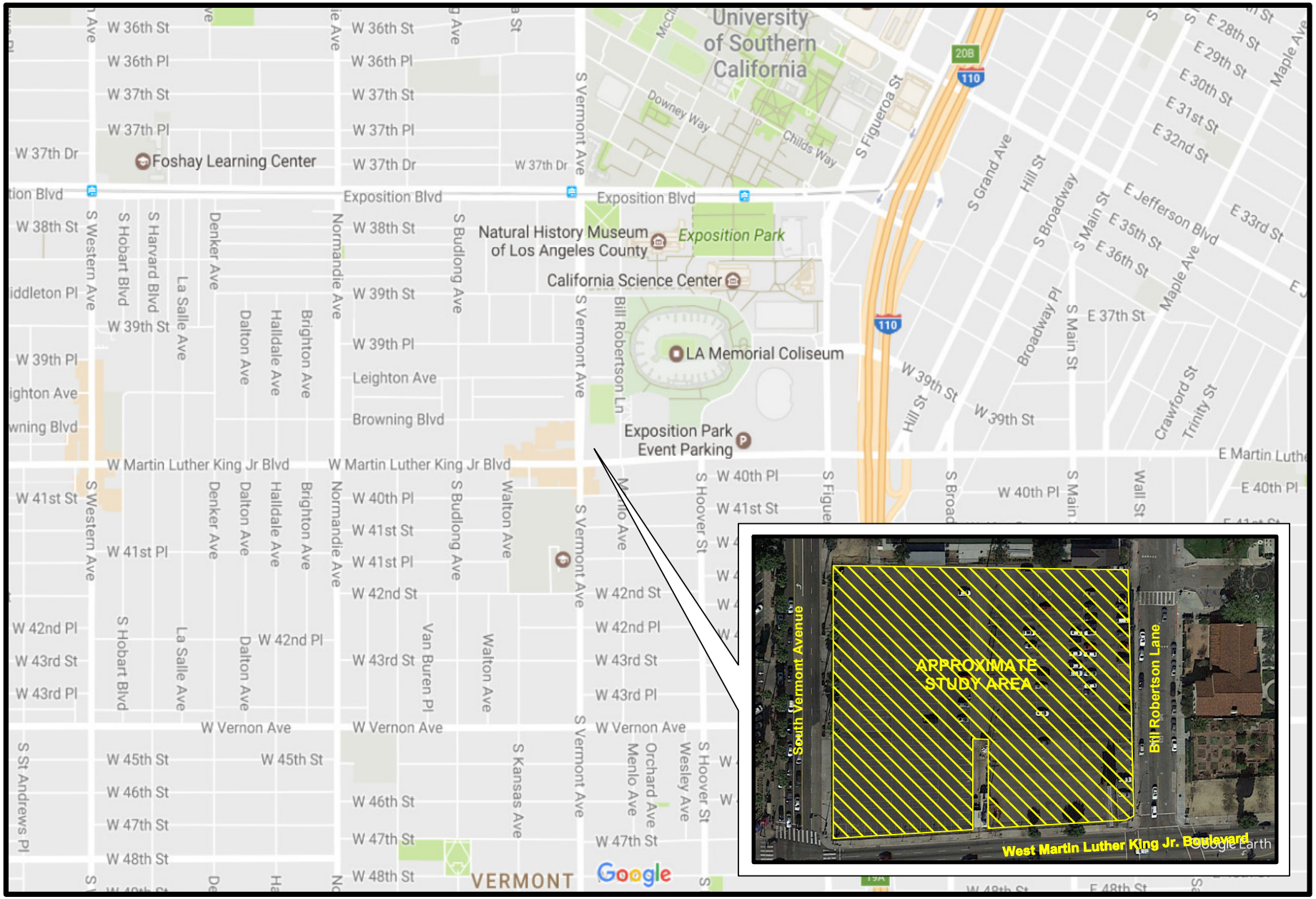
7. LIMITATIONS

The field evaluation and geophysical analyses presented in this report have been conducted in general accordance with current practice and the standard of care exercised by consultants performing similar tasks in the project area. No warranty, express or implied, is made regarding the conclusions and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be present. Uncertainties relative to subsurface conditions can be reduced

through additional subsurface surveying and/or exploration. Additional subsurface surveying can be performed upon request.

Please also note that our evaluation was limited to the detection of USTs and/or backfilled tank excavations, as well as the presence of detectable underground lines in the study area. "USA" or "Dig Alert" should also be contacted prior to conducting subsurface exploration activities. In addition, we recommend that available utility plans/drawings of the project site be reviewed as appropriate.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Southwest Geophysics, Inc. should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document. This report is intended exclusively for use by the client. Any use or reuse of this report by parties other than the client is undertaken at said parties' sole risk.



SITE LOCATION MAP

N

3990 Bill Robertson Lane
Los Angeles, California

Project No.: 117091 | Date: 03/17

SOUTHWEST GEOPHYSICS INC.

Figure 1



LEGEND

- 3 — EM Anomaly
- 5 — Possible Excavation/Disturbed Soil
- Possible Manhole/Cut Off Billboard Post
- Approximate Location of Former Structures
- Unidentified Line
- Electric Line
- Bollard
- Street Light
- Utility Post
- Surface Obstruction
- Billboard
- Parking Stop
- Sign Post
- Cut Off Post
- Fence
- Structure
- Planter
- Block Wall
- Curb
- Concrete

* All dimensions are approximate.
* Lines queried where termination uncertain.

0 40 80 120 160

approximate scale in feet

SITE MAP

N

3990 Bill Robertson Lane
Los Angeles, California

Project No.: 117091 | Date: 03/17

SOUTHWEST GEOPHYSICS INC.

Figure 2a



LEGEND

- 3 — EM Anomaly
- 5 — Possible Excavation/Disturbed Soil
- Possible Manhole/Cut Off Billboard Post
- Approximate Location of Former Structures
- Unidentified Line
- Electric Line
- Bollard
- Street Light
- Utility Post
- Surface Obstruction
- Billboard
- Parking Stop
- Sign Post
- Cut Off Post
- Fence
- Structure
- Planter
- Block Wall
- Curb
- Concrete

* All dimensions are approximate.
* Lines queried where termination uncertain.

0 40 80 120 160

approximate scale in feet

SITE DATA MAP
EM61 Data CI= 100 mVolts

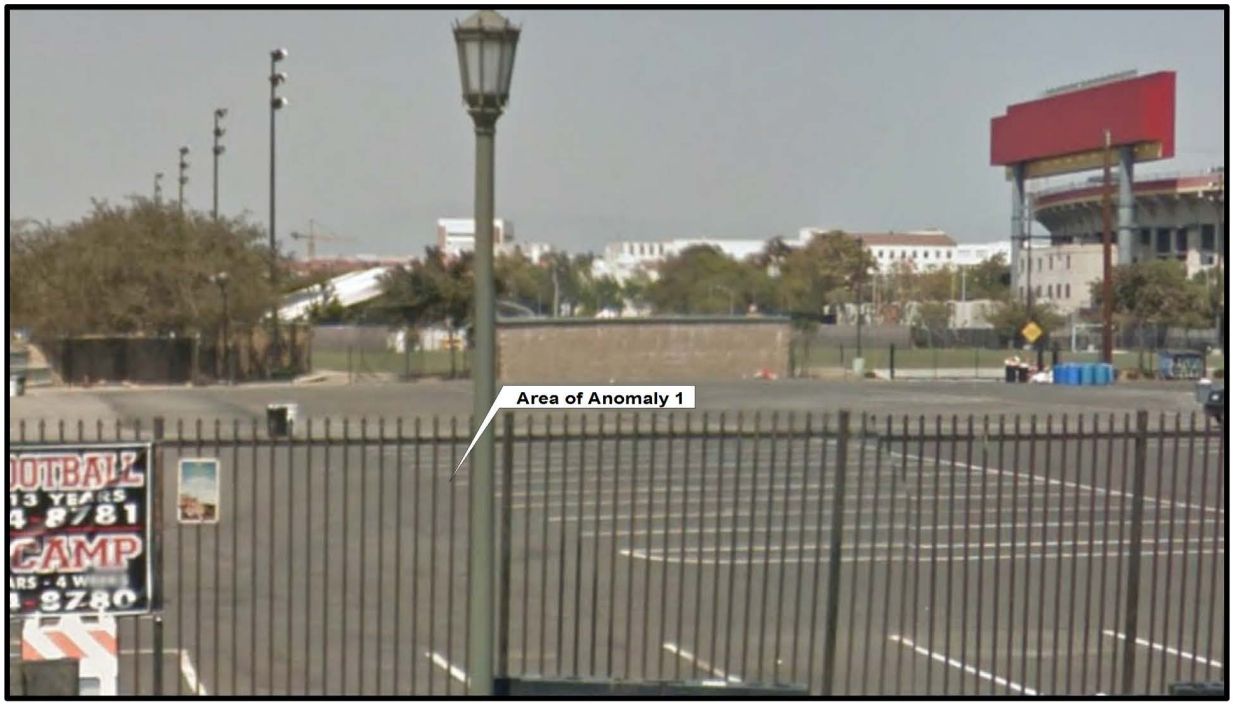
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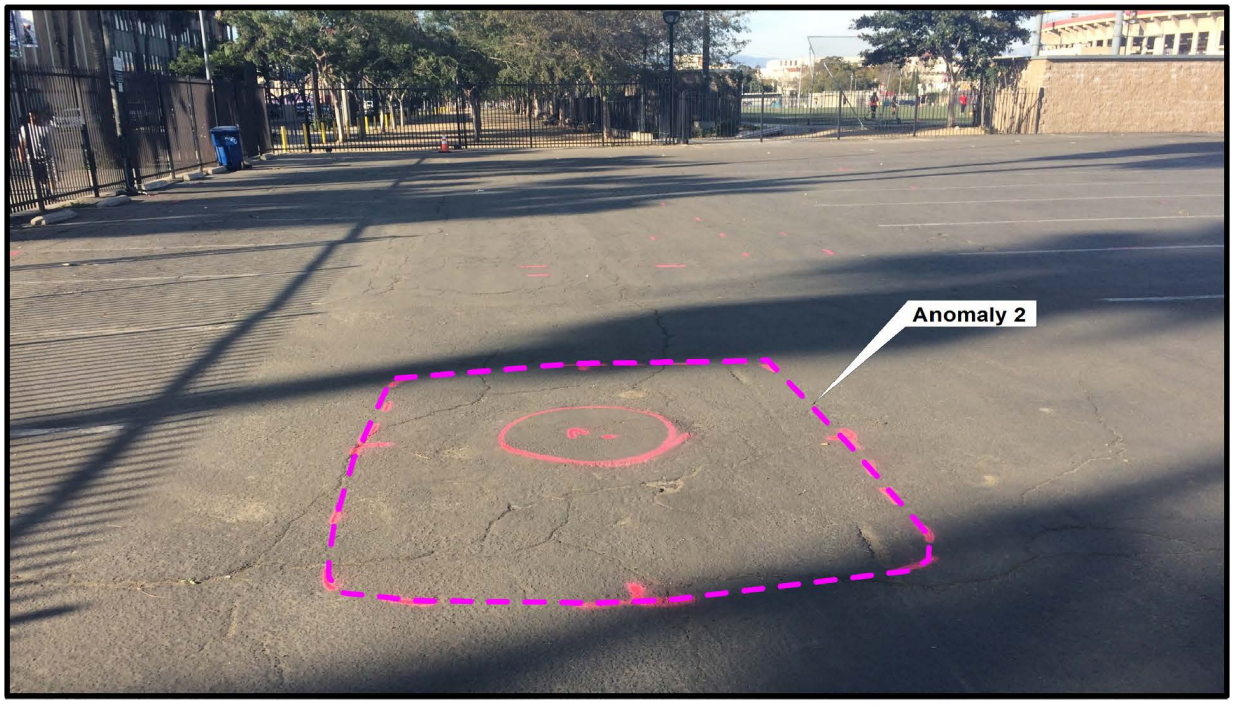
3990 Bill Robertson Lane
Los Angeles, California

Project No.: 117091 | Date: 03/17

SOUTHWEST GEOPHYSICS INC.

Figure 2b





SITE PHOTOGRAPHS

1912 Broadway
Santa Monica, California

Project No.: 115544 | Date: 11/15

SOUTHWEST GEOPHYSICS INC.

Figure 3a









SITE PHOTOGRAPHS

3990 Bill Robertson Lane
Los Angeles, California

Project No.: 117091

Date: 03/17

SOUTHWEST GEOPHYSICS INC.

Figure 3b

Boring Logs

Appendix B

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Log of Boring No. B-1

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES: DRIVE	SAMPLES: BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SAND (SP): brown, very fine to fine, minor silt, moderately sorted, slightly moist.	X		2,000	
5		-very fine, no silt, tan, well sorted	X		2,000	
10		-very fine to fine	X		500	
15			X		2,000	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

Converse Consultants

Project Name
USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR BLVD. AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-1**

Log of Boring No. B-2

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SILTY SAND (SM): dark brown, very fine to medium, with silt and minor gravel, poorly sorted, moist.	X		9,000	
5		**GRAVELLY SAND (SW):** tan, very fine to fine sand with minor gravel to 1" diameter, moderately sorted, slightly moist.	X		3,000	
10		**SAND (SP):** tan, very fine to fine, well sorted, slightly moist.	X		40	
15		**CLAYEY SAND (SC):** brown, very fine to fine sand with minor gravel to 1" diameter and interbedded clays, poorly sorted, slightly moist.	X		315	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

Converse Consultants

Project Name
USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR BLVD. AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-2**

Log of Boring No. B-3

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SAND (SW): dark brown, very fine to medium sand with minor silt and trace gravel, poorly sorted, slightly moist.	X		1,000	
5		**SAND (SP):** brown, fine to medium, well sorted, slightly moist.	X		100	
10		-tan	X		755	
		CLAY (CL): olive, moist, minor silt, moderately soft.	X		600	
15		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

Converse Consultants

Project Name
USC
PARKING LOT 1
NE CORNER MARTIN LUTHER KING JR BLVD. AND VERMONT AVENUE
LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-3**

Log of Boring No. B-4

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SILTY SAND (SM): brown, very fine to fine sand with silt and minor very coarse sand, poorly sorted, moist.	X		3,000	
5		-gray, less silt	X		1,000	
10		**SAND (SP):** tan, fine grained sand, very well sorted, slightly moist.	X		110	
15		**CLAY (CL):** olive, moist, minor silt, moderately soft.	X		800	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-4**

Log of Boring No. B-5

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SILTY SAND (SM): brown, very fine to fine sand, moderately sorted, slightly moist.	X		670	
5		**SAND (SP):** brown, very fine to fine, well sorted, slightly moist.	X		10,000	
10		-finer grained	X		10,000	
		CLAY (CL): olive, moist, minor silt, moderately soft.				
15			X		10,000	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-5**

Log of Boring No. B-6

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES: DRIVE	SAMPLES: BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SILTY SAND (SM): brown, very fine to fine sand, moderately sorted, slightly moist.	X		10,000	
5		**SAND (SP):** tan, very fine to fine, well sorted, slightly moist.	X		10,000	
10		**CLAY (CL):** olive, moist, minor silt, moderately soft.	X		10,000	
15			X		10,000	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-6**

Log of Boring No. B-7

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SAND (SW): brown, very fine to medium, minor silt, poorly sorted, slightly moist.	X		4,500	
5		**SILT (ML):** olive, minor clay and trace very fine grained sand, slightly moist, moderately soft to loose.	X		666	
10		**SAND (SW):** brown, very fine to fine grained with minor moderately to coarse sand, poorly sorted, slightly moist.	X		800	
15			X		834	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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LOS ANGELES, CALIFORNIA

Project No. **17-42-106-02**

Figure No. **B-7**

Log of Boring No. B-8

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES: DRIVE	SAMPLES: BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SAND (SP): brown, very fine to fine, well sorted, slightly moist.	X		33	
5			X		77	
10		-tan	X		140	
		CLAYEY SILT (ML): olive, slightly moist, soft to loose.	X		230	
15		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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Project No. **17-42-106-02**

Figure No. **B-8**

Log of Boring No. B-9

Dates Drilled: 3/9/2017 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		0-4" ASPHALT				
		SAND (SP): brown, very fine to fine sand, minor silt, moderately sorted, slightly moist.	X		700	
5		-tan, no silt, well sorted, dry	X		420	
10			X		29	
15		**CLAYEY SILT (ML):** olive, moist, soft to loose.	X		27	
		Total Depth = 15 feet. Groundwater not encountered during drilling. Soil Vapor Probes set at 5 and 15 feet.				

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Project No. **17-42-106-02**

Figure No. **B-9**

Analytical Report – Soil Samples

Appendix C

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

ANALYSES REQUESTED

1. EPA 8015M – Extended Range Hydrocarbons
2. EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates
3. EPA 6010B by 3050B and EPA 7471A – CAM 17 Metals

Approval:

Carolyn Carroll
Stationary Lab Manager

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Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-1-2**	**B-1-5**	**B-1-15**	**B-2-2**	**B-2-5**		
JEL ID:	**ST-10315-01**	**ST-10315-02**	**ST-10315-04**	**ST-10315-05**	**ST-10315-06**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	**11.4**	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	**46.9**	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	**42.5**	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	**67.2**	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	**28.2**	ND	1.0	mg/kg
Total	ND	ND	ND	**196**	ND		mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	48%	83%	44%	64%	61%	30 - 120	
Batch:	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01		

ND = Not Detected

C10 - C11	ND	ND	ND	ND	ND	mg/kg
C12 - C23	ND	ND	ND	ND	ND	mg/kg
C24 - C31	ND	ND	ND	**58.3**	ND	mg/kg

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Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-2-10**	**B-3-2**	**B-3-5**	**B-3-15**	**B-4-2**		
JEL ID:	**ST-10315-07**	**ST-10315-09**	**ST-10315-10**	**ST-10315-12**	**ST-10315-13**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	**23.8**	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	**40.7**	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	**36.5**	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	**40.6**	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	**12.2**	ND	ND	ND	1.0	mg/kg
Total	ND	**154**	ND	ND	ND		mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	37%	64%	89%	120%	35%	30 - 120	
Batch:	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01		

ND = Not Detected

C10 - C11	ND	ND	ND	ND	ND	mg/kg
C12 - C23	ND	ND	ND	ND	ND	mg/kg
C24 - C31	ND	**64.5**	ND	ND	ND	mg/kg

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Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-4-5**	**B-4-10**	**B-5-2**	**B-5-5**	**B-5-15**		
JEL ID:	**ST-10315-14**	**ST-10315-15**	**ST-10315-17**	**ST-10315-18**	**ST-10315-20**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	85%	78%	85%	46%	83%	30 - 120	
Batch:	8015_170310_01	8015_170310_01	8015_170310_01	8015_170310_01	8015_170310_01		

ND = Not Detected

C10 - C11	ND	ND	ND	ND	ND		mg/kg
C12 - C23	ND	ND	ND	ND	ND		mg/kg
C24 - C31	ND	ND	ND	ND	ND		mg/kg

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Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-6-2**	**B-6-5**	**B-6-10**	**B-7-2**	**B-7-5**		
JEL ID:	**ST-10315-21**	**ST-10315-22**	**ST-10315-23**	**ST-10315-25**	**ST-10315-26**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	**10.6**	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	**26.2**	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	**43.1**	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	**91.3**	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	**76.7**	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	**113**	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	**26.3**	ND	ND	ND	ND	1.0	mg/kg
Total	**387**	ND	ND	ND	ND		mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	40%	61%	112%	68%	49%	30 - 120	
Batch:	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01	8015_ 170310_01		

ND = Not Detected

C10 - C11	ND	ND	ND	ND	ND		mg/kg
C12 - C23	**36.8**	ND	ND	ND	ND		mg/kg
C24 - C31	**134**	ND	ND	ND	ND		mg/kg

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Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-7-15**	**B-8-2**	**B-8-5**	**B-8-10**	**B-9-2**		
JEL ID:	**ST-10315-28**	**ST-10315-29**	**ST-10315-30**	**ST-10315-31**	**ST-10315-33**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	**14.1**	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	**13.1**	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	**28.1**	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	**48.1**	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	**11.5**	ND	ND	ND	1.0	mg/kg
Total	ND	**115**	ND	ND	ND		mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	53%	62%	56%	68%	86%	30 - 120	
Batch:	8015_ 170310_02	8015_ 170310_02	8015_ 170310_02	8015_ 170310_02	8015_ 170310_02		

ND = Not Detected

C10 - C11	ND	ND	ND	ND	ND	mg/kg
C12 - C23	ND	ND	ND	ND	ND	mg/kg
C24 - C31	ND	**27.2**	ND	ND	ND	mg/kg

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Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B-9-5**	**B-9-15**		
JEL ID:	**ST-10315-34**	**ST-10315-36**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range				
C10 - C11	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	1.0	mg/kg
Total	ND	ND		mg/kg
Dilution Factor	1	1		
Surrogate Recovery:			**QC Limits**	
Hexacosane	57%	112%	30 - 120	
Batch:	8015_170310_02	8015_170310_02		

ND = Not Detected

C10 - C11	ND	ND	mg/kg
C12 - C23	ND	ND	mg/kg
C24 - C31	ND	ND	mg/kg

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Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**METHOD BLANK**	**METHOD BLANK**		
JEL ID:	**MB-170310_01**	**MB-170310_02**	**Practical Quantitation Limit**	**Units**
Carbon Chain Range				
C10 - C11	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	1.0	mg/kg
Total	ND	ND		mg/kg
Dilution Factor	1	1		
Surrogate Recovery:			**QC Limits**	
Hexacosane	105%	110%	30 - 120	
Batch:	8015_170310_01	8015_170310_02		

ND = Not Detected

C10 - C11	ND	ND	mg/kg
C12 - C23	ND	ND	mg/kg
C24 - C31	ND	ND	mg/kg

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: 8015_170310_01 **Prepared:** 3/10/2017 **Analyzed:** 3/10/2017

EPA 8015M - Extended Range Hydrocarbons

	Result	Spike Level	% Recovery	% RPD	% Recovery Limits	Units
LCS:	LCS-170310_01					
Analyte:						
Diesel	**597**	600	100%		60 - 140	mg/kg
Surrogate Recovery:						
Hexacosane			101%		30 - 120	
LCSD:	LCSD-170310_01					
Analyte:						
Diesel	**559**	600	93%	6.6%	60 - 140	mg/kg
Surrogate Recoveries:						
Hexacosane			91%		30 - 120	

LCS = Laboratory Control Sample
RPD = Relative Percent Difference

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QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-13/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: 8015_170310_02 **Prepared:** 3/10/2017 **Analyzed:** 3/11/2017

EPA 8015M - Extended Range Hydrocarbons

	Result	Spike Level	% Recovery	% RPD	% Recovery Limits	Units
LCS:	LCS-170310_02					
Analyte:						
Diesel	**580**	600	97%		60 - 140	mg/kg
Surrogate Recovery:						
Hexacosane			101%		30 - 120	
LCSD:	LCSD-170310_02					
Analyte:						
Diesel	**523**	600	87%	10.3%	60 - 140	mg/kg
Surrogate Recoveries:						
Hexacosane			91%		30 - 120	

LCS = Laboratory Control Sample
RPD = Relative Percent Difference

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-1-2**	**B-1-5**	**B-1-15**	**B-2-2**	**B-2-5**		
JEL ID:	**ST-10315-01**	**ST-10315-02**	**ST-10315-04**	**ST-10315-05**	**ST-10315-06**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-1-2**	**B-1-5**	**B-1-15**	**B-2-2**	**B-2-5**		
JEL ID:	**ST-10315-01**	**ST-10315-02**	**ST-10315-04**	**ST-10315-05**	**ST-10315-06**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	100%	102%	102%	101%	99%	60 - 140	
Toluene-d_8	107%	109%	109%	107%	108%	60 - 140	
4-Bromofluorobenzene	97%	99%	96%	97%	95%	60 - 140	
	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-2-10**	**B-3-2**	**B-3-5**	**B-3-15**	**B-4-2**		
JEL ID:	**ST-10315-07**	**ST-10315-09**	**ST-10315-10**	**ST-10315-12**	**ST-10315-13**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-2-10**	**B-3-2**	**B-3-5**	**B-3-15**	**B-4-2**		
JEL ID:	**ST-10315-07**	**ST-10315-09**	**ST-10315-10**	**ST-10315-12**	**ST-10315-13**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	99%	98%	101%	98%	100%	60 - 140	
Toluene-d_8	107%	105%	109%	105%	106%	60 - 140	
4-Bromofluorobenzene	96%	91%	98%	94%	99%	60 - 140	
	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-4-5**	**B-4-10**	**B-5-2**	**B-5-5**	**B-5-15**		
JEL ID:	**ST-10315-14**	**ST-10315-15**	**ST-10315-17**	**ST-10315-18**	**ST-10315-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-4-5**	**B-4-10**	**B-5-2**	**B-5-5**	**B-5-15**		
JEL ID:	**ST-10315-14**	**ST-10315-15**	**ST-10315-17**	**ST-10315-18**	**ST-10315-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	101%	100%	98%	95%	97%	60 - 140	
Toluene-d_8	107%	107%	104%	106%	104%	60 - 140	
4-Bromofluorobenzene	100%	98%	99%	101%	100%	60 - 140	
	VOC1-031017-CHECKS	VOC1-031017-CHECKS	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	B-6-2	B-6-5	B-6-10	B-7-2	B-7-5		
JEL ID:	ST-10315-21	ST-10315-22	ST-10315-23	ST-10315-25	ST-10315-26	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-6-2**	**B-6-5**	**B-6-10**	**B-7-2**	**B-7-5**		
JEL ID:	**ST-10315-21**	**ST-10315-22**	**ST-10315-23**	**ST-10315-25**	**ST-10315-26**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	99%	98%	97%	95%	93%	60 - 140	
Toluene-d_8	105%	106%	106%	105%	104%	60 - 140	
4-Bromofluorobenzene	93%	98%	97%	97%	96%	60 - 140	
	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-7-15**	**B-8-2**	**B-8-5**	**B-8-10**	**B-9-2**		
JEL ID:	**ST-10315-28**	**ST-10315-29**	**ST-10315-30**	**ST-10315-31**	**ST-10315-33**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-7-15**	**B-8-2**	**B-8-5**	**B-8-10**	**B-9-2**		
JEL ID:	**ST-10315-28**	**ST-10315-29**	**ST-10315-30**	**ST-10315-31**	**ST-10315-33**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	94%	97%	100%	97%	100%	60 - 140	
Toluene-d_8	104%	109%	107%	105%	104%	60 - 140	
4-Bromofluorobenzene	94%	98%	101%	97%	100%	60 - 140	
	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B-9-5**	**B-9-15**		
JEL ID:	**ST-10315-34**	**ST-10315-36**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	1.0	µg/kg
Bromoform	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	1.0	µg/kg
Chloroform	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	B-9-5	B-9-15		
JEL ID:	**ST-10315-34**	**ST-10315-36**	**Practical Quantitation Limit**	**Units**
Analytes:				
cis-1,3-Dichloropropene	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	1.0	µg/kg
Freon 113	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	1.0	µg/kg
Styrene	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	1.0	µg/kg
Toluene	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	1.0	µg/kg
MTBE	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	50.0	µg/kg
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	98%	98%	60 - 140	
Toluene-d_8	104%	104%	60 - 140	
4-Bromofluorobenzene	96%	100%	60 - 140	
	VOC1-031017-CHECKS_2	VOC1-031017-CHECKS_2		

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**METHOD BLANK**		
JEL ID:	**031017-V1MB1**	**031017-V1MB2**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	1.0	µg/kg
Bromoform	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	1.0	µg/kg
Chloroform	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	5.0	µg/kg
1,1-Dichloroethane	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	1.0	µg/kg

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	METHOD BLANK		
JEL ID:	031017-V1MB1	031017-V1MB2	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	1.0	µg/kg
Freon 113	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	5.0	µg/kg
Naphthalene	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	1.0	µg/kg
Styrene	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	1.0	µg/kg
Toluene	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	5.0	µg/kg
1,2,3-Trichloropropane	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	1.0	µg/kg
o-Xylene	ND	ND	1.0	µg/kg
MTBE	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	50.0	µg/kg
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	103%	98%	60 - 140	
Toluene-d_8	110%	108%	60 - 140	
4-Bromofluorobenzene	94%	96%	60 - 140	
	VOC1-031017-CHECKS	VOC1-031017-CHECKS_2		

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample Spiked: CLEAN SOIL **GC#:** VOC1-031017-CHECKS

JEL ID:	**031017-V1MS1**	**031017-V1MSD1**			**031017-V1LCS1**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
Vinyl Chloride	91%	104%	12.7%	60 - 140	106%	70 - 130
1,1-Dichloroethylene	112%	123%	9.4%	60 - 140	126%	70 - 130
Cis-1,2-Dichloroethene	120%	123%	2.4%	70 - 130	121%	70 - 130
1,1,1-Trichloroethane	92%	91%	1.4%	70 - 130	85%	70 - 130
Benzene	92%	97%	5.2%	70 - 130	97%	70 - 130
Trichloroethylene	92%	96%	4.3%	70 - 130	93%	70 - 130
Toluene	97%	105%	8.3%	70 - 130	103%	70 - 130
Tetrachloroethene	89%	103%	13.7%	70 - 130	98%	70 - 130
Chlorobenzene	94%	101%	7.3%	70 - 130	100%	70 - 130
Ethylbenzene	96%	109%	12.7%	70 - 130	104%	70 - 130
1,2,4 Trimethylbenzene	112%	125%	11.2%	70 - 130	123%	70 - 130
Surrogate Recovery:						
Dibromofluoromethane	109%	93%		60 - 140	88%	60 - 140
Toluene-d_8	106%	106%		60 - 140	105%	60 - 140
4-Bromofluorobenzene	91%	94%		60 - 140	90%	60 - 140

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants, Inc.	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/10-11/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates

Sample Spiked: CLEAN SOIL **GC#:** VOC1-031017-CHECKS_2

JEL ID:	**031017-V1MS2**	**031017-V1MSD2**			**031017-V1LCS2**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
Vinyl Chloride	93%	83%	11.7%	60 - 140	81%	70 - 130
1,1-Dichloroethylene	109%	102%	6.2%	60 - 140	99%	70 - 130
Cis-1,2-Dichloroethene	119%	116%	2.6%	70 - 130	110%	70 - 130
1,1,1-Trichloroethane	77%	70%	10.3%	70 - 130	70%	70 - 130
Benzene	92%	86%	7.0%	70 - 130	87%	70 - 130
Trichloroethylene	92%	84%	9.4%	70 - 130	85%	70 - 130
Toluene	99%	90%	8.8%	70 - 130	89%	70 - 130
Tetrachloroethene	88%	84%	4.2%	70 - 130	83%	70 - 130
Chlorobenzene	94%	89%	6.5%	70 - 130	91%	70 - 130
Ethylbenzene	94%	92%	2.2%	70 - 130	92%	70 - 130
1,2,4 Trimethylbenzene	106%	105%	1.3%	70 - 130	109%	70 - 130
Surrogate Recovery:						
Dibromofluoromethane	92%	94%		60 - 140	92%	60 - 140
Toluene-d_8	104%	106%		60 - 140	103%	60 - 140
4-Bromofluorobenzene	92%	94%		60 - 140	90%	60 - 140

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-1-2** **JEL ID:** **ST-10315-01**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**77.5**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**7.2**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**11.5**	1	"	"	"	0.5	mg/kg
Copper, Cu	**23.4**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.3**	1	"	"	"	0.5	mg/kg
Lead, Pb	**12.8**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**27.9**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**56.9**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.034**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-1-5** **JEL ID:** **ST-10315-02**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**57.4**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**5.1**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**7.8**	1	"	"	"	0.5	mg/kg
Copper, Cu	**7.8**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**4.5**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.9**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**18.2**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**29.1**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.034**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-1-15** **JEL ID:** **ST-10315-04**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**28.8**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**2.5**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**3.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**5.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**2.3**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.4**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**10.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**17.2**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.044**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-2-2** **JEL ID:** **ST-10315-05**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Analytes:							
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	**1.1**	1	"	"	"	0.5	mg/kg
Barium, Ba	**75.8**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**6.1**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**9.1**	1	"	"	"	0.5	mg/kg
Copper, Cu	**17.8**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.6**	1	"	"	"	0.5	mg/kg
Lead, Pb	**34.6**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**23.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**77.7**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.066**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-2-5** **JEL ID:** **ST-10315-06**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**97.8**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**0.6**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**6.3**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**11.8**	1	"	"	"	0.5	mg/kg
Copper, Cu	**19.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.0**	1	"	"	"	0.5	mg/kg
Lead, Pb	**152**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**24.9**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**107**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.040**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-2-10** **JEL ID:** **ST-10315-07**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**37.0**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**3.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**5.2**	1	"	"	"	0.5	mg/kg
Copper, Cu	**7.0**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**3.0**	1	"	"	"	0.5	mg/kg
Lead, Pb	**2.1**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**15.9**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**22.7**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.062**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-3-2** **JEL ID:** **ST-10315-09**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**56.4**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**1.2**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**11.2**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**33.5**	1	"	"	"	0.5	mg/kg
Copper, Cu	**12.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**14.2**	1	"	"	"	0.5	mg/kg
Lead, Pb	**34.3**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**48.6**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**102**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.046**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-3-5** **JEL ID:** **ST-10315-10**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**53.6**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**5.7**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**8.1**	1	"	"	"	0.5	mg/kg
Copper, Cu	**10.2**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**5.2**	1	"	"	"	0.5	mg/kg
Lead, Pb	**2.6**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**22.9**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**32.1**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.039**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-3-15** **JEL ID:** **ST-10315-12**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**143**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**13.5**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**21.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**30.3**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**15.7**	1	"	"	"	0.5	mg/kg
Lead, Pb	**6.4**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**47.4**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**63.9**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.051**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-4-2** **JEL ID:** **ST-10315-13**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Analytes:							
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	**0.8**	1	"	"	"	0.5	mg/kg
Barium, Ba	**80.1**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**7.0**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**9.5**	1	"	"	"	0.5	mg/kg
Copper, Cu	**21.4**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**3.1**	1	"	"	"	0.5	mg/kg
Lead, Pb	**3.8**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**21.0**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**43.8**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.022**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-4-5** **JEL ID:** **ST-10315-14**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**89.7**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**6.9**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**11.1**	1	"	"	"	0.5	mg/kg
Copper, Cu	**17.6**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.2**	1	"	"	"	0.5	mg/kg
Lead, Pb	**20.7**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**23.3**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**55.0**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.045**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-4-10** **JEL ID:** **ST-10315-15**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**24.6**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**2.2**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**2.9**	1	"	"	"	0.5	mg/kg
Copper, Cu	**4.6**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**1.8**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.1**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**7.9**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**16.3**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.060**	1	H17031001	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-5-2** **JEL ID:** **ST-10315-17**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Analytes:							
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	**1.0**	1	"	"	"	0.5	mg/kg
Barium, Ba	**73.6**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**2.0**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**6.4**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**9.4**	1	"	"	"	0.5	mg/kg
Copper, Cu	**20.4**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**6.8**	1	"	"	"	0.5	mg/kg
Lead, Pb	**53.4**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**22.2**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**139**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.383**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-5-5** **JEL ID:** **ST-10315-18**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**51.8**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**0.8**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**5.5**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**7.3**	1	"	"	"	0.5	mg/kg
Copper, Cu	**10.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**4.6**	1	"	"	"	0.5	mg/kg
Lead, Pb	**2.3**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**21.6**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**30.9**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.060**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-5-15** **JEL ID:** **ST-10315-20**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**122**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**0.7**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**12.5**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**19.2**	1	"	"	"	0.5	mg/kg
Copper, Cu	**26.1**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**13.2**	1	"	"	"	0.5	mg/kg
Lead, Pb	**5.5**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**44.8**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**58.1**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.052**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-6-2** **JEL ID:** **ST-10315-21**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031101	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**121**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	**0.6**	1	"	"	"	0.5	mg/kg
Cobalt, Co	**6.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**10.3**	1	"	"	"	0.5	mg/kg
Copper, Cu	**23.0**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.7**	1	"	"	"	0.5	mg/kg
Lead, Pb	**147**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**26.2**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**85.4**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.339**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-6-5** **JEL ID:** **ST-10315-22**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**41.6**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**4.1**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**5.1**	1	"	"	"	0.5	mg/kg
Copper, Cu	**5.8**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**3.3**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.3**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**14.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**22.0**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.049**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-6-10** **JEL ID:** **ST-10315-23**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**55.5**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**5.7**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**7.5**	1	"	"	"	0.5	mg/kg
Copper, Cu	**8.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**5.0**	1	"	"	"	0.5	mg/kg
Lead, Pb	**2.4**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**21.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**29.3**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.029**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-7-2** **JEL ID:** **ST-10315-25**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Analytes:							
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	**1.6**	1	"	"	"	0.5	mg/kg
Barium, Ba	**53.9**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**4.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**8.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**13.7**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**5.4**	1	"	"	"	0.5	mg/kg
Lead, Pb	**8.2**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**14.6**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**30.6**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.038**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-7-5** **JEL ID:** **ST-10315-26**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**126**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**10.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**15.8**	1	"	"	"	0.5	mg/kg
Copper, Cu	**18.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**10.6**	1	"	"	"	0.5	mg/kg
Lead, Pb	**5.5**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**32.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**45.4**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.027**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-7-15** **JEL ID:** **ST-10315-28**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**135**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**10.5**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**15.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**22.6**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**11.0**	1	"	"	"	0.5	mg/kg
Lead, Pb	**5.7**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**35.8**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**51.3**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.095**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-8-2** **JEL ID:** **ST-10315-29**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**75.9**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**7.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**10.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**16.1**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.2**	1	"	"	"	0.5	mg/kg
Lead, Pb	**4.9**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**28.3**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**46.2**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.108**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-8-5** **JEL ID:** **ST-10315-30**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**41.9**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**4.4**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**5.7**	1	"	"	"	0.5	mg/kg
Copper, Cu	**5.7**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**3.3**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.4**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**18.6**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**21.3**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.026**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-8-10** **JEL ID:** **ST-10315-31**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**48.9**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**5.0**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**6.0**	1	"	"	"	0.5	mg/kg
Copper, Cu	**6.3**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**4.0**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.5**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**17.6**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**24.9**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.024**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-9-2** **JEL ID:** **ST-10315-33**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	**32.8**	1	"	"	"	0.5	mg/kg
Barium, Ba	**92.7**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**7.6**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**12.2**	1	"	"	"	0.5	mg/kg
Copper, Cu	**35.8**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**7.7**	1	"	"	"	0.5	mg/kg
Lead, Pb	**162**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**28.8**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**113**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.028**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-9-5** **JEL ID:** **ST-10315-34**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**41.2**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**3.8**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**5.2**	1	"	"	"	0.5	mg/kg
Copper, Cu	**5.3**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**2.9**	1	"	"	"	0.5	mg/kg
Lead, Pb	**1.7**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**16.1**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**20.0**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.032**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

Sample ID: **B-9-15** **JEL ID:** **ST-10315-36**

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Silver, Ag	ND	1	I17031102	3/11/2017	3/15/2017	0.5	mg/kg
Arsenic, As	ND	1	"	"	"	0.5	mg/kg
Barium, Ba	**149**	1	"	"	"	0.5	mg/kg
Beryllium, Be	ND	1	"	"	"	0.5	mg/kg
Cadmium, Cd	ND	1	"	"	"	0.5	mg/kg
Cobalt, Co	**14.7**	1	"	"	"	0.5	mg/kg
Chromium, Cr	**22.6**	1	"	"	"	0.5	mg/kg
Copper, Cu	**29.5**	1	"	"	"	0.5	mg/kg
Molybdenum, Mo	ND	1	"	"	"	0.5	mg/kg
Nickel, Ni	**15.8**	1	"	"	"	0.5	mg/kg
Lead, Pb	**6.5**	1	"	"	"	0.5	mg/kg
Antimony, Sb	ND	1	"	"	"	0.5	mg/kg
Selenium, Se	ND	1	"	"	"	0.5	mg/kg
Thallium, Tl	ND	1	"	"	"	0.5	mg/kg
Vanadium, V	**49.3**	1	"	"	"	0.5	mg/kg
Zinc, Zn	**66.4**	1	"	"	"	0.5	mg/kg

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Dilution	Batch	Prepared	Analyzed	Practical Quantitation Limit	Units
Mercury, Hg	**0.051**	1	H17031002	3/10/2017	3/13/2017	0.020	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **I17031101** **Prepared:** 3/11/2017 **Analyzed:** 3/15/2017

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Spike Level	% REC	% REC Limits	% RPD	Practical Quantitation Limit	Units
METHOD BLANK:	**I170311-BLK1**						
Analytes:							
Silver, Ag	ND					0.5	mg/kg
Arsenic, As	ND					0.5	mg/kg
Barium, Ba	ND					0.5	mg/kg
Beryllium, Be	ND					0.5	mg/kg
Cadmium, Cd	ND					0.5	mg/kg
Cobalt, Co	ND					0.5	mg/kg
Chromium, Cr	ND					0.5	mg/kg
Copper, Cu	ND					0.5	mg/kg
Molybdenum, Mo	ND					0.5	mg/kg
Nickel, Ni	ND					0.5	mg/kg
Lead, Pb	ND					0.5	mg/kg
Antimony, Sb	ND					0.5	mg/kg
Selenium, Se	ND					0.5	mg/kg
Thallium, Tl	ND					0.5	mg/kg
Vanadium, V	ND					0.5	mg/kg
Zinc, Zn	ND					0.5	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **I17031101** **Prepared:** 3/11/2017 **Analyzed:** 3/15/2017

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Spike Level	% REC	% RPD	% REC Limits	Units
LCS:	**I170311-LCS1**					
Analytes:						
Barium, Ba	**203**	200	102%		80 - 120	mg/kg
Cobalt, Co	**50.6**	50.0	101%		80 - 120	mg/kg
Lead, Pb	**51.4**	50.0	103%		80 - 120	mg/kg
Selenium, Se	**169**	200	85%		80 - 120	mg/kg
Zinc, Zn	**59.9**	50.0	120%		80 - 120	mg/kg
LCSD:	**I170311-LCSD1**					
Barium, Ba	**202**	200	101%	0.5%	80 - 120	mg/kg
Cobalt, Co	**50.8**	50.0	102%	0.4%	80 - 120	mg/kg
Lead, Pb	**51.7**	50.0	103%	0.6%	80 - 120	mg/kg
Selenium, Se	**171**	200	86%	1.2%	80 - 120	mg/kg
Zinc, Zn	**58.7**	50.0	117%	2.0%	80 - 120	mg/kg

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **H17031001** **Prepared:** 3/10/2017 **Analyzed:** 3/13/2017

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Spike Level	% REC	% RPD	% REC Limits	Units
METHOD BLANK:	**H170310-BLK1**					
Analytes:						
Mercury, Hg	ND					mg/kg
LCS:	**H170310-LCS1**					
Mercury, Hg	**0.83**	1.00	83%		80 - 120	mg/kg
LCSD:	**H170310-LCSD1**					
Mercury, Hg	**0.85**	1.00	85%	**2.5%**	80 - 120	mg/kg

ND= Not Detected

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **I17031102** **Prepared:** 3/11/2017 **Analyzed:** 3/11/2017

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Spike Level	% REC	% REC Limits	% RPD	Practical Quantitation Limit	Units
METHOD BLANK:	**I170311-BLK2**						
Analytes:							
Silver, Ag	ND					0.5	mg/kg
Arsenic, As	ND					0.5	mg/kg
Barium, Ba	ND					0.5	mg/kg
Beryllium, Be	ND					0.5	mg/kg
Cadmium, Cd	ND					0.5	mg/kg
Cobalt, Co	ND					0.5	mg/kg
Chromium, Cr	ND					0.5	mg/kg
Copper, Cu	ND					0.5	mg/kg
Molybdenum, Mo	ND					0.5	mg/kg
Nickel, Ni	ND					0.5	mg/kg
Lead, Pb	ND					0.5	mg/kg
Antimony, Sb	ND					0.5	mg/kg
Selenium, Se	ND					0.5	mg/kg
Thallium, Tl	ND					0.5	mg/kg
Vanadium, V	ND					0.5	mg/kg
Zinc, Zn	ND					0.5	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **I17031102** **Prepared:** 3/11/2017 **Analyzed:** 3/11/2017

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

	Result	Spike Level	% REC	% RPD	% REC Limits	Units
LCS:	**I170311-LCS2**					
Analytes:						
Barium, Ba	**194**	200	97%		80 - 120	mg/kg
Cobalt, Co	**53.0**	50.0	106%		80 - 120	mg/kg
Lead, Pb	**51.5**	50.0	103%		80 - 120	mg/kg
Selenium, Se	**174**	200	87%		80 - 120	mg/kg
Zinc, Zn	**52.7**	50.0	105%		80 - 120	mg/kg
LCSD:	**I170311-LCSD2**					
Barium, Ba	**194**	200	97%	0.2%	80 - 120	mg/kg
Cobalt, Co	**52.5**	50.0	105%	0.9%	80 - 120	mg/kg
Lead, Pb	**51.2**	50.0	102%	0.6%	80 - 120	mg/kg
Selenium, Se	**173**	200	87%	0.6%	80 - 120	mg/kg
Zinc, Zn	**52.5**	50.0	105%	0.4%	80 - 120	mg/kg

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/15/2017
Client Address:	222 E. Huntington Drive, Suite 211 Monrovia, CA 91016	**JEL Ref. No.:** **Client Ref. No.:**	ST-10315 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	USC/Parking Lot 1	**Date Analyzed:**	3/13&15/2017
Project Address:	NE Corner of W. MLK Blvd. + S. Vermont Ave. Los Angeles, CA	**Physical State:**	Soil

BATCH: **H17031002** **Prepared:** 3/10/2017 **Analyzed:** 3/13/2017

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

	Result	Spike Level	% REC	% RPD	% REC Limits	Units
METHOD BLANK:	**H170310-BLK2**					
Analytes:						
Mercury, Hg	ND					mg/kg
LCS:	**H170310-LCS2**					
Mercury, Hg	**0.88**	1.00	88%		80 - 120	mg/kg
LCSD:	**H170310-LCSD2**					
Mercury, Hg	**0.86**	1.00	86%	**1.5%**	75 - 125	mg/kg

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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SAMPLE RECEIPT FORM

Jones ID: ST-10315

CLIENT: Converse
PROJECT: 17-42-1000-02

DATE/TIME: 3/9/17 18:18
RECEIVED BY: Jessica Kyees

Delivered by: ☐ Client ☒ Jones Courier ☐ UPS / FedEx / USPS ☐ Other

TEMPERATURE: Temp Criteria = 6°C > Temp > 0°C (NO frozen containers)

Temperature	Cooler #1	21.8 °C ± 0.1°C	Blank	(Sample)
Temperature	Cooler #2	____.____ °C ± 0.1°C	Blank	Sample
Temperature	Cooler #3	____.____ °C ± 0.1°C	Blank	Sample

☒ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Samples not received on ice.*

Ambient Temperature: 26.0 °C

Checked by: JK

SAMPLE CONDITION:	YES	NO*	N/A
Chain of Custody (COC) document(s) received complete with samples	☒	☐	☐
☐ Collection date, collection time, matrix, and/or # of containers logged in based on sample labels missing. (circle)			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sample container label(s) consistent with COC	☒	☐	☐
Total number of containers received match COC	☒	☐	☐
Custody Seals Intact on Cooler/Sample	☐	☐	☒
Sample container(s) intact and in good condition	☒	☐	☐
Proper containers and sufficient volume for analyses requested	☒	☐	☐
Proper preservation noted on COC and sample container	☐	☐	☒
Volatile analysis container(s) free of headspace	☐	☐	☒
Tedlar bag(s) free of condensation	☐	☐	☒

CONTAINER TYPE:

Solid: Acetate Sleeve, Encore

Air/SG: ____

Aqueous: ____

*Complete Non-Conformance if checked

Checked by: JK

Comments:

Sample collection time not indicated on containers.

Chain-of-Custody Record

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Santa Fe Springs, CA 90670
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ST-10315

Client: Converse Consultants	Date: 3/9/17
Project Name: USC/Parking Lot 1	Client Project #: 17-42-106-02
Project Address: NE Corner of W.MLK BLVD. & S.Vermont Ave. Los Angeles, CA	
Email: Mvanfleet@conversecconsultants.com	
Phone: (626) 930-1200	
Report To: Michael Van Fleet	Sampler: Kristin Tsumura

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☒ Normal

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Project # 17-42-106-02

Page 1 of 4

Lab Use Only
Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Analysis Requested

Sample ID	Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	EPA 8260	8015M	6010-Title 22 Metals	Number of Containers	Notes & Special Instructions
B-1-2	3/9/17	7:30AM	ST-10315-01	Ice	AS/Encore	S	X	X	X	2	
B-1-5		7:32	ST-10315-02				X	X	X	2	
10		7:40	ST-10315-03				—	—	—	2	Hold
15		7:45	ST-10315-04				X	X	X	2	
B-2-2		8:10	ST-10315-05				X	X	X	2	
5		8:15	ST-10315-06				X	X	X	2	
10		8:25	ST-10315-07				X	X	X	2	
15		8:30	ST-10315-08				—	—	—	2	Hold
B-3-2		8:50AM	ST-10315-09				X	X	X	2	
B-3-5		8:55AM	ST-10315-10				X	X	X	2	

Relinquished By (Signature): Kristin Tsumura	Printed Name: Kristin Tsumura	Received By (Signature): Annalise O'Toole	Printed Name: Annalise O'Toole	20 Total Number of Containers
Company: Converse Consultants	Date: 3/9/17 Time: 4:00PM	Company: Jones Environmental	Date: 3/9/17 Time: 1602	
Relinquished By (Signature): Annalise O'Toole	Printed Name: Annalise O'Toole	Received By Laboratory (Signature):	Printed Name: Jessica Kyees	
Company: Jones Environmental	Date: 3-9-17 Time: 1817	Company: Jones Environmental	Date: 3/9/17 Time: 1818	

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Chain-of-Custody Record

ST-10315

Client	Converse Consultants
Project Name	USC/Parking Lot 1
Project Address	NE Corner W. MLK Blvd + Sverdrup
	Los Angeles, CA
Email	MVanFleet@ConverseConsultants.com
Phone	(626) 930-1200
Report To	M. VanFleet
Sampler	+ Kristin Tsumura
Date	3/9/17
Client Project #	17-42-106-02

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☒ Normal

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Project # 17-42-106-02

Page 2 of 4

Lab Use Only

Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Analysis Requested

Sample ID	Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	EPA 8260	8015M	6010 Title 22	Number of Containers	Notes & Special Instructions
B-3-10	3/9/17	9:00AM	ST-10315-11	Ice	AS/Encore	S				2	Hold
15		9:05AM	ST-10315-12				X	X	X	2	
B-4-2		9:50	ST-10315-13				X	X	X	2	
5		9:55	ST-10315-14				X	X	X	2	
10		10:00	ST-10315-15				X	X	X	2	
15		10:05	ST-10315-16							2	Hold
B-5-2		10:50	ST-10315-17				X	X	X	2	
5		10:55	ST-10315-18				X	X	X	2	
10		11:00	ST-10315-19				~~X~~	~~X~~	~~X~~	2	Hold
15		11:05	ST-10315-20				X	X	X	2	~~Hold~~ Run

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name	20	Total Number of Containers
Kristin Tsumura	Kristin Tsumura	Annalise O'Toole	Annalise O'Toole		
Company	Date: Time:	Company	Date: Time:		
Converse Consultants	3/9/17 4:00pm	Jones Environmental	3-9-17 1605		
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name		
Annalise O'Toole	Annalise O'Toole		Jessica Kyees		
Company	Date: Time:	Company	Date: Time:		
Jones Environmental	3-9-17 1815	Jones Environmental	3/9/17 1818		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

JONES ENVIRONMENTAL, INC.

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Chain-of-Custody Record

ST-10315

Client	Converse Consultants
Date	3/9/17
Project Name	USC/Parking Lot 1
Client Project #	17-42-106-02
Project Address	NE corner of N. MLK Blvd. + S. Vermont
	Los Angeles, CA
Email	Mvanfleet@conserveconsultants.com
Phone	(626) 930-1200
Report To	M. van Fleet
Sampler	+ Kristin Tsumura

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☒ Normal

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Project # 17-42-106-02

Page 3 of 4

Lab Use Only

Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Analysis Requested

Sample ID	Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	EPA 8260	8015M	6010 Title 22	Number of Containers	Notes & Special Instructions
B-6-2	3/9/17	11:25AM	ST-10315-21	ice	AS/Encase	S	X	X	X	2	
5		11:30AM	ST-10315-22				X	X	X	2	
10		11:35	ST-10315-23				X	X	X	2	
15		11:40	ST-10315-24							2	Hold
B-7-2		12:00PM	ST-10315-~~25~~ 26 (SV)				X	X	X	2	
5		1205	ST-10315-~~27~~ ~~26~~ (SV) -26				X	X	X	2	
10		12:10	ST-10315-~~28~~ -27 (SV)							2	Hold
15		12:15	ST-10315-~~29~~ -28 (SV)				X	X	X	2	
B-8-2		12:45	ST-10315-29				X	X	X	2	
5		12:50	ST-10315-30				X	X	X	2	

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name	20	Total Number of Containers
Kristin Tsumura	Kristin Tsumura	Annalise O'Toole	Annalise O'Toole		
Company	Date: Time:	Company	Date: Time:		
Converse Consultants	3/9/17 4:00PM	Jones Environmental	3/9/17 1603		
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name		
Annalise O'Toole	Annalise O'Toole		Jessica Kyeas		
Company	Date: Time:	Company	Date: Time:		
Jones Environmental	3-9-17 1815	Jones Environmental	3/9/17 1818		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Chain-of-Custody Record

ST-10315

Project # 17-42-106-02

Page 4 of 4

Lab Use Only

Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☑ Normal

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Client: Converse Consultants
Date: 3/9/17
Project Name: USC/parking Lot 1
Client Project #: 17-42-106-02
Project Address: NE Corner W.MLK Blvd + S. Vermont. Los Angeles, CA
Email: Mvanfleet@conserveconsultants.com
Phone: (626) 930-1200
Report To: Michael VanFleet
Sampler: Kristin Tsumura

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Analysis Requested

Sample ID	Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	EPA 8260	8015M	6010 – Title 22 Metals	Number of Containers	Notes & Special Instructions
B-8-10	3/9/17	12:55pm	ST-10315-31	ice	AS/Encore	S	X	X	X	2	
↓ 15		1:00pm	ST-10315-32							2	Hold
B-9-2		1:15pm	ST-10315-33				X	X	X	2	
5		1:20pm	ST-10315-34				X	X	X	2	
10		1:25pm	ST-10315-35							2	Hold
↓ 15	↓	1:30pm	ST-10315-36	↓	↓	↓	X	X	X	2	

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name	12	Total Number of Containers
Company	Date: Time:	Company	Date: Time:		
Converse Consultants	3/9/17 4:00PM	Jones Environmental	3-9-17 1602		
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name		
Company	Date: Time:	Company	Date: Time:		
Jones Environmental	3-9-17 1818	Jones Environmental	3/9/17 1818		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Analytical Report – Soil Vapor Samples

Appendix D

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**JEL Ref. No.:**	D-1272
		Client Ref. No.:	17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project Name:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-pentane, n-hexane, or n-heptane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval:

Colby Wakeman
Operations Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:** **Client Ref. No.:**	D-1272 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B1-5**	**B1-15**	**B2-5**	**B2-15**	**B3-5**		
Jones ID:	**D-1272-01**	**D-1272-02**	**D-1272-03**	**D-1272-04**	**D-1272-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	**18.6**	ND	**27.2**	**36.0**	ND	8.0	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Bromodichloromethane	ND	ND	**12.6**	ND	ND	8.0	µg/m3
Bromoform	ND	ND	ND	ND	ND	8.0	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8.0	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Chloroform	ND	ND	ND	ND	ND	8.0	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B1-5**	**B1-15**	**B2-5**	**B2-15**	**B3-5**		
Jones ID:	**D-1272-01**	**D-1272-02**	**D-1272-03**	**D-1272-04**	**D-1272-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
Ethylbenzene	ND	**22.0**	ND	**9.0**	**30.2**	8.0	µg/m3
Freon 113	ND	ND	ND	ND	ND	40.0	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8.0	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8.0	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40.0	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Styrene	ND	ND	ND	**10.2**	ND	8.0	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Tetrachloroethene	**52.8**	**37.0**	**115**	ND	**75.4**	8.0	µg/m3
Toluene	**27.2**	**70.8**	**82.8**	**133**	**61.0**	8.0	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40.0	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
Trichlorofluoromethane	ND	ND	**11.2**	ND	**8.2**	8.0	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	**12.0**	ND	8.0	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8.0	µg/m3
m,p-Xylene	**19.4**	**86.0**	**28.4**	**60.2**	**112**	8.0	µg/m3
o-Xylene	ND	**13.8**	ND	**15.0**	**16.4**	8.0	µg/m3
MTBE	ND	ND	ND	ND	ND	40.0	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40.0	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	**2330**	ND	**7650**	**5420**	ND	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	104%	110%	114%	107%	105%	60 - 140	
Toluene-d_8	89%	97%	95%	88%	88%	60 - 140	
4-Bromofluorobenzene	89%	96%	94%	87%	87%	60 - 140	
	D1-030917-CHECKS	E2-030917-CHECKS	E2-030917-CHECKS	D1-030917-CHECKS	D1-030917-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:** **Client Ref. No.:**	D-1272 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B3-15**	**B5-5**	**B5-5 REP**	**B5-15**	**B7-5**		
Jones ID:	**D-1272-06**	**D-1272-07**	**D-1272-08**	**D-1272-09**	**D-1272-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	**11.6**	ND	ND	**64.6**	**29.4**	8.0	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8.0	µg/m3
Bromoform	ND	ND	ND	ND	ND	8.0	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8.0	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Chloroform	ND	ND	ND	ND	ND	8.0	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B3-15**	**B5-5**	**B5-5 REP**	**B5-15**	**B7-5**		
Jones ID:	**D-1272-06**	**D-1272-07**	**D-1272-08**	**D-1272-09**	**D-1272-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
Ethylbenzene	ND	**12.0**	**9.0**	**14.0**	**15.4**	8.0	µg/m3
Freon 113	ND	**86.8**	**84.8**	**37.8**	ND	40.0	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8.0	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8.0	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40.0	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Styrene	**13.2**	ND	ND	**8.2**	ND	8.0	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Tetrachloroethene	**223**	**293**	**275**	**147**	ND	8.0	µg/m3
Toluene	**59.8**	**36.0**	**25.2**	**154**	**130**	8.0	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40.0	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
Trichlorofluoromethane	**12.2**	**15.0**	**16.4**	**8.0**	ND	8.0	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2,4-Trimethylbenzene	**16.4**	ND	ND	**12.6**	ND	8.0	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8.0	µg/m3
m,p-Xylene	**33.4**	**55.8**	**44.0**	**78.2**	**84.0**	8.0	µg/m3
o-Xylene	**8.8**	**9.8**	**7.2**	**20.6**	**19.8**	8.0	µg/m3
MTBE	ND	ND	ND	ND	ND	40.0	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40.0	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	**11000**	**3650**	**3360**	**7700**	**5120**	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	110%	108%	112%	106%	105%	60 - 140	
Toluene-d_8	94%	95%	94%	91%	89%	60 - 140	
4-Bromofluorobenzene	96%	95%	97%	90%	91%	60 - 140	
	E2-030917-CHECKS	D1-030917-CHECKS	D1-030917-CHECKS	E2-030917-CHECKS	D1-030917-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:** **Client Ref. No.:**	D-1272 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:** **Date Received:**	3/9/2017 3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B7-15**	**B8-5**	**B8-15**	**B9-5**	**B9-15**		
Jones ID:	**D-1272-11**	**D-1272-12**	**D-1272-13**	**D-1272-14**	**D-1272-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	**28.6**	ND	**25.8**	ND	**47.0**	8.0	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8.0	µg/m3
Bromoform	ND	ND	ND	ND	ND	8.0	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8.0	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Chloroform	ND	ND	ND	ND	ND	8.0	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8.0	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B7-15**	**B8-5**	**B8-15**	**B9-5**	**B9-15**		
Jones ID:	**D-1272-11**	**D-1272-12**	**D-1272-13**	**D-1272-14**	**D-1272-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8.0	µg/m3
Ethylbenzene	**8.0**	ND	**13.0**	ND	**32.2**	8.0	µg/m3
Freon 113	**67.8**	**11.6**	**11.4**	ND	ND	40.0	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8.0	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8.0	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8.0	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40.0	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Styrene	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Tetrachloroethene	**221**	**57.2**	**75.0**	**36.8**	ND	8.0	µg/m3
Toluene	**98.8**	**29.6**	**102**	**19.2**	**231**	8.0	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40.0	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8.0	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8.0	µg/m3
Trichlorofluoromethane	**19.4**	**19.6**	**15.6**	**16.6**	**13.0**	8.0	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8.0	µg/m3
1,2,4-Trimethylbenzene	**10.8**	ND	**19.6**	ND	**37.4**	8.0	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8.0	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8.0	µg/m3
m,p-Xylene	**39.8**	**13.2**	**66.8**	ND	**156**	8.0	µg/m3
o-Xylene	**10.8**	ND	**17.4**	ND	**40.2**	8.0	µg/m3
MTBE	ND	ND	ND	ND	ND	40.0	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40.0	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40.0	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	**5030**	ND	**4060**	ND	**4100**	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	108%	107%	112%	104%	108%	60 - 140	
Toluene-d_8	96%	89%	96%	90%	98%	60 - 140	
4-Bromofluorobenzene	98%	89%	94%	90%	99%	60 - 140	
	E2-030917-CHECKS	D1-030917-CHECKS	E2-030917-CHECKS	D1-030917-CHECKS	E2-030917-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:** **Client Ref. No.:**	D-1272 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B4-5**	**B4-15**	**B6-5**	**B6-15**		
Jones ID:	**D-1272-16**	**D-1272-17**	**D-1272-18**	**D-1272-19**	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	**92.2**	ND	**33.4**	8.0	µg/m3
Bromobenzene	ND	ND	ND	ND	8.0	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8.0	µg/m3
Bromoform	ND	ND	ND	ND	8.0	µg/m3
n-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8.0	µg/m3
Chlorobenzene	ND	ND	ND	ND	8.0	µg/m3
Chloroform	ND	ND	ND	ND	8.0	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	8.0	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	8.0	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8.0	µg/m3
Dibromomethane	ND	ND	ND	ND	8.0	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B4-5**	**B4-15**	**B6-5**	**B6-15**		
Jones ID:	**D-1272-16**	**D-1272-17**	**D-1272-18**	**D-1272-19**	**Practical Quantitation Limit**	**Units**
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3
Ethylbenzene	ND	**26.6**	ND	**15.8**	8.0	µg/m3
Freon 113	**51.6**	**28.6**	**89.6**	**94.6**	40.0	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	8.0	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8.0	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8.0	µg/m3
Methylene chloride	ND	ND	ND	ND	8.0	µg/m3
Naphthalene	ND	ND	ND	ND	40.0	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8.0	µg/m3
Styrene	ND	**9.4**	ND	ND	8.0	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	8.0	µg/m3
Tetrachloroethene	**150**	**25.4**	**190**	**265**	8.0	µg/m3
Toluene	**38.4**	**284**	**28.0**	**148**	8.0	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	40.0	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8.0	µg/m3
Trichloroethene	ND	ND	ND	ND	8.0	µg/m3
Trichlorofluoromethane	ND	**18.2**	**20.8**	**23.4**	8.0	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,2,4-Trimethylbenzene	ND	**23.0**	ND	**17.2**	8.0	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8.0	µg/m3
Vinyl chloride	ND	ND	ND	ND	8.0	µg/m3
m,p-Xylene	ND	**116**	**14.8**	**81.0**	8.0	µg/m3
o-Xylene	ND	**32**	ND	**21.0**	8.0	µg/m3
MTBE	ND	ND	ND	ND	40.0	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40.0	µg/m3
Di-isopropylether	ND	ND	ND	ND	40.0	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40.0	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	**2730**	**8130**	**2460**	**4360**	2000	µg/m3
TIC:						
n-Pentane	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane	106%	108%	108%	111%	60 - 140	
Toluene-d_8	87%	94%	89%	93%	60 - 140	
4-Bromofluorobenzene	88%	95%	87%	93%	60 - 140	
	D1-030917-CHECKS	E2-030917-CHECKS	D1-030917-CHECKS	E2-030917-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:** **Client Ref. No.:**	D-1272 17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	030917-D1MB1	030917-D1SB1	030917-E2MB1	030917-E2SB1	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	ND	ND	ND	8.0	µg/m3
Bromobenzene	ND	ND	ND	ND	8.0	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8.0	µg/m3
Bromoform	ND	ND	ND	ND	8.0	µg/m3
n-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	8.0	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8.0	µg/m3
Chlorobenzene	ND	ND	ND	ND	8.0	µg/m3
Chloroform	ND	ND	ND	ND	8.0	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	8.0	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	8.0	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8.0	µg/m3
Dibromomethane	ND	ND	ND	ND	8.0	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8.0	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	**030917-D1MB1**	**030917-D1SB1**	**030917-E2MB1**	**030917-E2SB1**	**Practical Quantitation Limit**	**Units**
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8.0	µg/m3
Ethylbenzene	ND	ND	ND	ND	8.0	µg/m3
Freon 113	ND	ND	ND	ND	40.0	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	8.0	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8.0	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8.0	µg/m3
Methylene chloride	ND	ND	ND	ND	8.0	µg/m3
Naphthalene	ND	ND	ND	ND	40.0	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8.0	µg/m3
Styrene	ND	ND	ND	ND	8.0	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	8.0	µg/m3
Tetrachloroethene	ND	ND	ND	ND	8.0	µg/m3
Toluene	ND	ND	ND	ND	8.0	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	40.0	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	8.0	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8.0	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8.0	µg/m3
Trichloroethene	ND	ND	ND	ND	8.0	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	8.0	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8.0	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	8.0	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8.0	µg/m3
Vinyl chloride	ND	ND	ND	ND	8.0	µg/m3
m,p-Xylene	ND	ND	ND	ND	8.0	µg/m3
o-Xylene	ND	ND	ND	ND	8.0	µg/m3
MTBE	ND	ND	ND	ND	40.0	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40.0	µg/m3
Di-isopropylether	ND	ND	ND	ND	40.0	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40.0	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	2000	µg/m3
TIC:						
n-Pentane	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane	95%	99%	116%	113%	60 - 140	
Toluene-d_8	87%	88%	91%	92%	60 - 140	
4-Bromofluorobenzene	85%	86%	96%	93%	60 - 140	
	D1-030917-CHECKS	D1-030917-CHECKS	E2-030917-CHECKS	E2-030917-CHECKS		

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:**	D-1272
		Client Ref. No.:	17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: D1-030917-CHECKS

Jones ID:	**030917-D1LCS1**	**030917-D1LCSD1**			**030917-D1CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	127%	118%	7.2%	70 - 130	114%	80 - 120
1,1-Dichloroethene	94%	87%	8.1%	70 - 130	105%	80 - 120
Cis-1,2-Dichloroethene	99%	92%	7.1%	70 - 130	100%	80 - 120
1,1,1-Trichloroethane	88%	83%	5.9%	70 - 130	91%	80 - 120
Benzene	96%	91%	5.2%	70 - 130	90%	80 - 120
Trichloroethene	101%	93%	7.7%	70 - 130	96%	80 - 120
Toluene	92%	84%	8.9%	70 - 130	97%	80 - 120
Tetrachloroethene	84%	83%	0.7%	70 - 130	94%	80 - 120
Chlorobenzene	96%	91%	4.4%	70 - 130	91%	80 - 120
Ethylbenzene	93%	89%	4.0%	70 - 130	98%	80 - 120
1,2,4 Trimethylbenzene	99%	93%	6.1%	70 - 130	103%	80 - 120
Gasoline Range Organics (C4-C12)	95%	89%	6.0%	70 - 130		
Surrogate Recovery:						
Dibromofluoromethane	98%	99%		60 - 140	99%	60 - 140
Toluene-d_8	89%	89%		60 - 140	97%	60 - 140
4-Bromofluorobenzene	88%	88%		60 - 140	95%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Converse Consultants	**Report date:**	3/9/2017
Client Address:	10391 Corporate Drive Redlands, CA 92374	**Jones Ref. No.:**	D-1272
		Client Ref. No.:	17-42-106-02
Attn:	Michael Van Fleet	**Date Sampled:**	3/9/2017
		Date Received:	3/9/2017
Project:	Lot 1	**Date Analyzed:**	3/9/2017
Project Address:	1001 W. Martin Luther King Jr. Blvd. Los Angeles, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E2-030917-CHECKS

Jones ID:	**030917-E2LCS1**	**030917-E2LCSD1**			**030917-E2CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	96%	99%	3.0%	70 - 130	84%	80 - 120
1,1-Dichloroethene	106%	120%	12.8%	70 - 130	85%	80 - 120
Cis-1,2-Dichloroethene	110%	111%	0.4%	70 - 130	102%	80 - 120
1,1,1-Trichloroethane	127%	123%	3.8%	70 - 130	125%	80 - 120
Benzene	141%	136%	3.5%	70 - 130	135%	80 - 120
Trichloroethene	114%	111%	3.1%	70 - 130	114%	80 - 120
Toluene	115%	113%	2.1%	70 - 130	114%	80 - 120
Tetrachloroethene	113%	113%	0.1%	70 - 130	115%	80 - 120
Chlorobenzene	109%	112%	2.2%	70 - 130	110%	80 - 120
Ethylbenzene	108%	106%	1.8%	70 - 130	106%	80 - 120
1,2,4 Trimethylbenzene	106%	105%	1.1%	70 - 130	106%	80 - 120
Gasoline Range Organics (C4-C12)	118%	115%	2.2%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	105%	107%		60 - 140		60 - 140
Toluene-d_8	96%	98%		60 - 140		60 - 140
4-Bromofluorobenzene	95%	101%		60 - 140		60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

JONES ENVIRONMENTAL, INC.

11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client: Converse Consultants

Project Name: Mission Cleaners

Project Address: 1001 W. Martin Luther King, Jr. Blvd.

Los Angeles, CA

Email:

Phone: (626)524-9320

Report To: Michael Van Fleet

Sampler: Annalise O'Toole

Date: 3/9/2017

Client Project #: 17-42-106-02

Purge Number: □ 1P □ 3P □ 7P □ 10P

Shut-In Test: Y / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

LAB USE ONLY

Jones Project #: D-1272

Page 1 of 2

Sample Container: GASTIGHT GLASS SYRINGER

If different than above, see Notes.

Turn Around Requested:
- □ Immediate Attention
- □ Rush 24 Hours
- □ Rush 48 Hours
- □ Rush 72 Hours
- □ Normal
- □ Mobile Lab

Tracer:
- □ n-pentane
- □ n-hexane
- □ n-heptane
- □ Helium
- □ 1,1-DFA
- □ _____

Reporting Limits Requested: □ Commercial □ Residential

Units: _____

Analysis Requested

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA8260B (VOCs)				Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
B1-5	3	1980	3/9/17	11:38	11:43	D-1272-01	~200	ANGELA.2	M100.111	SG	X				10	2	
B1-15	3	2150	3/9/17	11:39	11:44	D-1272-02	~200	EXTRA.1	M100.113	SG	X				10	2	
B2-5	3	1980	3/9/17	11:52	12:02	D-1272-03	~200	ANGELA.2	M100.111	SG	X				6	2	
B2-15	3	2150	3/9/17	11:53	12:01	D-1272-04	~200	EXTRA.1	M100.113	SG	X				60	2	
B3-5	3	1980	3/9/17	12:15	12:20	D-1272-05	~200	ANGELA.2	M100.111	SG	X				10	2	
B3-15	3	2150	3/9/17	12:17	12:21	D-1272-06	~200	EXTRA.1	M100.113	SG	X				10	2	
B5-5	3	1980	3/9/17	13:22	13:22	D-1272-07	~200	ANGELA.2	M100.111	SG	X				6	2	
B5-5 REP	3	1980	3/9/17	13:35	13:39	D-1272-08	~200	ANGELA.2	M100.111	SG	X				6	2	
B5-15	3	2150	3/9/17	13:36	13:40	D-1272-09	~200	EXTRA.1	M100.113	SG	X				60	2	LOW FLOW
B7-5	3	1980	3/9/17	14:47	14:50	D-1272-10	~200	ANGELA.2	M100.111	SG	X				6	2	

Relinquished By (Signature): Kristin Tsumura	**Printed Name:** Kristin Tsumura	**Received By (Signature):** Annalise O'Toole	**Printed Name:** ANNALISE O'TOOLE
Company: Converse Consultants	**Date:** 3/9/17 **Time:** 4:24PM	**Company:** JONES ENVIRONMENTAL, INC.	**Date:** 3/9/2017 **Time:** 1624
Relinquished By (Signature):	**Printed Name:**	**Received By Laboratory (Signature):**	**Printed Name:**
Company:	**Date:** **Time:**	**Company:**	**Date:** **Time:**

20 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

JONES ENVIRONMENTAL, INC.
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Soil-Gas Chain-of-Custody Record

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Phone: (626)524-9320
Report To: Michael Van Fleet
Sampler: Annalise O'Toole

Date: 3/9/2017
Client Project #: 17-42-106-02

Purge Number: □ 1P □ 3P □ 7P □ 10P
Shut-In Test: Y / N

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Turn Around Requested
□ Immediate Attention
□ Rush 24 Hours
□ Rush 48 Hours
□ Rush 72 Hours
□ Normal
□ Mobile Lab

Tracer
□ n-pentane
□ n-hexane
□ n-heptane
□ Helium
□ 1,1-DFA
□ _____

Reporting Limits Requested □ Commercial □ Residential
Units

LAB USE ONLY
Jones Project # D-1272

Page 2 of 2
Sample Container: GASTIGHT GLASS SYRINGER
If different than above, see Notes.

Analysis Requested

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA8260B (VOCs)				Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
B7-15	3	2150	3/9/17	14:49	14:52	D-1272-11	~200	EXTRA.1	M100.113	SG	X				20	2	
B8-5	3	1980	3/9/17	15:30	15:34	D-1272-12	~200	ANGELA.2	M100.111	SG	X				<2	2	
B8-15	3	2150	3/9/17	15:32	15:35	D-1272-13	~200	EXTRA.1	M100.113	SG	X				20	2	
B9-5	3	1980	3/9/17	16:08	16:11	D-1272-14	~200	ANGELA.2	M100.111	SG	X				<2	2	
B9-15	3	2150	3/9/17	16:09	16:12	D-1272-15	~200	EXTRA.1	M100.113	SG	X				<2	2	
B4-5	3	1980	3/9/17	12:50	12:54	D-1272-16	~200	ANGELA.2	M100.111	SG	X				6	2	
B4-15	3	2150	3/9/17	12:52	12:56	D-1272-17	~200	EXTRA.1	M100.113	SG	X				16	2	
B6-5	3	1980	3/9/17	14:05	14:08	D-1272-18	~200	ANGELA.2	M100.111	SG	X				6	2	
B6-15	3	2150	3/9/17	14:06	14:09	D-1272-19	~200	EXTRA.1	M100.113	SG	X				6	2	

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name		
Kristin Tsumura	Kristin Tsumura	Annalise O'Toole	ANNALISE O'TOOLE	18	Total Number of Containers
Company	**Date / Time**	**Company**	**Date / Time**		
Converse Consultants	3/9/17 4:24	JONES ENVIRONMENTAL, INC.	3/9/2017 1623		
Relinquished By (Signature)	**Printed Name**	**Received By Laboratory (Signature)**	**Printed Name**		
Company	**Date / Time**	**Company**	**Date / Time**		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Appendix I.4

Phase II ESA
Parking Lots 2 and 3

Phase II Environmental Site Assessment Report

Parking Lots 2 and 3
Located North & South of 39th Street/Exposition Park Drive Between Vermont Avenue and Bill Robertson Lane
Los Angeles, California

Converse Project No. 10-42-176-04

December 8, 2016

Prepared For:

University of Southern California
Real Estate & Asset Management
3335 South Figueroa Street
Unit G/UGW 110
Los Angeles, California 90089

Prepared By:

Converse Consultants
3176 Pullman Avenue
Suite 108
Costa Mesa, California 92626

Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

December 8, 2016

Mr. Brian C. League
Executive Director, Real Estate Development
Real Estate & Asset Management
University of Southern California
3335 S. Figueroa Street, Unit G/UGW 110
Los Angeles, California 90089

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**
Parking Lots 2 and 3
Located North and South of 39th Street/Exposition Park Drive
Between Vermont Avenue and Bill Robertson Lane
Los Angeles, California
Converse Project No. 10-42-176-04

Mr. League:

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a *Phase II Environmental Site Assessment (Phase II ESA)* that was conducted at the referenced property.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact either Laura Tanaka at (714) 444-9660 or Michael Van Fleet at (909) 796-0544.

Sincerely,

CONVERSE CONSULTANTS

PROFESSIONAL GEOLOGIST
MICHAEL A. VAN FLEET
No. 7869
STATE OF CALIFORNIA

Michael Van Fleet, PG
Senior Geologist

Laura Tanaka
Principal Environmental Scientist

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1.0 Introduction

This Report presents the results of the Converse Consultants (Converse) *Phase II Environmental Site Assessment* (*ESA*) that was performed at Parking Lots 2 and 3, which are generally located north and south of 39th Street/Exposition Park Drive, between Vermont Avenue and Bill Robertson Lane in the City of Los Angeles, Los Angeles County, California, referred to as the "Site" in this Report. Converse was retained by University of Southern California, Real Estate & Asset Management (User), to conduct the Phase *II ESA* at the Site. The scope of this *Phase II ESA* was completed in accordance with the proposal dated November 2, 2016.

Converse generally followed the standard practices of the American Society for Testing Materials (ASTM) Designation: E1903-11 *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process* (ASTM, E 1903-11). The purpose of conducting the *Phase II ESA* in accordance with ASTM E1903-11 is to acquire and evaluate information sufficient to achieve the objective(s) set forth in the "Statement of Objectives" developed by the *User* and Converse. The proposed Scope of Services is based upon the findings and conclusions presented in a Phase I ESA Report, dated October 5, 2016, prepared by Converse Consultants, and were to:

1. Assess the extents to which soil may have potentially been impacted by historical former gas station, manufacturing, and dry cleaning operations on the Site and adjoining properties.
2. Identify if potential target analytes are present at concentrations greater than threshold criteria.

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2.0 Background

Details in the following sections regarding the Site and surrounding areas were obtained from the Converse Consultants Phase I ESA Report.

2.1 Site Description and Features

2.1.1 Current Uses of the Site

The Site consists of two asphalt-paved parking lots, Lot 2 and Lot 3, which are generally located west of the Los Angeles Memorial Coliseum.

Lot 2 consists of one (1) rectangular-shaped parcel approximately 3.4-acres in size.

Lot 3 consists of five (5) rectangular-shaped parcels totaling approximately 5.3-acres.

A small pay-booth is located on each of the two (2) parking lots.

2.1.2 Location and Legal Description

Parking Lot 2:
The parking lot is bound by 39th Street to the north, Leighton Avenue to the south, Bill Robertson Lane to the east, and Vermont Avenue to the west.

The Los Angeles County Assessor's Parcel Number (APN) is 5037-027-923.

Parking Lot 3:
The parking lot is bound by the Jesse A. Brewer Jr. Park to the north, 39th Street to the south, Bill Robertson Lane to the east, and Vermont Avenue to the west.

The APNs associated with this parking lot are 5037-028-903, 5037-028-904, 5037-028-912, 5037-028-914 and 5037-028-915. Addresses associated with two of the five APNs are as follows:

- APN 5037-028-914 - 3800 South Vermont Avenue
- APN 5037-028-915 - 3798 South Vermont Avenue.

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2.1.3 Site and Vicinity General Characteristics

The vicinity of the Site is characterized primarily by a mix of primarily multi-family residential developments and sporadic commercial developments along the west side of South Vermont Avenue. The property to the east of the Site is currently occupied by the Los Angeles Memorial Coliseum, and the Natural History Museum of Los Angeles.

2.2 Physical Setting

2.2.1 Topography

The Site is located approximately 175 feet above mean sea level with surface topography sloping towards the west (United States Geological Survey [USGS] Topographic Map, Hollywood, California, 2012).

2.2.2 Geology

The Site is underlain by unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 2010).

The Site specific subsurface conditions are described in Section 4.1.

2.2.3 Hydrogeology

The nearest groundwater well to the Site is located approximately 2.0-miles west-southwest of the Site, near the intersection of 5th Avenue and W. 43rd Avenue. When Los Angeles County, Department of Public Works (DPW) well number 2679G was measured on September 22, 2009, the depth to groundwater was recorded at 169.6 feet below ground surface (bgs). The surface elevation was recorded at 129.9 feet above mean sea level.

The Site was not covered on currently published groundwater contour maps. Therefore, the direction of regional groundwater is inferred to follow surface topography to the west.

2.3 Site History and Land Use

As early as 1900, the Site was partially developed for residential and/or agricultural purposes. By 1907, the Site was occupied by scattered residential

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dwellings and vacant lots. As early as 1922, commercial structures were introduced to the Site.

- In 1922, a "dyeing and cleaning" shop was depicted at 3910-3912 South Vermont Avenue (Lot 2). No agriculturally related structures were observed at this portion of the Site by 1928.
- A gas station was constructed at 3836 South Vermont Avenue (Lot 3) in 1931 and present until as late as 1950. This address was also identified in the regulatory database as a historic gas station in 1933 and 1942.
- A gas station was identified in the regulatory database report at 3886 South Vermont Avenue (Lot 3) in 1937.
- Also identified in 1950 on Lot 3 were: a bowling pin servicing company at 3604-3608 South Vermont Avenue; an auto painting business at 3820 South Vermont Avenue; and a cabinet shop at 921-923 West 39th Street.
- Identified on Lot 2 in 1950 was an auto sales lot (3920- 3922 South Vermont Avenue), and an artificial limb manufacturer (926-928 West 39th Street).

From 1951 to 1956, the majority of the structures had been demolished or removed. The area was graded and redeveloped as parking lots; with the exception of a few multi-tenant residential properties and a restaurant. Only one residential property was present in 1994, while the remaining area was used as parking lots. However, by 2002, the Site was fully dedicated as two (2) asphalt-paved parking lots.

2.4 Adjacent Property Land Use

In the early 1900s, the adjacent properties were depicted as land with no mapped use, residential properties, streets (Agricultural Avenue, West 46th Street, South Vermont Avenue), and parts of the Agricultural Park.

By the 1920s, the adjacent properties were observed as vacant lots, residential properties, streets (Menlo Avenue, West 39th Street, Leighton Avenue, South Vermont Avenue, South Figueroa Street, and West Santa Barbara Avenue), commercial properties including two gas stations, and the Natural History Museum and Los Angeles Memorial Coliseum.

From 1950 to 1970, gas stations, were depicted as adjacent to the Site in addition to residential and commercial properties. The adjoining properties have remained in residential, commercial, and institutional uses since the 1970s.

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2.5 Summary of Previous Assessment Reports

Converse prepared a Phase I ESA Report on the Site for the University of Southern California, Real Estate & Asset Management, dated October 5, 2016.

A summary of the Site and Adjacent Properties history and land uses was provided in Sections 2.4 and 2.4 respectively.

No historical recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs) or de minimus conditions were identified at the Site.

No significant data gaps were identified that affect the ability of the Environmental Professional (EP) to identify RECs.

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3.0 Work Performed and Rationale

3.1 Scope of Assessment

A conceptual model was developed based on data presented regarding the historic use of the Site and adjoining properties.

3.1.1 Target Analytes

Data obtained during the Converse Phase I ESA indicated that volatile organic compounds (VOCs), metals, and petroleum hydrocarbons may be present in the soil, soil vapor, and/or groundwater at the Site.

3.1.2 Target Analytes First Entered the Environment

The data indicates that target analytes would have first entered the environment by surface spills or releases to the surface soil.

3.1.3 Environmental Media and Locations Most Likely to Have the Highest Concentrations of Target Analytes

The environmental media most likely to have the highest concentrations of target analytes is soil and soil vapor.

The *Phase II ESA* consisted of the following primary elements:

A total of eight (8) borings were completed in the two (2) parking lots (Lot 2 and Lot 3) that make up the Site. See Figure 2a and 2b for boring locations.

- Four (4) borings were completed on Lot 2 in the vicinity of the former “dyeing and cleaning” shop (3910-3912 South Vermont Avenue); auto sales lot (3920-3922 South Vermont Avenue); and artificial limb manufacturer (926-928 West 39th Street). The fourth boring was completed in the southern portion of Lot 2, to evaluate if historical off site gas station operations may have impacted the Site.

- Four (4) borings were completed in Lot 3 in the vicinity of the former gas stations (3836 South Vermont Avenue and 3886 South Vermont Avenue); bowling pin servicing company (3604-3608 South Vermont Avenue); auto painting (3820 South Vermont Avenue); and cabinet shop (921-923 West 39th Street).

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All borings were completed to a maximum depth of 20 feet bgs. Soil samples were collected at 1, 5, 10, 15, and 20-feet bgs. Subsamples were collected using Encore containers. A portion of all soil samples was screened in the field for VOCs using a photo-ionization detector (PID).

- One (1) soil vapor probe was installed in each boring at a depth of 5 feet bgs. The probes were constructed using ¼-diameter Teflon tubing, and samples were collected in summa canisters. Soil vapor sampling was completed in general accordance with the *Advisory-Active Soil Gas Investigations* by the California Department of Toxic Substances Control and California Regional Water Quality Control Board, dated July 2015.

  A soil vapor sample was not collected from boring location B7 due to a mechanical error with the sampling equipment. Therefore, a total of seven (7) soil vapor samples were collected.

3.2 Field Quality Assurance/Quality Control

The following are the quality assurance and quality control measures that were taken to evaluate the quality of the data generated:

- Standard Environmental Protection Agency (EPA) sample handling protocol including chain-of-custody control were followed.
- New dedicated sampling equipment (probes, gloves, acetates sleeves) were used for the collection of samples.
- Non-dedicated sampling equipment (Geoprobe sample barrel) was decontaminated between borings.

3.3 Chemical Analytical Methods

The soil samples were submitted to American Environmental Testing laboratory in Burbank under chain of custody documentation. Three (3) soil samples from various depths from each boring were analyzed for total petroleum hydrocarbons (TPH) using Environmental Protection Agency (EPA) Method 8015M, Title 22 metals using EPA Test Method 6010B, and VOCs using EPA Method 8260B. All soil samples not initially analyzed were archived by the laboratory.

All soil vapor samples were submitted to ESC Lab Sciences in Mount Juliet, Tennessee, and were analyzed for VOCs in accordance with EPA Method TO-15.

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4.0 Presentation and Evaluation of Results

4.1 Subsurface Conditions

The soils observed in subsurface samples collected were generally silty sands over the entire interval assessed (to 20 feet bgs). The soil samples were generally brown or light-brown in color and slightly moist. A PID was used to screen samples in the field, and no VOCs were detected in any of the samples. Also, No staining, odors, or other signs of contamination were noted in any of the samples.

Groundwater was not encountered in any of the borings completed to depths up to 20 feet bgs.

4.2 Analytical Results

Tabulated data for the soil and soil vapor samples are included in Table 1 and Table 2, respectively. Analytical reports from the laboratories for the soil, and soil vapor samples are provided in Appendices A and B, respectively.

4.2.1 Soil Samples

No concentrations of VOCs or TPH were detected in any of the soil samples analyzed.

A total of nine (9) metals were detected in various soil samples. With the exception of one reported arsenic concentration, all of the detected metals concentrations were below California Human Health Screening Levels (CHHSLs) and Regional Screening Levels (RSLs) for residential land use. The soil analytical data is summarized in Table 1.

- The reported concentration of arsenic in sample B1-1 of 2.73 milligrams per kilogram (mg/kg) exceeds the CHHSL and RSL values for commercial land use of 0.24 and 1.6 mg/kg, respectively. However, this concentration is less than naturally occurring background concentrations established by the Department of Toxic Substances Control (DTSC) for school sites in Southern California of 12 mg/kg. Arsenic was not detected in any of the other samples analyzed.

4.2.2 Vapor Samples

Concentrations of the chemicals reported in soil vapor samples were evaluated relative to screening levels that were calculated using formulas presented in the DTSC Vapor Intrusion Guidance, the RSLs for indoor air

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concentrations (for select chemicals screening levels established by DTSC in HHRA Note 3 were used in place of RSL values), and an attenuation factor associated with the existing development of the Site.

A total of 29 VOCs were detected in one or more of the seven (7) soil vapor samples. All concentrations were below the calculated soil-vapor screening levels for future residential and/or commercial developments. The sample results are summarized in Table 2.

4.3 Data Quality Assurance/Quality Control

4.3.1 Hold Times

All samples were transported to the laboratory under chain-of-custody documentation, and were analyzed within the appropriate hold times.

4.3.2 Laboratory Quality Assurance

The laboratory provided data to estimate precision, accuracy, and bias. The laboratory report indicates that the method blanks and matrix spikes met quality assurance objectives. Overall, the presented data are reliable and useable for project decision making. Laboratory Quality Assurance data are included in the analytical reports in Appendices A and B.

4.3.3 Practical Quantitation Limits (PQL)

- The PQL for metals in the soil ranged from 0.2 to 5.0 mg/kg.
- The PQL for TPH in the soil ranged from 1.0 to 5.0 mg/kg.
- The PQLs for the VOCs in the soil ranged from 0.001 to 0.050 mg/kg.
- The PQLs for VOCs in vapor ranged from 10 to 50 micrograms per cubic meter ($\mu g/m^3$).

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5.0 Interpretation, Conclusions & Recommendations

5.1 RECs and Potential Release Area(s)

Data obtained during the Converse Phase I ESA indicated that VOCs, metals, and petroleum hydrocarbons may be present in the soil, soil vapor, and/or groundwater at the Site due to past uses at the Site.

5.2 Conceptual Model Validation/Adequacy of Investigations

It is our opinion that the field and analytical data validated the conceptual model and the assessment adequately evaluated the identified objectives of the *Phase II ESA*.

5.3 Absence, Presence, Degree, Extent of Target Analytes

Soil
A total of nine (9) metals were detected in various soil samples. With the exception of arsenic, all of the detected metals concentrations were below applicable screening levels for residential land use. The one reported concentration of arsenic of 2.73 mg/kg in sample B1-1 was greater than the RSL and CHHSL screening levels, but is less than the naturally occurring background concentration of 12 mg/kg determined by the DTSC for the region.

Soil Vapor
A total of 29 VOCs were detected in one or more of the seven (7) soil vapor samples. All concentrations were below the calculated soil-vapor screening levels for future residential and/or commercial developments.

5.4 Other Concerns

5.4.1 Significant Assumptions

No significant assumptions need to be noted in this *Phase II ESA* report.

5.4.2 Limitations and Exceptions

Due to a mechanical issue with the soil-vapor sample canister and flow controller, a sample could not be collected from boring location B7.

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However, based on the analytical results of the seven soil-vapor samples that were collected, this does not appear to be a significant concern.

5.4.3 Special Terms and Conditions

No special terms or conditions need to be noted in this *Phase II ESA* report.

5.5 Conclusions/Objectives Met

Converse has performed a *Phase II ESA* at Parking Lots 2 and 3, which are generally located north and south of 39th Street/Exposition Park Drive, between Vermont Avenue and Bill Robertson Lane in the City of Los Angeles, Los Angeles County, California, in general conformance with the scope and limitations of ASTM, E1903-11 and the following objectives:

- Assess the extents to which soil may have potentially been impacted by historical former gas station, manufacturing, and dry cleaning operations on the Site and adjoining properties.
- Identify if potential target analytes are present at concentrations greater than threshold criteria.

Based upon the above, Converse has concluded the following:

- No concentration of VOCs or TPH were detected in any of the soil samples analyzed.
- A total of nine (9) metals were detected in various soil samples. With the exception of arsenic, all of the detected metals concentrations were below applicable screening levels for residential land use. The one reported concentration of arsenic of 2.73 mg/kg in sample B1-1 was greater than the RSL and CHHSL screening levels, but is less than the naturally occurring background concentration of 12 mg/kg determined by the DTSC for the region.
- A total of 29 VOCs were detected in one or more of soil vapor samples. All concentrations were below their respective soil-vapor screening levels for future residential and/or commercial land uses.

Based on the results of this assessment, the impacts to the Site from historical onsite and/or offsite sources appear to not have significantly impacted the Site.

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5.6 Recommendations

No further assessment of the Site appears to be warranted at this time.

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6.0 Reliance

This report is for the sole benefit and exclusive use of University of Southern California, Real Estate & Asset Management, in accordance with the terms and conditions that are presented in our proposal dated November 2, 2016, under which these services have been provided. The preparation of this report has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. This report should not be regarded as a guarantee that no further contamination beyond that which could be detected within the scope of this assessment is present at the Site.

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7.0 References and Sources of Information

California State Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (RWQCB), Advisory-Active Soil Gas Investigations, July 2015.

DTSC, Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), October 2011

DTSC, Human health Risk Assessment (HHRA) Note #3, DTSC Modified Screening levels (DTSC SLs), January 2016.

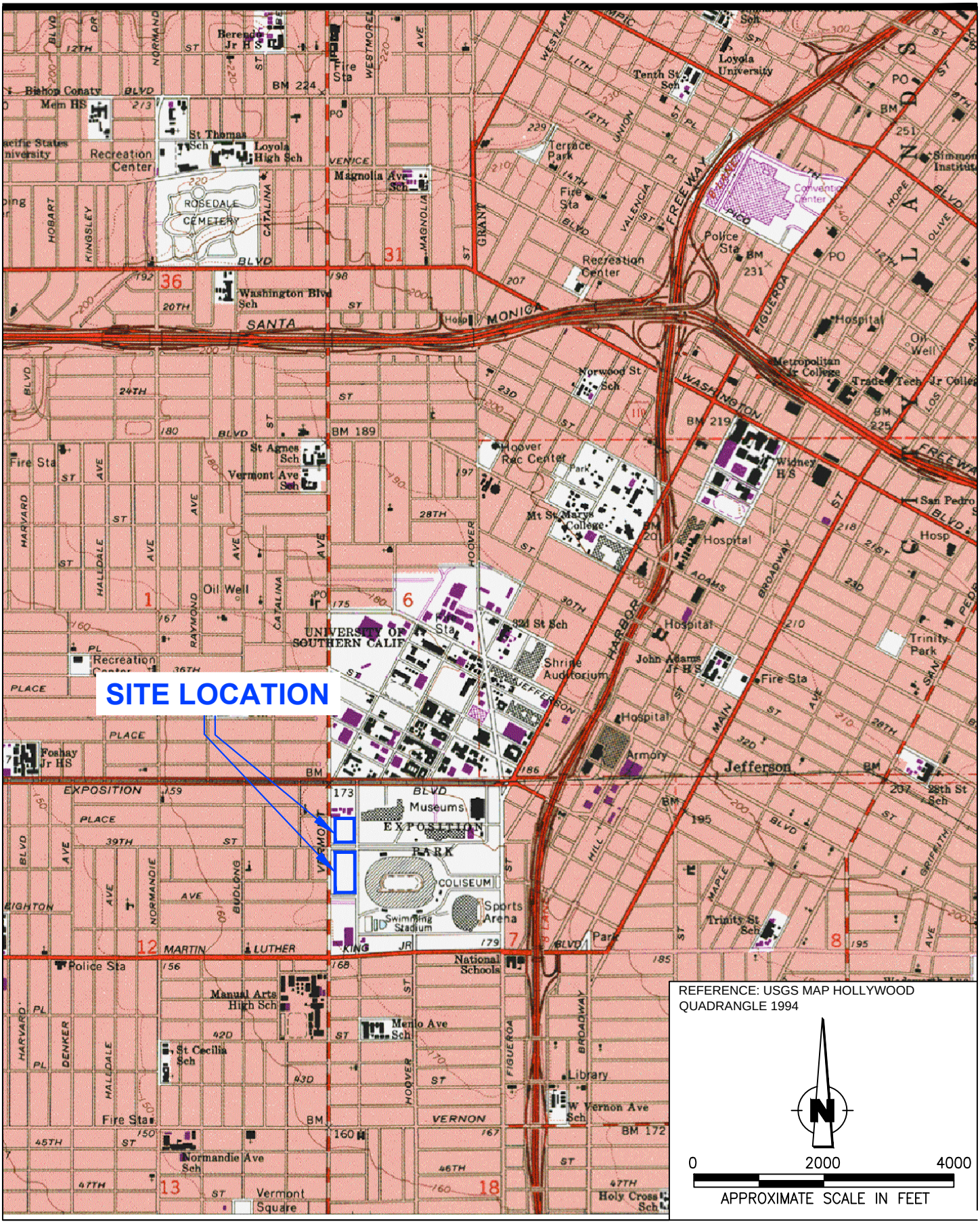
Converse Consultants, Phase I Environmental Site Assessment Report, Parking Lots 2 and 3, Located North and South of 39th Street/Exposition Park Drive, Between Vermont Avenue and Bill Robertson Lane, Los Angeles, California, October 5, 2016.

US EPA, Regional Screening Levels (RSLs), November 2015.

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Figures

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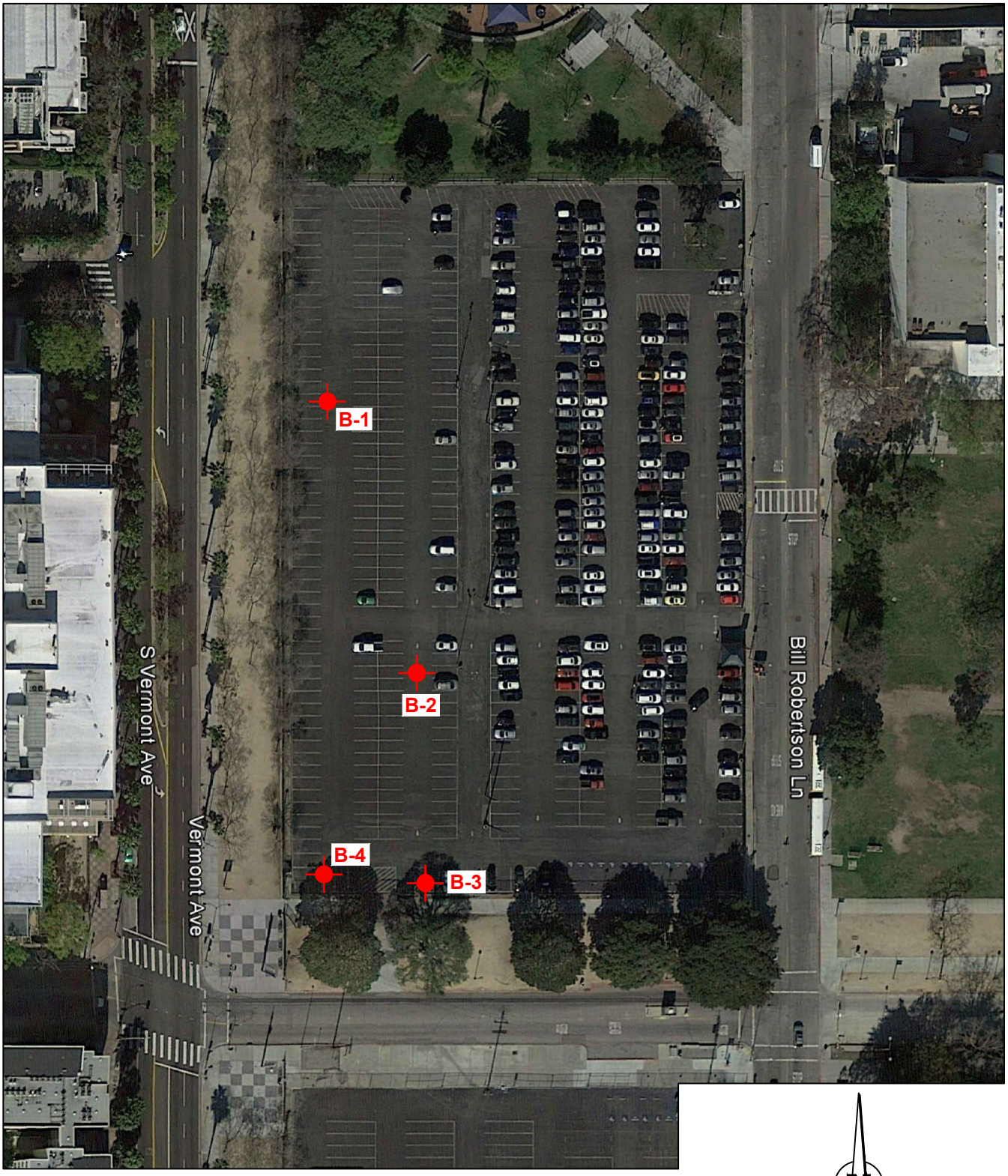


PROPERTY LOCATION MAP

Converse Consultants

UNIVERSITY OF SOUTHERN CALIFORNIA
PARKING LOTS 2 AND 3
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
10-42-176-04	1



LEGEND

SOIL SAMPLE LOCATION

SAMPLE LOCATION MAP - LOT 3

Converse Consultants

UNIVERSITY OF SOUTHERN CALIFORNIA
PARKING LOT 3
LOS ANGELES MEMORIAL COLISEUM
LOS ANGELES, CALIFORNIA

Project No.	Figure No.
10-42-176-04	2a



LEGEND

SOIL SAMPLE LOCATION

SAMPLE LOCATION MAP - LOT 2

Converse Consultants

UNIVERSITY OF SOUTHERN CALIFORNIA
PARKING LOT 2
LOS ANGELES MEMORIAL COLISEUM
LOS ANGELES, CALIFORNIA

Project No.
10-42-176-04

Figure No.
2b

Tables

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Table 1
Soil Sample Analytical Results
Los Angeles Memorial Coliseum - Parking Lots 2 and 3
Los Angeles, California

Boring Location	Depth (feet bgs)	Date	Metals (mg/kg)																All VOCs (ug/m^3)	Total Petroleum Hydrocarbons (mg/kg)		
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	V anadium	Zinc		C4-C12 (Gasoline)	C13-C22 (Diesel)	C23-C40 (Motor Oil)
B1	1	11/16/16	ND	**2.73**	**89.9**	ND	ND	**15.6**	**7.48**	**12.6**	**5.18**	ND	ND	**12.5**	ND	ND	ND	**28.9**	**40.9**	ND	ND	ND	ND
	5	11/16/16	ND	ND	**68.2**	ND	ND	**10.0**	**6.82**	**11.6**	ND	ND	ND	**6.64**	ND	ND	ND	**27.6**	**37.8**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**68.9**	ND	ND	**6.32**	**6.85**	**10.5**	ND	ND	ND	**4.52**	ND	ND	ND	**27.9**	**36.0**	ND	ND	ND	ND
B2	5	11/16/16	ND	ND	**81.5**	ND	ND	**11.0**	**7.49**	**12.6**	ND	ND	ND	**7.27**	ND	ND	ND	**29.6**	**40.1**	ND	ND	ND	ND
	10	11/16/16	ND	ND	**74.7**	ND	ND	**9.9**	**6.84**	**10.5**	ND	ND	ND	**6.63**	ND	ND	ND	**26.8**	**38.1**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**35.7**	ND	ND	**5.35**	**4.17**	**9.33**	ND	ND	ND	**3.04**	ND	ND	ND	**17.4**	**25.7**	ND	ND	ND	ND
B3	1	11/16/16	ND	ND	**77.8**	ND	ND	**9.87**	**6.81**	**12.2**	**5.03**	ND	ND	**5.9**	ND	ND	ND	**28.5**	**39.4**	ND	ND	ND	ND
	5	11/16/16	ND	ND	**69**	ND	ND	**8.96**	**6.22**	**10.2**	**22.7**	ND	ND	**5.78**	ND	ND	ND	**25.1**	**33.7**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**59.5**	ND	ND	**7.75**	**6.57**	**8.45**	ND	ND	ND	**5.97**	ND	ND	ND	**23.5**	**31.1**	ND	ND	ND	ND
B4	5	11/16/16	ND	ND	**89.4**	ND	ND	**12.2**	**7.99**	**12.4**	ND	ND	ND	**7.92**	ND	ND	ND	**31.2**	**42.5**	ND	ND	ND	ND
	15	11/16/16	ND	ND	**37.8**	ND	ND	**4.14**	**3**	**6.02**	ND	ND	ND	**2.51**	ND	ND	ND	**12.9**	**17.1**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**139**	ND	ND	**4.73**	**7.38**	**11.2**	ND	ND	ND	**4.03**	ND	ND	ND	**27.0**	**37.9**	ND	ND	ND	ND
B5	5	11/16/16	ND	ND	**69.6**	ND	ND	**10.4**	**7.19**	**10.1**	ND	ND	ND	**6.71**	ND	ND	ND	**29.8**	**40.8**	ND	ND	ND	ND
	15	11/16/16	ND	ND	**46.1**	ND	ND	**4.56**	**3.98**	**5.24**	ND	ND	ND	**3.06**	ND	ND	ND	**14.9**	**21.4**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**56.9**	ND	ND	**6.75**	**4.73**	**5.99**	ND	ND	ND	**4.11**	ND	ND	ND	**18.6**	**21.6**	ND	ND	ND	ND
B6	5	11/16/16	ND	ND	**89.8**	ND	ND	**11.5**	**7.98**	**12.5**	ND	ND	ND	**7.52**	ND	ND	ND	**30.0**	**43.4**	ND	ND	ND	ND
	10	11/16/16	ND	ND	**106**	ND	ND	**14.7**	**9.74**	**20.0**	ND	ND	ND	**9.83**	ND	ND	ND	**37.1**	**55.9**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**74.2**	ND	ND	**7.92**	**5.35**	**8.37**	ND	ND	ND	**5.49**	ND	ND	ND	**22.0**	**32.9**	ND	ND	ND	ND
B7	5	11/16/16	ND	ND	**73.7**	ND	ND	**9.25**	**6.79**	**9.55**	ND	ND	ND	**6.05**	ND	ND	ND	**26.2**	**37.9**	ND	ND	ND	ND
	10	11/16/16	ND	ND	**95.8**	ND	ND	**13.5**	**8.64**	**15.4**	ND	ND	ND	**9.04**	ND	ND	ND	**34.8**	**47.3**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**76.9**	ND	ND	**8.79**	**5.64**	**9.09**	ND	ND	ND	**5.67**	ND	ND	ND	**24.4**	**30.8**	ND	ND	ND	ND
B8	5	11/16/16	ND	ND	**59.8**	ND	ND	**6.91**	**5.23**	**6.94**	ND	ND	ND	**4.48**	ND	ND	ND	**20.8**	**27.2**	ND	ND	ND	ND
	15	11/16/16	ND	ND	**54.7**	ND	ND	**6.68**	**4.86**	**6.74**	ND	ND	ND	**4.09**	ND	ND	ND	**21.9**	**24.9**	ND	ND	ND	ND
	20	11/16/16	ND	ND	**144**	ND	ND	**7.43**	**9.75**	**19.3**	ND	ND	ND	**5.37**	ND	ND	ND	**31.7**	**51.3**	ND	ND	ND	ND
Maximum Concentration			-	**2.73**	**139**	-	-	**15.6**	**9.74**	**20.0**	**22.7**	-	-	**12.5**	-	-	-	**37.1**	**55.9**	-	-	-	-
CHHSL	residential		**30**	**0.07**	**5,200**	**150**	**1.7**	**100,000**	**660**	**3,000**	**80**	**18**	**380**	**1,600**	**380**	**380**	**5**	**530**	**23,000**	-	-	-	-
	commercial/industrial		**380**	**0.24**	**63,000**	**1700**	**7.5**	**100,000**	**3,200**	**38,000**	**320**	**180**	**4,800**	**16,000**	**4,800**	**4,800**	**63**	**670**	**100,000**	-	-	-	-
RSL	residential		**31**	**0.39**	**15,000**	**160**	**70**	**--**	**23**	**3,100**	**400**	**5.6**	**390**	**1,500**	**390**	**390**	**--**	**390**	**23,000**	-	-	-	-
	commercial/industrial		**410**	**1.6**	**190,000**	**2000**	**810**	**--**	**300**	**41,000**	**800**	**34**	**5,100**	**20,000**	**5,100**	**5,100**	**--**	**5200**	**310,000**	-	-	-	-

mg/kg milligrams per kilogram
ug/m^3 micrograms per cubic meter
bgs below ground surface

ND Not detected above the method detection limit (MDL)
CHHSL California Human Health Screening level
RSL EPA Regional Screening Level

CONVERSE Project No. 10-42-176-04
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Table 2
Soil Vapor Sample Analytical Results
Parking Lots 2 and 3
Los Angeles Memorial Coliseum
Los Angeles, California

Sample ID	SV1-5	SV2-5	SV3-5	SV4-5	SV5-5	SV6-5	SV8-5	Maximum Concentration ug/m^3	Indoor Air RSLs ug/m^3		Attenuation Factor (soil vapor, existing construction)	Calculated Soil Vapor Screening Level ug/m^3	
Sample Date	11/16/16	11/16/16	11/16/16	11/16/16	11/16/16	11/16/16	11/16/16		Residential	Commercial / Industrial		Residential	Commercial / Industrial
Acetone	**99.2**	**90.2**	**121**	**38.8**	**40.5**	**74.4**	**35.6**	**121**	32,000	140,000	1,000	**32,000,000**	**140,000,000**
Benzene	**28.6**	**5.33**	**6.09**	**4.67**	**2.85**	**20.1**	**5.95**	**28.6**	0.097	0.420	1,000	**97.0**	**420**
Carbon Disulfide	ND	**1.41**	ND	ND	ND	ND	ND	**1.41**	730	3,100	1,000	**730,000**	**3,100,000**
Chloromethane	ND	**1.36**	ND	ND	ND	ND	ND	**1.4**	94.0	390	1,000	**94,000**	**390,000**
Cyclohexane	**5.00**	**2.40**	**6.57**	**7.98**	**3.35**	**5.22**	**1.79**	**7.98**	6,300	26,000	1,000	**6,300,000**	**26,000,000**
Dichlorodifluromethane	**2.05**	ND	ND	**2.12**	ND	**2.01**	ND	**2.12**	100	440	1,000	**100,000**	**440,000**
1,4-Dioxane	ND	ND	ND	ND	**5.12**	ND	**2.79**	**5.12**	0.360	1.60	1,000	**360**	**1,600**
Ethanol	**55.7**	**27.7**	**34.3**	**19.8**	**29.1**	**54.5**	**25.4**	**55.7**	--	--	1,000	--	--
Ethylbenzene	**30.6**	**11.8**	**13.8**	**9.87**	**4.59**	**54.6**	**49.7**	**54.6**	1.10	4.90	1,000	**1,100**	**4,900.0**
4-Ethyltoluene	**27.4**	**16.1**	**11.5**	**7.91**	**2.45**	**15.8**	**4.91**	**27.4**	--	--	1,000	--	--
Heptane	**32.8**	**9.13**	**5.44**	**3.72**	**4.06**	**28.9**	**12.0**	**32.8**	--	--	1,000	--	--
n-Hexane	**15.0**	**4.29**	**3.40**	**1.82**	**2.16**	**26.5**	**7.00**	**26.5**	730	3,100	1,000	**730,000**	**3,100,000**
Isoproplybenzene (Cumene)	**2.15**	ND	**2.46**	**2.78**	ND	ND	ND	**2.78**	420	1,800	1,000	**420,000**	**1,800,000**
Methylene Chloride	**1.85**	ND	ND	ND	**1.54**	**1.44**	**2.20**	**2.20**	1.00	12.0	1,000	**1,000**	**12,000**
2-Butanone (MEK)	**16.5**	**20.8**	**23.4**	**11.5**	**12.5**	**15.4**	**8.32**	**23.4**	5,200	22,000	1,000	**5,200,000**	**22,000,000**
4-Methyl-2-Pentanone (MIBK)	ND	**12.0**	ND	ND	ND	ND	ND	**12.0**	3,100	13,000	1,000	**3,100,000**	**13,000,000**
2-Propanol	**18.7**	**9.25**	**6.53**	ND	**6.75**	**15.8**	ND	**18.7**	210	880	1,000	**210,000**	**880,000**
Propene	**5.02**	**8.45**	**7.19**	**3.01**	**5.58**	**5.63**	**5.45**	**8.45**	3,100	13,000	1,000	**3,100,000**	**13,000,000**
Styrene	**7.74**	ND	**5.35**	**7.29**	**6.22**	ND	ND	**7.74**	1,000	4,400	1,000	**1,000,000**	**4,400,000**
Tetrachloroethylene (PCE)	**4.69**	**45.3**	**8.69**	**6.21**	**4.59**	**5.61**	**2.90**	**45.3**	0.480	2.10	1,000	**480**	**2,100**
Tetrahydrofuran	**3.14**	**5.85**	**7.28**	**3.47**	**4.36**	ND	ND	**7.28**	2,100	8,800	1,000	**2,100,000**	**8,800,000**
Toluene	**196**	**50.6**	**60.2**	**38.7**	**20.2**	**133**	**39.6**	**196**	310	1,300	1,000	**310,000**	**1,300,000**
1,1,1-Trichloroethane	**6.66**	**2.27**	**2.21**	ND	ND	**11.5**	ND	**11.5**	5,200	22,000	1,000	**5,200,000**	**22,000,000**
Trichlorofluoromethane	**10.6**	**3.00**	ND	**2.36**	ND	**3.81**	ND	**10.6**	1,300	5,300	1,000	**1,300,000**	**5,300,000**
1,2,4-Trimethylbenzene	**25.8**	**22.2**	**24.4**	**8.15**	**3.14**	**21.7**	**5.27**	**25.8**	7.30	31.0	1,000	**7,300**	**31,000**
1,3,5-Trimethylbenzene	**7.11**	**7.19**	**7.87**	**2.74**	ND	**5.89**	ND	**7.87**	42.0	180	1,000	**42,000**	**180,000**
2,2,4-Trimethylpentane	**10.7**	**3.91**	**1.95**	**2.17**	**2.00**	**15.3**	**4.79**	**15.3**	42.0	180	1,000	**42,000**	**180,000**
m,p-Xylenes	**118**	**52.9**	**60.1**	**38.1**	**14.7**	**233**	**232**	**233**	100	440	1,000	**100,000**	**440,000**
o-Xylene	**34.1**	**14.1**	**16.3**	**10.2**	**3.96**	**77.2**	**90.5**	**90.5**	100	440	1,000	**100,000**	**440,000**
All Other VOCs	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-

ug/m^3 micrograms per cubic meter
ND Not detected
RSL EPA Regional Screeing Level
Gray Highling indicates RSL replaced by value from DTSC Human Health Risk Assessment (HHRA) Note 3, Table 3

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Analytical Report – Soil Samples

Appendix A

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Laura Tanaka

Number of Pages	**57**
Date Received	**11/16/2016**
Date Reported	**11/29/2016**

Job Number	Order Date	Client
85324	11/16/2016	CONVRS

Project ID: 10-42-176-04
Project Name: LOTS 2+3
Site: LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Enclosed please find results of analyses of 24 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

№ 94818

COMPANY: Converse Consultants
PROJECT MANAGER: Laura Tanaka
COMPANY ADDRESS: 717 S. Myrtle Avenue
PHONE: 626 930-1200
FAX:
PROJECT NAME: Lots 2 + 3
PROJECT #: 10-42-176-04
SITE NAME AND ADDRESS: LA Memorial Colisseum Lots 2+3, Los Angeles, CA
PO #:
AETL JOB No. 85324
Page 1 of 3

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	ANALYSIS REQUESTED: 8260B	8015M	6010 (Title 22)	TEST INSTRUCTIONS & COMMENTS
1	B1-1	85324.01	11/16/16	7:45	SOIL	3encore 1sleeve	ICE	X	X	X	*
2	B1-5	85324.02		7:50				X	X	X	
3	-10	85324.03		7:55							Hold
4	-15	85324.04		8:00							Hold
5	-20	85324.05		8:05				X	X	X	
6	B2-1	85324.06		8:20							Hold
7	-5	85324.07		8:25				X	X	X	
8	-10	85324.08		8:30				X	X	X	
9	-15	85324.09		8:35							Hold
10	-20	85324.10		8:40				X	X	X	
11	B3-1	85324.11		8:50				X	X	X	
12	-5	85324.12		8:55				X	X	X	
13	-10	85324.13		9:00							Hold
14	-15	85324.14		9:05				X	X	X	Hold
15	-20	85324.15		9:16				X	X	X	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS: 30
CUSTODY SEALS Y / N / NA
RECEIVED IN GOOD COND. Y / N
PROPERLY COOLED Y / N / NA
SAMPLES INTACT Y / N / NA
SAMPLES ACCEPTED Y / N

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY ☐ PDF ☐ GEOTRACKER (GLOBAL ID) _____ ☐ OTHER (PLEASE SPECIFY) _____

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature			
Printed Name	Spencer Wagner		C. Ramirez
Date / Time	11/16/16 13:30	/	11/16/16 1700
	RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: AETL 3.**
Signature			
Printed Name	C. Ramirez		Antin
Date / Time	11/16/16 1330	/	11/16/16 1700

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

CHAIN OF CUSTODY RECORD

Nº 94795

AETL JOB No. 85324

COMPANY: Converse Consultants
PROJECT MANAGER: Laura Tanaka
COMPANY ADDRESS: 717 S. Myrtle Ave
PHONE / FAX: 626 930-1200
PROJECT NAME: Lots 2+3
PROJECT #: 10-42-176-04
SITE NAME AND ADDRESS: Los Angeles Memorial Coliseum Lots 2+3, Los Angeles, CA
PO #:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	8260B	8015M	6010 (Title 22)	TEST INSTRUCTIONS & COMMENTS
1	B4-1	85324-16	11/16/16	9:30	Soil	3 encores 1 sleeve	ICE				Hold
2	-5	85324.17		9:35				X	X	X	
3	-10	85324.18		9:40							Hold
4	-15	85324.19		9:45				X	X	X	
5	-20	85324.20		9:50				X	X	X	
6	B5-1	85324.21		10:20				~~X~~	~~X~~	~~X~~	Hold
7	-5	85324.22		10:25				X	X	X	Hold
8	-10	85324.23		10:30							Hold
9	-15	85324.24		10:35				X	X	X	
10	-20	85324.25		10:40				X	X	X	
11	B6-1	85324.26		10:50							Hold
12	-5	85324.27		10:55				X	X	X	
13	-10	85324.28		11:00				X	X	X	
14	-15	85324.29		11:05							Hold
15	-20	85324.30		11:10				X	X	X	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	30	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY ☐ PDF ☐ GEOTRACKER (GLOBAL ID) _____ ☐ OTHER (PLEASE SPECIFY) _____

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:			
Printed Name:	Spencer Wagner		
Date / Time:	11/16/16 13:30		11/16/16 1700
	RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: AETL 3.**
Signature:			
Printed Name:			
Date / Time:	11/16/16 1330		11/16/16 1700

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

№ 94819

AETL JOB No. 85324

COMPANY: Converse Consultants
PROJECT MANAGER: Laura Tanaka
COMPANY ADDRESS: 717 S. Myrtle Ave
PHONE: 626 930-1200
FAX:
PROJECT NAME: Lots 2+3
PROJECT #: 10-42-176-04
SITE NAME AND ADDRESS: Los Angeles Memorial Coliseum Lots 2+3 PO #
Los Angeles, CA

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	8260 B	8015 M	6010 (Title 22)	TEST INSTRUCTIONS & COMMENTS
1	B7-1	85324.31	11/16/16	11:35	SOIL	3 encore 1 sleeve	ICE				Hold
2	-5	85324.32		11:40				X	X	X	
3	-10	85324.33		11:45				X	X	X	
4	-15	85324.34		11:50							Hold
5	-20	85324.35		11:55				X	X	X	
6	B8-1	85324.36		12:00							Hold
7	-5	85324.37		12:05				X	X	X	
8	-10	85324.38		12:10							Hold
9	-15	85324.39		12:15				X	X	X	
10	-20	85324.40		12:20				X	X	X	
11											
12											
13											
14											
15											

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS: 20
CUSTODY SEALS Y / N / NA: NA
RECEIVED IN GOOD COND Y / N: Y
PROPERLY COOLED Y / N / NA: Y
SAMPLES INTACT Y / N / NA: Y
SAMPLES ACCEPTED Y / N: Y

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY ☐ PDF ☐ GEOTRACKER (GLOBAL ID) _____ ☐ OTHER (PLEASE SPECIFY) _____

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature			
Printed Name	Spencer Wagner		C. Parmelee
Date / Time	11/16/16 13:30		11/16/16 1700
	RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: AETL 3.**
Signature			
Printed Name	C. Parmelee		Antin
Date / Time	11/16/16 1330		11/16/16 1700

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Laura Tanaka

Project ID: 10-42-176-04
Date Received 11/16/2016
Date Reported 11/29/2016

Job Number	Order Date	Client
85324	11/16/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 40 samples with the following specification on 11/16/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85324.01	B1-1	11/16/2016	Soil	2
85324.02	B1-5	11/16/2016	Soil	2
85324.05	B1-20	11/16/2016	Soil	2
85324.07	B2-5	11/16/2016	Soil	2
85324.08	B2-10	11/16/2016	Soil	2
85324.10	B2-20	11/16/2016	Soil	2
85324.11	B3-1	11/16/2016	Soil	2
85324.12	B3-5	11/16/2016	Soil	2
85324.15	B3-20	11/16/2016	Soil	2
85324.17	B4-5	11/16/2016	Soil	2
85324.19	B4-15	11/16/2016	Soil	2
85324.20	B4-20	11/16/2016	Soil	2
85324.22	B5-5	11/16/2016	Soil	2
85324.24	B5-15	11/16/2016	Soil	2
85324.25	B5-20	11/16/2016	Soil	2
85324.27	B6-5	11/16/2016	Soil	2
85324.28	B6-10	11/16/2016	Soil	2
85324.30	B6-20	11/16/2016	Soil	2
85324.32	B7-5	11/16/2016	Soil	2
85324.33	B7-10	11/16/2016	Soil	2
85324.35	B7-20	11/16/2016	Soil	2
85324.37	B8-5	11/16/2016	Soil	2
85324.39	B8-15	11/16/2016	Soil	2
85324.40	B8-20	11/16/2016	Soil	2

Method ^ Submethod	*Req Date*	*Priority*	*TAT*	*Units*
(6010B/7000CAM)	11/23/2016	2	Normal	mg/Kg

Continued

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Project ID: 10-42-176-04
Date Received 11/16/2016
Date Reported 11/29/2016

Job Number	Order Date	Client
85324	11/16/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85324.40	B8-20	11/16/2016	Soil			2

Method ^ Submethod	Req Date	Priority	TAT	Units
(8260B)	11/23/2016	2	Normal	ug/Kg
(M8015D) ^ C13-C40	11/23/2016	2	Normal	mg/Kg
(M8015G)	11/23/2016	2	Normal	mg/Kg

85324.03	B1-10	11/16/2016	Soil			2
85324.04	B1-15	11/16/2016	Soil			2
85324.06	B2-1	11/16/2016	Soil			2
85324.09	B2-15	11/16/2016	Soil			2
85324.13	B3-10	11/16/2016	Soil			2
85324.14	B3-15	11/16/2016	Soil			2
85324.16	B4-1	11/16/2016	Soil			2
85324.18	B4-10	11/16/2016	Soil			2
85324.21	B5-1	11/16/2016	Soil			2
85324.23	B5-10	11/16/2016	Soil			2
85324.26	B6-1	11/16/2016	Soil			2
85324.29	B6-15	11/16/2016	Soil			2
85324.31	B7-1	11/16/2016	Soil			2
85324.34	B7-15	11/16/2016	Soil			2
85324.36	B8-1	11/16/2016	Soil			2
85324.38	B8-10	11/16/2016	Soil			2

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	11/23/2016	2	Normal	--

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Laura Tanaka

Site

LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Page: **2**

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/20/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/20/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/20/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		89.2	107	101	97.1	83.3
Dibromofluoromethane	75-125		120	114	115	116	116
Toluene-d8	75-125		104	105	104	104	104

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ANALYTICAL RESULTS

Ordered By

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Telephone: (626)930-1200
Attn: Laura Tanaka

Site

LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Page: **5**

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/20/2016	11/20/2016	11/20/2016	11/20/2016	11/20/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		102	99.6	105	103	101
Dibromofluoromethane	75-125		117	115	117	117	116
Toluene-d8	75-125		104	106	105	105	104

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			**85324.17**				
Client Sample I.D.			B4-5				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Acetone	25	50	ND				
Benzene	1.0	10.0	ND				
Bromobenzene (Phenyl bromide)	5.0	10.0	ND				
Bromochloromethane	5.0	10.0	ND				
Bromodichloromethane	5.0	10.0	ND				
Bromoform (Tribromomethane)	25	50	ND				
Bromomethane (Methyl bromide)	15	30	ND				
2-Butanone (MEK)	25	50	ND				
n-Butylbenzene	5.0	10.0	ND				
sec-Butylbenzene	5.0	10.0	ND				
tert-Butylbenzene	5.0	10.0	ND				
Carbon Disulfide	25	50	ND				
Carbon tetrachloride	5.0	10.0	ND				
Chlorobenzene	5.0	10.0	ND				
Chloroethane	15	30	ND				
2-Chloroethyl vinyl ether	50	50	ND				
Chloroform (Trichloromethane)	5.0	10.0	ND				
Chloromethane (Methyl chloride)	15	30	ND				
2-Chlorotoluene	5.0	10.0	ND				
4-Chlorotoluene	5.0	10.0	ND				
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND				
Dibromochloromethane	5.0	10.0	ND				
1,2-Dibromoethane (EDB)	5.0	10.0	ND				
Dibromomethane	5.0	10.0	ND				
1,2-Dichlorobenzene	5.0	10.0	ND				
1,3-Dichlorobenzene	5.0	10.0	ND				
1,4-Dichlorobenzene	5.0	10.0	ND				
Dichlorodifluoromethane	15	30	ND				

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			85324.17				
Client Sample I.D.			B4-5				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,1-Dichloroethane	5.0	10.0	ND				
1,2-Dichloroethane (EDC)	5.0	10.0	ND				
1,1-Dichloroethene	5.0	10.0	ND				
cis-1,2-Dichloroethene	5.0	10.0	ND				
trans-1,2-Dichloroethene	5.0	10.0	ND				
1,2-Dichloropropane	5.0	10.0	ND				
1,3-Dichloropropane	5.0	10.0	ND				
2,2-Dichloropropane	5.0	10.0	ND				
1,1-Dichloropropene	5.0	10.0	ND				
cis-1,3-Dichloropropene	5.0	10.0	ND				
trans-1,3-Dichloropropene	5.0	10.0	ND				
Ethylbenzene	1.0	10.0	ND				
Hexachlorobutadiene	15	30	ND				
2-Hexanone	25	50	ND				
Iodomethane	5.0	10.0	ND				
Isopropylbenzene	5.0	10.0	ND				
p-Isopropyltoluene	5.0	10.0	ND				
4-Methyl-2-pentanone (MIBK)	25	50	ND				
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND				
Methylene chloride (DCM)	25	50	ND				
Naphthalene	5.0	10.0	ND				
n-Propylbenzene	5.0	10.0	ND				
Styrene	5.0	10.0	ND				
1,1,1,2-Tetrachloroethane	5.0	10.0	ND				
1,1,2,2-Tetrachloroethane	5.0	10.0	ND				
Tetrachloroethene	2.0	10.0	ND				
Toluene (Methyl benzene)	1.0	10.0	ND				
1,2,3-Trichlorobenzene	5.0	10.0	ND				
1,2,4-Trichlorobenzene	5.0	10.0	ND				
1,1,1-Trichloroethane	5.0	10.0	ND				
1,1,2-Trichloroethane	5.0	10.0	ND				
Trichloroethene	1.5	10.0	ND				
Trichlorofluoromethane	5.0	10.0	ND				
1,2,3-Trichloropropane	5.0	10.0	ND				

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1

Our Lab I.D.			**85324.17**				
Client Sample I.D.			B4-5				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2,4-Trimethylbenzene	5.0	10.0	ND				
1,3,5-Trimethylbenzene	5.0	10.0	ND				
Vinyl Acetate	25	50	ND				
Vinyl chloride (Chloroethene)	5.0	10.0	ND				
o-Xylene	1.0	10.0	ND				
m,p-Xylenes	1.0	20.0	ND				
Our Lab I.D.			**85324.17**				
Surrogates	**%Rec.Limit**		**% Rec.**				
Bromofluorobenzene	75-125		83.9				
Dibromofluoromethane	75-125		116				
Toluene-d8	75-125		102				

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			Method Blank	85324.19	85324.20	85324.22	85324.24
Client Sample I.D.				B4-15	B4-20	B5-5	B5-15
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/19/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			Method Blank	85324.19	85324.20	85324.22	85324.24
Client Sample I.D.				B4-15	B4-20	B5-5	B5-15
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/19/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			Method Blank	**85324.19**	**85324.20**	**85324.22**	**85324.24**
Client Sample I.D.				B4-15	B4-20	B5-5	B5-15
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/19/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**85324.19**	**85324.20**	**85324.22**	**85324.24**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		109	108	108	107	108
Dibromofluoromethane	75-125		98.6	97.3	94.0	98.5	98.2
Toluene-d8	75-125		99.0	98.3	99.7	98.3	99.4

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			85324.25	85324.27	85324.28	85324.30	85324.32
Client Sample I.D.			B5-20	B6-5	B6-10	B6-20	B7-5
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			85324.25	85324.27	85324.28	85324.30	85324.32
Client Sample I.D.			B5-20	B6-5	B6-10	B6-20	B7-5
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			85324.25	85324.27	85324.28	85324.30	85324.32
Client Sample I.D.			B5-20	B6-5	B6-10	B6-20	B7-5
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			85324.25	85324.27	85324.28	85324.30	85324.32
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		107	106	108	108	105
Dibromofluoromethane	75-125		97.9	98.9	97.9	99.0	98.3
Toluene-d8	75-125		99.2	97.3	98.8	99.7	99.1

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Site

LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			Method Blank	**85324.33**			
Client Sample I.D.				B7-10			
Date Sampled				11/16/2016			
Date Prepared			11/16/2016	11/16/2016			
Preparation Method			5030	5035A			
Date Analyzed			11/18/2016	11/18/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acetone	25	50	ND	ND			
Benzene	1.0	10.0	ND	ND			
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND			
Bromochloromethane	5.0	10.0	ND	ND			
Bromodichloromethane	5.0	10.0	ND	ND			
Bromoform (Tribromomethane)	25	50	ND	ND			
Bromomethane (Methyl bromide)	15	30	ND	ND			
2-Butanone (MEK)	25	50	ND	ND			
n-Butylbenzene	5.0	10.0	ND	ND			
sec-Butylbenzene	5.0	10.0	ND	ND			
tert-Butylbenzene	5.0	10.0	ND	ND			
Carbon Disulfide	25	50	ND	ND			
Carbon tetrachloride	5.0	10.0	ND	ND			
Chlorobenzene	5.0	10.0	ND	ND			
Chloroethane	15	30	ND	ND			
2-Chloroethyl vinyl ether	50	50	ND	ND			
Chloroform (Trichloromethane)	5.0	10.0	ND	ND			
Chloromethane (Methyl chloride)	15	30	ND	ND			
2-Chlorotoluene	5.0	10.0	ND	ND			
4-Chlorotoluene	5.0	10.0	ND	ND			
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND			
Dibromochloromethane	5.0	10.0	ND	ND			
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND			
Dibromomethane	5.0	10.0	ND	ND			
1,2-Dichlorobenzene	5.0	10.0	ND	ND			
1,3-Dichlorobenzene	5.0	10.0	ND	ND			
1,4-Dichlorobenzene	5.0	10.0	ND	ND			
Dichlorodifluoromethane	15	30	ND	ND			

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			Method Blank	85324.33			
Client Sample I.D.				B7-10			
Date Sampled				11/16/2016			
Date Prepared			11/16/2016	11/16/2016			
Preparation Method			5030	5035A			
Date Analyzed			11/18/2016	11/18/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,1-Dichloroethane	5.0	10.0	ND	ND			
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND			
1,1-Dichloroethene	5.0	10.0	ND	ND			
cis-1,2-Dichloroethene	5.0	10.0	ND	ND			
trans-1,2-Dichloroethene	5.0	10.0	ND	ND			
1,2-Dichloropropane	5.0	10.0	ND	ND			
1,3-Dichloropropane	5.0	10.0	ND	ND			
2,2-Dichloropropane	5.0	10.0	ND	ND			
1,1-Dichloropropene	5.0	10.0	ND	ND			
cis-1,3-Dichloropropene	5.0	10.0	ND	ND			
trans-1,3-Dichloropropene	5.0	10.0	ND	ND			
Ethylbenzene	1.0	10.0	ND	ND			
Hexachlorobutadiene	15	30	ND	ND			
2-Hexanone	25	50	ND	ND			
Iodomethane	5.0	10.0	ND	ND			
Isopropylbenzene	5.0	10.0	ND	ND			
p-Isopropyltoluene	5.0	10.0	ND	ND			
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND			
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND			
Methylene chloride (DCM)	25	50	ND	ND			
Naphthalene	5.0	10.0	ND	ND			
n-Propylbenzene	5.0	10.0	ND	ND			
Styrene	5.0	10.0	ND	ND			
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND			
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND			
Tetrachloroethene	2.0	10.0	ND	ND			
Toluene (Methyl benzene)	1.0	10.0	ND	ND			
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND			
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND			
1,1,1-Trichloroethane	5.0	10.0	ND	ND			
1,1,2-Trichloroethane	5.0	10.0	ND	ND			
Trichloroethene	1.5	10.0	ND	ND			
Trichlorofluoromethane	5.0	10.0	ND	ND			
1,2,3-Trichloropropane	5.0	10.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			Method Blank	**85324.33**			
Client Sample I.D.				B7-10			
Date Sampled				11/16/2016			
Date Prepared			11/16/2016	11/16/2016			
Preparation Method			5030	5035A			
Date Analyzed			11/18/2016	11/18/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND			
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND			
Vinyl Acetate	25	50	ND	ND			
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND			
o-Xylene	1.0	10.0	ND	ND			
m,p-Xylenes	1.0	20.0	ND	ND			
Our Lab I.D.			Method Blank	**85324.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		99.3	98.7			
Dibromofluoromethane	75-125		116	113			
Toluene-d8	75-125		103	103			

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ANALYTICAL RESULTS

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Page: **20**

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			85324.35				
Client Sample I.D.			B7-20				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Acetone	25	50	ND				
Benzene	1.0	10.0	ND				
Bromobenzene (Phenyl bromide)	5.0	10.0	ND				
Bromochloromethane	5.0	10.0	ND				
Bromodichloromethane	5.0	10.0	ND				
Bromoform (Tribromomethane)	25	50	ND				
Bromomethane (Methyl bromide)	15	30	ND				
2-Butanone (MEK)	25	50	ND				
n-Butylbenzene	5.0	10.0	ND				
sec-Butylbenzene	5.0	10.0	ND				
tert-Butylbenzene	5.0	10.0	ND				
Carbon Disulfide	25	50	ND				
Carbon tetrachloride	5.0	10.0	ND				
Chlorobenzene	5.0	10.0	ND				
Chloroethane	15	30	ND				
2-Chloroethyl vinyl ether	50	50	ND				
Chloroform (Trichloromethane)	5.0	10.0	ND				
Chloromethane (Methyl chloride)	15	30	ND				
2-Chlorotoluene	5.0	10.0	ND				
4-Chlorotoluene	5.0	10.0	ND				
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND				
Dibromochloromethane	5.0	10.0	ND				
1,2-Dibromoethane (EDB)	5.0	10.0	ND				
Dibromomethane	5.0	10.0	ND				
1,2-Dichlorobenzene	5.0	10.0	ND				
1,3-Dichlorobenzene	5.0	10.0	ND				
1,4-Dichlorobenzene	5.0	10.0	ND				
Dichlorodifluoromethane	15	30	ND				

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			85324.35				
Client Sample I.D.			B7-20				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,1-Dichloroethane	5.0	10.0	ND				
1,2-Dichloroethane (EDC)	5.0	10.0	ND				
1,1-Dichloroethene	5.0	10.0	ND				
cis-1,2-Dichloroethene	5.0	10.0	ND				
trans-1,2-Dichloroethene	5.0	10.0	ND				
1,2-Dichloropropane	5.0	10.0	ND				
1,3-Dichloropropane	5.0	10.0	ND				
2,2-Dichloropropane	5.0	10.0	ND				
1,1-Dichloropropene	5.0	10.0	ND				
cis-1,3-Dichloropropene	5.0	10.0	ND				
trans-1,3-Dichloropropene	5.0	10.0	ND				
Ethylbenzene	1.0	10.0	ND				
Hexachlorobutadiene	15	30	ND				
2-Hexanone	25	50	ND				
Iodomethane	5.0	10.0	ND				
Isopropylbenzene	5.0	10.0	ND				
p-Isopropyltoluene	5.0	10.0	ND				
4-Methyl-2-pentanone (MIBK)	25	50	ND				
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND				
Methylene chloride (DCM)	25	50	ND				
Naphthalene	5.0	10.0	ND				
n-Propylbenzene	5.0	10.0	ND				
Styrene	5.0	10.0	ND				
1,1,1,2-Tetrachloroethane	5.0	10.0	ND				
1,1,2,2-Tetrachloroethane	5.0	10.0	ND				
Tetrachloroethene	2.0	10.0	ND				
Toluene (Methyl benzene)	1.0	10.0	ND				
1,2,3-Trichlorobenzene	5.0	10.0	ND				
1,2,4-Trichlorobenzene	5.0	10.0	ND				
1,1,1-Trichloroethane	5.0	10.0	ND				
1,1,2-Trichloroethane	5.0	10.0	ND				
Trichloroethene	1.5	10.0	ND				
Trichlorofluoromethane	5.0	10.0	ND				
1,2,3-Trichloropropane	5.0	10.0	ND				

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2

Our Lab I.D.			**85324.35**				
Client Sample I.D.			B7-20				
Date Sampled			11/16/2016				
Date Prepared			11/16/2016				
Preparation Method			5035A				
Date Analyzed			11/20/2016				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2,4-Trimethylbenzene	5.0	10.0	ND				
1,3,5-Trimethylbenzene	5.0	10.0	ND				
Vinyl Acetate	25	50	ND				
Vinyl chloride (Chloroethene)	5.0	10.0	ND				
o-Xylene	1.0	10.0	ND				
m,p-Xylenes	1.0	20.0	ND				
Our Lab I.D.			**85324.35**				
Surrogates	**%Rec.Limit**		**% Rec.**				
Bromofluorobenzene	75-125		106				
Dibromofluoromethane	75-125		96.1				
Toluene-d8	75-125		98.1				

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			85324.37	85324.39	85324.40		
Client Sample I.D.			B8-5	B8-15	B8-20		
Date Sampled			11/16/2016	11/16/2016	11/16/2016		
Date Prepared			11/16/2016	11/16/2016	11/16/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			11/18/2016	11/19/2016	11/19/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acetone	25	50	ND	ND	ND		
Benzene	1.0	10.0	ND	ND	ND		
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND		
Bromochloromethane	5.0	10.0	ND	ND	ND		
Bromodichloromethane	5.0	10.0	ND	ND	ND		
Bromoform (Tribromomethane)	25	50	ND	ND	ND		
Bromomethane (Methyl bromide)	15	30	ND	ND	ND		
2-Butanone (MEK)	25	50	ND	ND	ND		
n-Butylbenzene	5.0	10.0	ND	ND	ND		
sec-Butylbenzene	5.0	10.0	ND	ND	ND		
tert-Butylbenzene	5.0	10.0	ND	ND	ND		
Carbon Disulfide	25	50	ND	ND	ND		
Carbon tetrachloride	5.0	10.0	ND	ND	ND		
Chlorobenzene	5.0	10.0	ND	ND	ND		
Chloroethane	15	30	ND	ND	ND		
2-Chloroethyl vinyl ether	50	50	ND	ND	ND		
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND		
Chloromethane (Methyl chloride)	15	30	ND	ND	ND		
2-Chlorotoluene	5.0	10.0	ND	ND	ND		
4-Chlorotoluene	5.0	10.0	ND	ND	ND		
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND		
Dibromochloromethane	5.0	10.0	ND	ND	ND		
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND		
Dibromomethane	5.0	10.0	ND	ND	ND		
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND		
Dichlorodifluoromethane	15	30	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			85324.37	85324.39	85324.40		
Client Sample I.D.			B8-5	B8-15	B8-20		
Date Sampled			11/16/2016	11/16/2016	11/16/2016		
Date Prepared			11/16/2016	11/16/2016	11/16/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			11/18/2016	11/19/2016	11/19/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,1-Dichloroethane	5.0	10.0	ND	ND	ND		
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND		
1,1-Dichloroethene	5.0	10.0	ND	ND	ND		
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
1,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,3-Dichloropropane	5.0	10.0	ND	ND	ND		
2,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,1-Dichloropropene	5.0	10.0	ND	ND	ND		
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
Ethylbenzene	1.0	10.0	ND	ND	ND		
Hexachlorobutadiene	15	30	ND	ND	ND		
2-Hexanone	25	50	ND	ND	ND		
Iodomethane	5.0	10.0	ND	ND	ND		
Isopropylbenzene	5.0	10.0	ND	ND	ND		
p-Isopropyltoluene	5.0	10.0	ND	ND	ND		
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND		
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND		
Methylene chloride (DCM)	25	50	ND	ND	ND		
Naphthalene	5.0	10.0	ND	ND	ND		
n-Propylbenzene	5.0	10.0	ND	ND	ND		
Styrene	5.0	10.0	ND	ND	ND		
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
Tetrachloroethene	2.0	10.0	ND	ND	ND		
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND		
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND		
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND		
Trichloroethene	1.5	10.0	ND	ND	ND		
Trichlorofluoromethane	5.0	10.0	ND	ND	ND		
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1

Our Lab I.D.			**85324.37**	**85324.39**	**85324.40**		
Client Sample I.D.			B8-5	B8-15	B8-20		
Date Sampled			11/16/2016	11/16/2016	11/16/2016		
Date Prepared			11/16/2016	11/16/2016	11/16/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			11/18/2016	11/19/2016	11/19/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND		
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND		
Vinyl Acetate	25	50	ND	ND	ND		
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND		
o-Xylene	1.0	10.0	ND	ND	ND		
m,p-Xylenes	1.0	20.0	ND	ND	ND		
Our Lab I.D.			**85324.37**	**85324.39**	**85324.40**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
Bromofluorobenzene	75-125		84.3	102	83.9		
Dibromofluoromethane	75-125		113	116	113		
Toluene-d8	75-125		104	103	102		

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB1

Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/18/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/18/2016	11/18/2016	11/18/2016	11/18/2016	11/18/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		91.8	88.4	88.6	88.2	92.4

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB1

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/18/2016	11/18/2016	11/18/2016	11/18/2016	11/18/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			**85324.08**	**85324.10**	**85324.11**	**85324.12**	**85324.15**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		92.2	89.4	93.2	91.8	89.6

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB1

Our Lab I.D.			**85324.17**	**85324.19**	**85324.20**		
Client Sample I.D.			B4-5	B4-15	B4-20		
Date Sampled			11/16/2016	11/16/2016	11/16/2016		
Date Prepared			11/16/2016	11/16/2016	11/16/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			11/18/2016	11/19/2016	11/19/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND		
Our Lab I.D.			**85324.17**	**85324.19**	**85324.20**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
Bromofluorobenzene	75-125		92.6	89.6	88.6		

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB2

Our Lab I.D.			Method Blank	**85324.22**	**85324.24**	**85324.25**	**85324.27**
Client Sample I.D.				B5-5	B5-15	B5-20	B6-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**85324.22**	**85324.24**	**85324.25**	**85324.27**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		92.2	93.0	89.8	90.8	93.6

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Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB2

Our Lab I.D.			85324.28	85324.30	85324.32	85324.33	85324.35
Client Sample I.D.			B6-10	B6-20	B7-5	B7-10	B7-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			11/19/2016	11/19/2016	11/19/2016	11/19/2016	11/19/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			**85324.28**	**85324.30**	**85324.32**	**85324.33**	**85324.35**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		91.0	91.2	91.2	91.4	92.4

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB2

Our Lab I.D.			85324.37	85324.39	85324.40		
Client Sample I.D.			B8-5	B8-15	B8-20		
Date Sampled			11/16/2016	11/16/2016	11/16/2016		
Date Prepared			11/16/2016	11/16/2016	11/16/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			11/19/2016	11/19/2016	11/19/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND		
Our Lab I.D.			85324.37	85324.39	85324.40		
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.		
Bromofluorobenzene	75-125		91.2	92.4	93.6		

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Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB1

Our Lab I.D.			Method Blank	**85324.01**	**85324.02**	**85324.05**	**85324.07**
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**85324.01**	**85324.02**	**85324.05**	**85324.07**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		99.3	104	103	105	108

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB1

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Chlorobenzene	75-125		105	102	103	105	105

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB1

Our Lab I.D.			85324.17	85324.19	85324.20	85324.22	85324.24
Client Sample I.D.			B4-5	B4-15	B4-20	B5-5	B5-15
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			85324.17	85324.19	85324.20	85324.22	85324.24
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Chlorobenzene	75-125		105	107	105	101	105

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB1

Our Lab I.D.			**85324.25**				
Client Sample I.D.			B5-20				
Date Sampled			11/16/2016				
Date Prepared			11/21/2016				
Preparation Method			3550B				
Date Analyzed			11/21/2016				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
TPH as Diesel (C13-C22)	1.0	5.0	ND				
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND				
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND				
Our Lab I.D.			**85324.25**				
Surrogates	**%Rec.Limit**		**% Rec.**				
Chlorobenzene	75-125		103				

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB2

Our Lab I.D.			Method Blank	**85324.27**	**85324.28**	**85324.30**	**85324.32**
Client Sample I.D.				B6-5	B6-10	B6-20	B7-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**85324.27**	**85324.28**	**85324.30**	**85324.32**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		100	105	101	102	102

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB2

Our Lab I.D.			85324.33	85324.35	85324.37	85324.39	85324.40
Client Sample I.D.			B7-10	B7-20	B8-5	B8-15	B8-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			85324.33	85324.35	85324.37	85324.39	85324.40
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		99.5	101	101	101	102

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C6

Our Lab I.D.			Method Blank	85324.01	85324.02	85324.05	85324.07
Client Sample I.D.				B1-1	B1-5	B1-20	B2-5
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	2.73J	ND	ND	ND
Barium	2.5	5.0	ND	89.9	68.2	68.9	81.5
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	15.6	10.0	6.32	11.0
Cobalt	2.5	5.0	ND	7.48	6.82	6.85	7.49
Copper	2.5	5.0	ND	12.6	11.6	10.5	12.6
Lead	2.5	5.0	ND	5.18	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	12.5	6.64	4.52J	7.27
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	28.9	27.6	27.9	29.6
Zinc	2.5	5.0	ND	40.9	37.8	36.0	40.1

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C6

Our Lab I.D.			85324.08	85324.10	85324.11	85324.12	85324.15
Client Sample I.D.			B2-10	B2-20	B3-1	B3-5	B3-20
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	ND	ND	ND
Barium	2.5	5.0	74.7	35.7	77.8	69.0	59.5
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	9.90	5.35	9.87	8.96	7.75
Cobalt	2.5	5.0	6.84	4.17J	6.81	6.22	6.57
Copper	2.5	5.0	10.5	9.33	12.2	10.2	8.45
Lead	2.5	5.0	ND	ND	5.03	22.7	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	6.63	3.04J	5.90	5.78	5.97
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	26.8	17.4	28.5	25.1	23.5
Zinc	2.5	5.0	38.1	25.7	39.4	33.7	31.1

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LA Memorial Colisseum Lots 2+3
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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C6

Our Lab I.D.			**85324.17**				
Client Sample I.D.			B4-5				
Date Sampled			11/16/2016				
Date Prepared			11/21/2016				
Preparation Method			3050B				
Date Analyzed			11/22/2016				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Antimony	1.0	5.0	ND				
Arsenic	1.0	5.0	ND				
Barium	2.5	5.0	89.4				
Beryllium	1.3	2.5	ND				
Cadmium	1.3	2.5	ND				
Chromium	2.5	5.0	12.2				
Cobalt	2.5	5.0	7.99				
Copper	2.5	5.0	12.4				
Lead	2.5	5.0	ND				
Mercury (By EPA 7471)	0.1	0.2	ND				
Molybdenum	2.5	5.0	ND				
Nickel	2.5	5.0	7.92				
Selenium	1.0	5.0	ND				
Silver	2.5	5.0	ND				
Thallium	1.0	5.0	ND				
Vanadium	2.5	5.0	31.2				
Zinc	2.5	5.0	42.5				

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LA Memorial Colisseum Lots 2+3
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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C7

Our Lab I.D.			Method Blank	85324.19	85324.20	85324.22	85324.24
Client Sample I.D.				B4-15	B4-20	B5-5	B5-15
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	ND	ND	ND
Barium	2.5	5.0	ND	37.8	139	69.6	46.1
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	4.14J	4.73J	10.4	4.56J
Cobalt	2.5	5.0	ND	3.00J	7.38	7.19	3.98J
Copper	2.5	5.0	ND	6.02	11.2	10.1	5.24
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	2.51J	4.03J	6.71	3.06J
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	12.9	27.0	29.8	14.9
Zinc	2.5	5.0	ND	17.1	37.9	40.8	21.4

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C7

Our Lab I.D.			85324.25	85324.27	85324.28	85324.30	85324.32
Client Sample I.D.			B5-20	B6-5	B6-10	B6-20	B7-5
Date Sampled			11/16/2016	11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	ND	ND	ND
Barium	2.5	5.0	56.9	89.8	106	74.2	73.7
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	6.75	11.5	14.7	7.92	9.25
Cobalt	2.5	5.0	4.73J	7.98	9.74	5.35	6.79
Copper	2.5	5.0	5.99	12.5	20.0	8.37	9.55
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	4.11J	7.52	9.83	5.49	6.05
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	18.6	30.0	37.1	22.0	26.2
Zinc	2.5	5.0	21.6	43.4	55.9	32.9	37.9

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C7

Our Lab I.D.			**85324.33**				
Client Sample I.D.			B7-10				
Date Sampled			11/16/2016				
Date Prepared			11/21/2016				
Preparation Method			3050B				
Date Analyzed			11/22/2016				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Antimony	1.0	5.0	ND				
Arsenic	1.0	5.0	ND				
Barium	2.5	5.0	95.8				
Beryllium	1.3	2.5	ND				
Cadmium	1.3	2.5	ND				
Chromium	2.5	5.0	13.5				
Cobalt	2.5	5.0	8.64				
Copper	2.5	5.0	15.4				
Lead	2.5	5.0	ND				
Mercury (By EPA 7471)	0.1	0.2	ND				
Molybdenum	2.5	5.0	ND				
Nickel	2.5	5.0	9.04				
Selenium	1.0	5.0	ND				
Silver	2.5	5.0	ND				
Thallium	1.0	5.0	ND				
Vanadium	2.5	5.0	34.8				
Zinc	2.5	5.0	47.3				

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C8

Our Lab I.D.			Method Blank	85324.35	85324.37	85324.39	85324.40
Client Sample I.D.				B7-20	B8-5	B8-15	B8-20
Date Sampled				11/16/2016	11/16/2016	11/16/2016	11/16/2016
Date Prepared			11/21/2016	11/21/2016	11/21/2016	11/21/2016	11/21/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			11/22/2016	11/22/2016	11/22/2016	11/22/2016	11/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	ND	ND	ND
Barium	2.5	5.0	ND	76.9	59.8	54.7	144
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	8.79	6.91	6.68	7.43
Cobalt	2.5	5.0	ND	5.64	5.23	4.86J	9.75
Copper	2.5	5.0	ND	9.09	6.94	6.74	19.3
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	5.67	4.48J	4.09J	5.37
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	24.4	20.8	21.9	31.7
Zinc	2.5	5.0	ND	30.8	27.2	24.9	51.3

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C6; Dup or Spiked Sample: 85324.01; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	47.2	94.4	50.0	46.9	93.8	<1	75-125	<15
Arsenic	2.73	50.0	50.5	95.5	50.0	50.5	95.5	<1	75-125	<15
Barium	89.9	50.0	131	82.2	50.0	131	82.2	<1	75-125	<15
Beryllium	0.00	50.0	54.5	109	50.0	53.5	107	1.85	75-125	<15
Cadmium	0.00	50.0	45.5	91.0	50.0	45.4	90.8	<1	75-125	<15
Chromium	15.6	50.0	64.2	97.2	50.0	63.9	96.6	<1	75-125	<15
Cobalt	7.48	50.0	53.4	91.8	50.0	53.3	91.6	<1	75-125	<15
Copper	12.6	50.0	62.3	99.4	50.0	62.4	99.6	<1	75-125	<15
Lead	5.18	50.0	45.6	80.8	50.0	45.3	80.2	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.540	108	0.500	0.535	107	<1	75-125	<15
Molybdenum	0.00	50.0	46.4	92.8	50.0	46.2	92.4	<1	75-125	<15
Nickel	12.5	50.0	54.2	83.4	50.0	54.3	83.6	<1	75-125	<15
Selenium	0.00	50.0	41.0	82.0	50.0	41.3	82.6	<1	75-125	<15
Silver	0.00	50.0	44.7	89.4	50.0	44.8	89.6	<1	75-125	<15
Thallium	0.00	50.0	39.2	78.4	50.0	38.9	77.8	<1	75-125	<15
Vanadium	28.9	50.0	75.6	93.4	50.0	75.6	93.4	<1	75-125	<15
Zinc	40.9	50.0	81.9	82.0	50.0	82.0	82.2	<1	75-125	<15

QC Batch No: 1121162C6; Dup or Spiked Sample: 85324.01; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	51.0	102	50.0	50.5	101	<1	75-125	<15	
Arsenic	50.0	52.0	104	50.0	51.0	102	1.94	75-125	<15	
Barium	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	
Beryllium	50.0	56.2	112	50.0	55.8	112	<1	75-125	<15	
Cadmium	50.0	51.9	104	50.0	51.9	104	<1	75-125	<15	
Chromium	50.0	49.7	99.4	50.0	49.8	99.6	<1	75-125	<15	
Cobalt	50.0	51.3	103	50.0	51.3	103	<1	75-125	<15	
Copper	50.0	51.7	103	50.0	48.8	97.6	5.38	75-125	<15	
Lead	50.0	50.5	101	50.0	49.8	99.6	1.40	75-125	<15	
Mercury (By EPA 7471)	0.500	0.530	106	0.500	0.500	100	5.8	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C6; Dup or Spiked Sample: 85324.01; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	49.0	98.0	50.0	48.6	97.2	<1	75-125	<15	
Nickel	50.0	50.5	101	50.0	50.5	101	<1	75-125	<15	
Selenium	50.0	52.5	105	50.0	52.0	104	<1	75-125	<15	
Silver	50.0	51.5	103	50.0	51.5	103	<1	75-125	<15	
Thallium	50.0	51.0	102	50.0	50.5	101	<1	75-125	<15	
Vanadium	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	
Zinc	50.0	52.5	105	50.0	52.0	104	<1	75-125	<15	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C7; Dup or Spiked Sample: 85324.19; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	47.5	95.0	50.0	46.8	93.6	1.48	75-125	<15
Arsenic	0.00	50.0	49.0	98.0	50.0	48.8	97.6	<1	75-125	<15
Barium	37.8	50.0	88.3	101	50.0	88.8	102	<1	75-125	<15
Beryllium	0.00	50.0	56.0	112	50.0	56.5	113	<1	75-125	<15
Cadmium	0.00	50.0	46.5	93.0	50.0	46.9	93.8	<1	75-125	<15
Chromium	4.14	50.0	53.5	98.7	50.0	53.1	97.9	<1	75-125	<15
Cobalt	3.00	50.0	51.5	97.0	50.0	51.1	96.2	<1	75-125	<15
Copper	6.02	50.0	56.5	101	50.0	57.0	102	<1	75-125	<15
Lead	0.00	50.0	43.9	87.8	50.0	43.4	86.8	1.15	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.386	77.2	0.500	0.383	76.6	<1	75-125	<15
Molybdenum	0.00	50.0	48.1	96.2	50.0	48.0	96.0	<1	75-125	<15
Nickel	2.51	50.0	47.4	89.8	50.0	47.7	90.4	<1	75-125	<15
Selenium	0.00	50.0	46.4	92.8	50.0	45.9	91.8	1.08	75-125	<15
Silver	0.00	50.0	46.2	92.4	50.0	46.4	92.8	<1	75-125	<15
Thallium	0.00	50.0	39.9	79.8	50.0	40.7	81.4	1.99	75-125	<15
Vanadium	12.9	50.0	62.6	99.4	50.0	62.9	100	<1	75-125	<15
Zinc	17.1	50.0	63.4	92.6	50.0	63.8	93.4	<1	75-125	<15

QC Batch No: 1121162C7; Dup or Spiked Sample: 85324.19; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	
Arsenic	50.0	51.5	103	50.0	51.5	103	<1	75-125	<15	
Barium	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	
Beryllium	50.0	56.5	113	50.0	56.0	112	<1	75-125	<15	
Cadmium	50.0	52.0	104	50.0	51.5	103	<1	75-125	<15	
Chromium	50.0	49.5	99.0	50.0	49.2	98.4	<1	75-125	<15	
Cobalt	50.0	51.5	103	50.0	51.0	102	<1	75-125	<15	
Copper	50.0	49.4	98.8	50.0	49.3	98.6	<1	75-125	<15	
Lead	50.0	50.5	101	50.0	50.0	100	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.530	106	0.500	0.500	100	5.8	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C7; Dup or Spiked Sample: 85324.19; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	49.0	98.0	50.0	48.9	97.8	<1	75-125	<15	
Nickel	50.0	51.0	102	50.0	50.5	101	<1	75-125	<15	
Selenium	50.0	52.5	105	50.0	52.5	105	<1	75-125	<15	
Silver	50.0	52.0	104	50.0	51.5	103	<1	75-125	<15	
Thallium	50.0	50.5	101	50.0	50.0	100	<1	75-125	<15	
Vanadium	50.0	51.5	103	50.0	51.0	102	<1	75-125	<15	
Zinc	50.0	52.5	105	50.0	52.5	105	<1	75-125	<15	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C8; Dup or Spiked Sample: 85324.35; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	44.7	89.4	50.0	45.8	91.6	2.43	75-125	<15
Arsenic	0.00	50.0	47.9	95.8	50.0	47.9	95.8	<1	75-125	<15
Barium	76.9	50.0	127	100	50.0	127	100	<1	75-125	<15
Beryllium	0.00	50.0	53.5	107	50.0	53.0	106	<1	75-125	<15
Cadmium	0.00	50.0	45.0	90.0	50.0	44.6	89.2	<1	75-125	<15
Chromium	8.79	50.0	55.9	94.2	50.0	56.1	94.6	<1	75-125	<15
Cobalt	5.64	50.0	50.6	89.9	50.0	50.9	90.5	<1	75-125	<15
Copper	9.09	50.0	61.1	104	50.0	60.1	102	1.94	75-125	<15
Lead	0.00	50.0	41.3	82.6	50.0	41.5	83.0	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.417	83.4	0.500	0.415	83.0	<1	75-125	<15
Molybdenum	0.00	50.0	44.5	89.0	50.0	44.4	88.8	<1	75-125	<15
Nickel	5.67	50.0	47.8	84.3	50.0	47.5	83.7	<1	75-125	<15
Selenium	0.00	50.0	38.0	76.0	50.0	39.1	78.2	2.85	75-125	<15
Silver	0.00	50.0	45.4	90.8	50.0	44.9	89.8	1.11	75-125	<15
Thallium	0.00	50.0	35.4 M	70.8	50.0	35.7 M	71.4	<1	75-125	<15
Vanadium	24.4	50.0	74.9	101	50.0	74.4	100	<1	75-125	<15
Zinc	30.8	50.0	78.2	94.8	50.0	77.3	93.0	1.92	75-125	<15

QC Batch No: 1121162C8; Dup or Spiked Sample: 85324.35; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	50.5	101	50.0	50.0	100	<1	75-125	<15	
Arsenic	50.0	51.0	102	50.0	50.5	101	<1	75-125	<15	
Barium	50.0	51.5	103	50.0	51.5	103	<1	75-125	<15	
Beryllium	50.0	56.5	113	50.0	56.5	113	<1	75-125	<15	
Cadmium	50.0	52.0	104	50.0	52.0	104	<1	75-125	<15	
Chromium	50.0	49.5	99.0	50.0	49.3	98.6	<1	75-125	<15	
Cobalt	50.0	51.5	103	50.0	51.5	103	<1	75-125	<15	
Copper	50.0	52.5	105	50.0	49.6	99.2	5.68	75-125	<15	
Lead	50.0	50.5	101	50.0	50.0	100	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.530	106	0.500	0.497	99.3	6.5	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1121162C8; Dup or Spiked Sample: 85324.35; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	48.7	97.4	50.0	48.6	97.2	<1	75-125	<15	
Nickel	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	
Selenium	50.0	52.0	104	50.0	52.0	104	<1	75-125	<15	
Silver	50.0	52.0	104	50.0	52.0	104	<1	75-125	<15	
Thallium	50.0	51.0	102	50.0	50.5	101	<1	75-125	<15	
Vanadium	50.0	51.5	103	50.0	51.5	103	<1	75-125	<15	
Zinc	50.0	52.5	105	50.0	52.5	105	<1	75-125	<15	

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1118162A1; Dup or Spiked Sample: B1118162A1; LCS: Clean Sand; QC Prepared: 11/18/2016;MS Analyzed: 11/19/2016; LCS Analyzed: 11/18/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzene	0.00	50.0	52.5	105	50.0	51.5	103	1.92	75-125	<20
Chlorobenzene	0.00	50.0	57.5	115	50.0	56.5	113	1.75	75-125	<20
1,1-Dichloroethene	0.00	50.0	55.0	110	50.0	54.5	109	<1	75-125	<20
Methyl-tert-butyl ether (MTBE)	0.00	50.0	55.5	111	50.0	56.5	113	1.79	75-125	<20
Toluene (Methyl benzene)	0.00	50.0	54.0	108	50.0	53.0	106	1.87	75-125	<20
Trichloroethene	0.00	50.0	55.5	111	50.0	54.0	108	2.74	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	50.0	46.7	93.4	50.0	46.8	93.6	<1	75-125	<20
Dibromofluoromethane	0.00	50.0	49.2	98.3	50.0	49.4	98.8	<1	75-125	<20
Toluene-d8	0.00	50.0	48.1	96.2	50.0	47.7	95.4	<1	75-125	<20

QC Batch No: 1118162A1; Dup or Spiked Sample: B1118162A1; LCS: Clean Sand; QC Prepared: 11/18/2016;MS Analyzed: 11/19/2016; LCS Analyzed: 11/18/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	51.5	103	50.0	52.0	104	<1	75-125	<20	
Chlorobenzene	50.0	57.5	115	50.0	58.5	117	1.72	75-125	<20	
1,1-Dichloroethene	50.0	56.0	112	50.0	56.0	112	<1	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	55.0	110	50.0	55.5	111	<1	75-125	<20	
Toluene (Methyl benzene)	50.0	55.0	110	50.0	55.0	110	<1	75-125	<20	
Trichloroethene	50.0	54.0	108	50.0	55.0	110	1.83	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	51.0	102	50.0	52.0	104	1.94	75-125	<20	
Ethylbenzene	50.0	56.0	112	50.0	56.5	113	<1	75-125	<20	
1,1,1-Trichloroethane	50.0	52.5	105	50.0	53.0	106	<1	75-125	<20	
o-Xylene	50.0	54.5	109	50.0	54.5	109	<1	75-125	<20	
m,p-Xylenes	100	109	109	100	111	111	1.82	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	47.1	94.1	50.0	46.5	93.0	1.17	75-125	<20	
Dibromofluoromethane	50.0	48.0	95.9	50.0	48.0	95.9	<1	75-125	<20	
Toluene-d8	50.0	48.6	97.1	50.0	48.5	96.9	<1	75-125	<20	

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LA Memorial Colisseum Lots 2+3
Los Angeles, CA

Page: **52**

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1119161A2; Dup or Spiked Sample: 85324.35; LCS: Clean Sand; QC Prepared: 11/19/2016;MS Analyzed: 11/20/2016; LCS Analyzed: 11/19/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzene	0.00	50.0	56.5	113	50.0	51.5	103	9.26	75-125	<20
Chlorobenzene	0.00	50.0	53.0	106	50.0	50.0	100	5.83	75-125	<20
1,1-Dichloroethene	0.00	50.0	52.0	104	50.0	44.1	88.2	16.4	75-125	<20
Methyl-tert-butyl ether (MTBE)	0.00	50.0	51.0	102	50.0	55.5	111	8.45	75-125	<20
Toluene (Methyl benzene)	0.00	50.0	52.5	105	50.0	48.8	97.6	7.31	75-125	<20
Trichloroethene	0.00	50.0	59.0	118	50.0	54.5	109	7.93	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	50.0	47.0	94.0	50.0	47.3	94.6	<1	75-125	<20
Dibromofluoromethane	0.00	50.0	49.5	98.9	50.0	49.5	98.9	<1	75-125	<20
Toluene-d8	0.00	50.0	48.3	96.6	50.0	48.8	97.6	1.04	75-125	<20

QC Batch No: 1119161A2; Dup or Spiked Sample: 85324.35; LCS: Clean Sand; QC Prepared: 11/19/2016;MS Analyzed: 11/20/2016; LCS Analyzed: 11/19/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	52.0	104	50.0	49.1	98.2	5.74	75-125	<20	
Chlorobenzene	50.0	48.9	97.8	50.0	47.8	95.6	2.28	75-125	<20	
1,1-Dichloroethene	50.0	45.4	90.8	50.0	42.9	85.8	5.66	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	53.0	106	50.0	60.0	120	12.4	75-125	<20	
Toluene (Methyl benzene)	50.0	47.9	95.8	50.0	45.5	91.0	5.14	75-125	<20	
Trichloroethene	50.0	51.0	102	50.0	50.0	100	1.98	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	52.5	105	50.0	51.5	103	1.92	75-125	<20	
Ethylbenzene	50.0	48.2	96.4	50.0	46.2	92.4	4.24	75-125	<20	
1,1,1-Trichloroethane	50.0	49.8	99.6	50.0	47.4	94.8	4.94	75-125	<20	
o-Xylene	50.0	48.4	96.8	50.0	47.5	95.0	1.88	75-125	<20	
m,p-Xylenes	100	94.2	94.2	100	91.2	91.2	3.24	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	48.1	96.1	50.0	47.7	95.3	<1	75-125	<20	
Dibromofluoromethane	50.0	48.9	97.7	50.0	50.0	100	2.35	75-125	<20	
Toluene-d8	50.0	48.4	96.7	50.0	47.4	94.8	1.96	75-125	<20	

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Los Angeles, CA

Page: **53**

Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1120162A1; Dup or Spiked Sample: 85324.01; LCS: Clean Sand; QC Prepared: 11/20/2016; QC Analyzed: 11/20/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzene	0.00	50.0	39.5	79.0	50.0	38.7	77.4	2.05	75-125	<20
Chlorobenzene	0.00	50.0	37.5	75.0	50.0	37.5	75.0	<1	75-125	<20
1,1-Dichloroethene	0.00	50.0	41.6	83.2	50.0	39.5	79.0	5.18	75-125	<20
Methyl-tert-butyl ether (MTBE)	0.00	50.0	41.5	83.0	50.0	43.3	86.6	4.25	75-125	<20
Toluene (Methyl benzene)	0.00	50.0	38.3	76.6	50.0	37.8	75.6	1.31	75-125	<20
Trichloroethene	0.00	50.0	39.8	79.6	50.0	37.9	75.8	4.89	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	50.0	48.0	96.0	50.0	47.3	94.6	1.46	75-125	<20
Dibromofluoromethane	0.00	50.0	49.5	98.9	50.0	48.8	97.6	1.31	75-125	<20
Toluene-d8	0.00	50.0	48.9	97.7	50.0	48.9	97.7	<1	75-125	<20

QC Batch No: 1120162A1; Dup or Spiked Sample: 85324.01; LCS: Clean Sand; QC Prepared: 11/20/2016; QC Analyzed: 11/20/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	49.3	98.6	50.0	51.5	103	4.37	75-125	<20	
Chlorobenzene	50.0	53.5	107	50.0	55.5	111	3.67	75-125	<20	
1,1-Dichloroethene	50.0	47.3	94.6	50.0	50.0	100	5.55	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	54.0	108	50.0	56.0	112	3.64	75-125	<20	
Toluene (Methyl benzene)	50.0	49.7	99.4	50.0	52.0	104	4.52	75-125	<20	
Trichloroethene	50.0	52.0	104	50.0	54.5	109	4.69	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	49.8	99.6	50.0	52.5	105	5.28	75-125	<20	
Ethylbenzene	50.0	51.5	103	50.0	53.0	106	2.87	75-125	<20	
1,1,1-Trichloroethane	50.0	49.1	98.2	50.0	52.0	104	5.74	75-125	<20	
o-Xylene	50.0	51.0	102	50.0	53.5	107	4.78	75-125	<20	
m,p-Xylenes	100	99.9	99.9	100	103	103	3.06	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	47.7	95.3	50.0	47.4	94.8	<1	75-125	<20	
Dibromofluoromethane	50.0	50.0	100	50.0	50.0	100	<1	75-125	<20	
Toluene-d8	50.0	48.9	97.7	50.0	48.6	97.2	<1	75-125	<20	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB1; Dup or Spiked Sample: 85324.05; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	550	110	500	560	112	1.80	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	114	114	100	99.3	99.3	12.9	75-125	<20

QC Batch No: 112116PB1; Dup or Spiked Sample: 85324.05; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	545	109	500	540	108	<1	75-125	<20	
Surrogates										
Chlorobenzene	100	95.8	95.8	100	95.1	95.1	<1	75-125	<20	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 112116PB2; Dup or Spiked Sample: 85324.39; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	540	108	500	540	108	<1	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	98.4	98.4	100	96.1	96.1	2.34	75-125	<20

QC Batch No: 112116PB2; Dup or Spiked Sample: 85324.39; LCS: Clean Sand; QC Prepared: 11/21/2016; QC Analyzed: 11/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	545	109	500	535	107	1.85	75-125	<20	
Surrogates										
Chlorobenzene	100	96.9	96.9	100	96.5	96.5	<1	75-125	<20	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB1; Dup or Spiked Sample: 85324.01AGA; LCS: Clean Sand; QC Prepared: 11/18/2016;MS Analyzed: 11/19/2016; LCS Analyzed: 11/18/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.770	77.4	1.00	0.770	77.0	<1	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0433	86.6	0.0500	0.0437	87.4	<1	75-125	<20

QC Batch No: 111816OB1; Dup or Spiked Sample: 85324.01AGA; LCS: Clean Sand; QC Prepared: 11/18/2016;MS Analyzed: 11/19/2016; LCS Analyzed: 11/18/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	0.940	93.8	1.00	0.930	92.5	1.40	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0441	88.2	0.0500	0.0426	85.2	3.40	75-125	<20	

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Project ID: 10-42-176-04
Project Name: LOTS 2+3

AETL Job Number	Submitted	Client
85324	11/16/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 111816OB2; Dup or Spiked Sample: 85324.35AGA; LCS: Clean Sand; QC Prepared: 11/18/2016; QC Analyzed: 11/19/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.880	87.9	1.00	0.820	81.7	7.31	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0445	89.0	0.0500	0.0437	87.4	1.80	75-125	<20

QC Batch No: 111816OB2; Dup or Spiked Sample: 85324.35AGA; LCS: Clean Sand; QC Prepared: 11/18/2016; QC Analyzed: 11/19/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	0.900	89.8	1.00	0.840	84.1	6.56	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0430	86.0	0.0500	0.0462	92.4	7.44	75-125	<20	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

Analytical Report – Soil Vapor Samples

Appendix B

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ANALYTICAL REPORT

November 28, 2016

Converse Consultants - Monrovia, CA

Sample Delivery Group:	L873718
Samples Received:	11/18/2016
Project Number:	10-42-176-04
Description:	Lots 2 + 3 LA Memorial Coliseum

Report To: Laura Tanaka
717 S. Myrtle Avenue
Monrovia, CA 91016

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SV1-5 L873718-01 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 13:13
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929176	2	11/24/16 01:44	11/24/16 01:44	MBF

SV2-5 L873718-02 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 13:53
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/25/16 23:50	11/25/16 23:50	MBF

SV3-5 L873718-03 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 14:11
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/26/16 00:33	11/26/16 00:33	MBF

SV4-5 L873718-04 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 14:24
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/26/16 01:15	11/26/16 01:15	MBF

SV5-5 L873718-05 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 14:41
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/26/16 01:56	11/26/16 01:56	MBF

SV6-5 L873718-06 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 14:51
Received date/time: 11/18/16 09:00

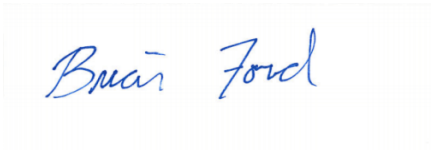
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/26/16 02:38	11/26/16 02:38	MBF

SV8-5 L873718-07 Air

Collected by: Spencer Wagner
Collected date/time: 11/16/16 15:15
Received date/time: 11/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG929327	2	11/26/16 03:20	11/26/16 03:20	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	41.7	99.2		2	WG929176
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929176
Benzene	71-43-2	78.10	0.400	1.28	8.95	28.6		2	WG929176
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929176
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929176
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929176
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929176
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929176
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929176
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929176
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929176
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929176
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929176
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929176
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929176
Cyclohexane	110-82-7	84.20	0.400	1.38	1.45	5.00		2	WG929176
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929176
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929176
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929176
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929176
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929176
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929176
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929176
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929176
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929176
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929176
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929176
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929176
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929176
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG929176
Ethanol	64-17-5	46.10	1.26	2.38	29.5	55.7		2	WG929176
Ethylbenzene	100-41-4	106	0.400	1.73	7.07	30.6		2	WG929176
4-Ethyltoluene	622-96-8	120	0.400	1.96	5.57	27.4		2	WG929176
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	1.90	10.6		2	WG929176
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.415	2.05		2	WG929176
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929176
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929176
Heptane	142-82-5	100	0.400	1.64	8.02	32.8		2	WG929176
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929176
n-Hexane	110-54-3	86.20	0.400	1.41	4.27	15.0		2	WG929176
Isopropylbenzene	98-82-8	120.20	0.400	1.97	0.438	2.15		2	WG929176
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.533	1.85		2	WG929176
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929176
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	5.60	16.5		2	WG929176
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929176
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929176
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929176
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929176
2-Propanol	67-63-0	60.10	2.50	6.15	7.62	18.7		2	WG929176
Propene	115-07-1	42.10	0.800	1.38	2.92	5.02		2	WG929176
Styrene	100-42-5	104	0.400	1.70	1.82	7.74		2	WG929176
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929176
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.691	4.69		2	WG929176
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.06	3.14		2	WG929176
Toluene	108-88-3	92.10	0.400	1.51	52.1	196		2	WG929176
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929176

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	1.23	6.66		2	WG929176
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929176
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929176
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	5.25	25.8		2	WG929176
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.45	7.11		2	WG929176
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	2.30	10.7		2	WG929176
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929176
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929176
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929176
m&p-Xylene	1330-20-7	106	0.800	3.47	27.3	118		2	WG929176
o-Xylene	95-47-6	106	0.400	1.73	7.87	34.1		2	WG929176
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.1*				WG929176

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	37.9	90.2		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	1.67	5.33		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.452	1.41		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	0.658	1.36		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	0.698	2.40		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	14.7	27.7		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	2.73	11.8		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	3.29	16.1		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.534	3.00		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	2.23	9.13		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	1.22	4.29		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	7.05	20.8		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	2.94	12.0		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	3.76	9.25		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	4.91	8.45		2	WG929327
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	6.68	45.3		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.98	5.85		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	13.4	50.6		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.417	2.27		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	4.52	22.2		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.46	7.19		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.837	3.91		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	12.2	52.9		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	3.25	14.1		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*106*				WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	50.8	121		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	1.91	6.09		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	1.91	6.57		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	18.2	34.3		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	3.17	13.8		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	2.34	11.5		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	1.33	5.44		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	0.964	3.40		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	0.501	2.46		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	7.95	23.4		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	2.66	6.53		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	4.18	7.19		2	WG929327
Styrene	100-42-5	104	0.400	1.70	1.26	5.35		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.28	8.69		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	2.47	7.28		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	16.0	60.2		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.406	2.21		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	4.98	24.4		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.60	7.87		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.416	1.95		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	13.9	60.1		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	3.76	16.3		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	16.3	38.8		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	1.46	4.67		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	2.32	7.98		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	10.5	19.8		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	2.28	9.87		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	1.61	7.91		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.420	2.36		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.428	2.12		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	0.911	3.72		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	0.515	1.82		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	0.565	2.78		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	3.91	11.5		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	1.75	3.01		2	WG929327
Styrene	100-42-5	104	0.400	1.70	1.71	7.29		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.915	6.21		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.18	3.47		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	10.3	38.7		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.66	8.15		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.558	2.74		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.465	2.17		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	8.79	38.1		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	2.34	10.2		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.2*				WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	17.1	40.5		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	0.891	2.85		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	0.974	3.35		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	1.42	5.12		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	15.4	29.1		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	1.06	4.59		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.499	2.45		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	0.992	4.06		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	0.612	2.16		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.445	1.54		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	4.23	12.5		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	2.74	6.75		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	3.24	5.58		2	WG929327
Styrene	100-42-5	104	0.400	1.70	1.46	6.22		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.676	4.59		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.48	4.36		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	5.35	20.2		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.640	3.14		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.427	2.00		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	3.40	14.7		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	0.915	3.96		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.9*				WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	31.3	74.4		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	6.29	20.1		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	1.52	5.22		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	28.9	54.5		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	12.6	54.6		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	3.22	15.8		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.677	3.81		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.406	2.01		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	7.06	28.9		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	7.52	26.5		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.415	1.44		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	5.21	15.4		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	6.43	15.8		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	3.27	5.63		2	WG929327
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.826	5.61		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	35.2	133		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	2.11	11.5		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	4.42	21.7		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.20	5.89		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	3.28	15.3		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	53.8	233		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	17.8	77.2		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG929327

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.0	35.6		2	WG929327
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG929327
Benzene	71-43-2	78.10	0.400	1.28	1.86	5.95		2	WG929327
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG929327
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG929327
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG929327
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG929327
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG929327
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG929327
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG929327
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG929327
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG929327
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG929327
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG929327
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG929327
Cyclohexane	110-82-7	84.20	0.400	1.38	0.518	1.79		2	WG929327
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG929327
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG929327
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG929327
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG929327
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG929327
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG929327
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG929327
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG929327
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG929327
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG929327
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG929327
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG929327
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG929327
1,4-Dioxane	123-91-1	88.10	0.400	1.44	0.774	2.79		2	WG929327
Ethanol	64-17-5	46.10	1.26	2.38	13.4	25.4		2	WG929327
Ethylbenzene	100-41-4	106	0.400	1.73	11.5	49.7		2	WG929327
4-Ethyltoluene	622-96-8	120	0.400	1.96	1.00	4.91		2	WG929327
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG929327
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG929327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG929327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG929327
Heptane	142-82-5	100	0.400	1.64	2.92	12.0		2	WG929327
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG929327
n-Hexane	110-54-3	86.20	0.400	1.41	1.98	7.00		2	WG929327
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG929327
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.632	2.20		2	WG929327
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG929327
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	2.82	8.32		2	WG929327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG929327
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG929327
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG929327
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG929327
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG929327
Propene	115-07-1	42.10	0.800	1.38	3.16	5.45		2	WG929327
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG929327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG929327
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.427	2.90		2	WG929327
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG929327
Toluene	108-88-3	92.10	0.400	1.51	10.5	39.6		2	WG929327
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG929327

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG929327
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG929327
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG929327
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.07	5.27		2	WG929327
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG929327
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.02	4.79		2	WG929327
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG929327
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG929327
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG929327
m&p-Xylene	1330-20-7	106	0.800	3.47	53.5	232		2	WG929327
o-Xylene	95-47-6	106	0.400	1.73	20.9	90.5		2	WG929327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.8*				WG929327

Method Blank (MB)

(MB) R3180294-3 11/23/16 09:41

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	0.0938	J	0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

Method Blank (MB)

(MB) R3180294-3 11/23/16 09:41

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.267	J	0.154	0.630
2-Propanol	0.249	J	0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	0.224	J	0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*90.1*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180294-1 11/23/16 08:07 • (LCSD) R3180294-2 11/23/16 08:53

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.99	4.86	133	130	34.3-167			2.77	25
Propene	3.75	4.08	3.97	109	106	53.9-143			2.85	25
Dichlorodifluoromethane	3.75	4.05	4.04	108	108	56.7-140			0.0200	25
1,2-Dichlorotetrafluoroethane	3.75	4.15	4.13	111	110	70.0-130			0.480	25
Chloromethane	3.75	4.11	4.22	110	113	70.0-130			2.72	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180294-1 11/23/16 08:07 • (LCSD) R3180294-2 11/23/16 08:53

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.00	4.04	107	108	70.0-130			0.850	25
1,3-Butadiene	3.75	4.06	3.93	108	105	70.0-130			3.11	25
Bromomethane	3.75	3.98	3.86	106	103	70.0-130			2.95	25
Chloroethane	3.75	4.03	3.88	107	103	70.0-130			3.78	25
Trichlorofluoromethane	3.75	3.95	3.80	105	101	70.0-130			3.88	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	3.89	106	104	70.0-130			2.39	25
1,1-Dichloroethene	3.75	3.97	3.85	106	103	70.0-130			3.17	25
1,1-Dichloroethane	3.75	4.08	4.03	109	108	70.0-130			1.03	25
Acetone	3.75	3.83	3.73	102	99.5	70.0-130			2.72	25
2-Propanol	3.75	4.19	4.17	112	111	50.4-152			0.320	25
Carbon disulfide	3.75	3.97	3.91	106	104	70.0-130			1.66	25
Methylene Chloride	3.75	3.89	3.80	104	101	70.0-130			2.24	25
MTBE	3.75	4.04	3.94	108	105	70.0-130			2.54	25
trans-1,2-Dichloroethene	3.75	4.03	4.01	108	107	70.0-130			0.660	25
n-Hexane	3.75	4.08	4.00	109	107	70.0-130			1.90	25
Vinyl acetate	3.75	4.21	4.06	112	108	70.0-130			3.51	25
Methyl Ethyl Ketone	3.75	4.47	4.35	119	116	70.0-130			2.72	25
cis-1,2-Dichloroethene	3.75	4.30	4.12	115	110	70.0-130			4.14	25
Chloroform	3.75	4.04	3.98	108	106	70.0-130			1.47	25
Cyclohexane	3.75	4.08	3.93	109	105	70.0-130			3.68	25
1,1,1-Trichloroethane	3.75	4.00	3.96	107	106	70.0-130			1.03	25
Carbon tetrachloride	3.75	4.01	3.91	107	104	70.0-130			2.31	25
Benzene	3.75	4.05	4.05	108	108	70.0-130			0.0700	25
1,2-Dichloroethane	3.75	4.04	4.01	108	107	70.0-130			0.770	25
Heptane	3.75	4.12	4.06	110	108	70.0-130			1.63	25
Trichloroethylene	3.75	4.09	4.06	109	108	70.0-130			0.750	25
1,2-Dichloropropane	3.75	4.09	4.05	109	108	70.0-130			0.880	25
1,4-Dioxane	3.75	4.71	4.72	126	126	48.0-156			0.300	25
Bromodichloromethane	3.75	4.10	4.09	109	109	70.0-130			0.150	25
cis-1,3-Dichloropropene	3.75	4.14	4.08	110	109	70.0-130			1.49	25
4-Methyl-2-pentanone (MIBK)	3.75	4.35	4.33	116	115	55.3-154			0.570	25
Toluene	3.75	4.07	4.03	109	107	70.0-130			1.14	25
trans-1,3-Dichloropropene	3.75	4.16	4.21	111	112	70.0-130			1.31	25
1,1,2-Trichloroethane	3.75	4.13	4.19	110	112	70.0-130			1.52	25
Tetrachloroethylene	3.75	4.07	4.09	108	109	70.0-130			0.650	25
Methyl Butyl Ketone	3.75	4.62	4.73	123	126	47.9-165			2.31	25
Dibromochloromethane	3.75	4.17	4.20	111	112	70.0-130			0.760	25
1,2-Dibromoethane	3.75	4.22	4.26	113	114	70.0-130			0.970	25
Chlorobenzene	3.75	4.12	4.21	110	112	70.0-130			2.16	25
Ethylbenzene	3.75	4.12	4.00	110	107	70.0-130			2.89	25

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180294-1 11/23/16 08:07 • (LCSD) R3180294-2 11/23/16 08:53

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.02	7.80	107	104	70.0-130			2.77	25
o-Xylene	3.75	4.05	3.97	108	106	70.0-130			2.03	25
Styrene	3.75	4.31	4.20	115	112	70.0-130			2.38	25
Bromoform	3.75	4.30	4.18	115	112	70.0-130			2.85	25
1,1,2,2-Tetrachloroethane	3.75	4.30	4.18	115	111	70.0-130			2.91	25
4-Ethyltoluene	3.75	4.29	4.17	114	111	70.0-130			2.71	25
1,3,5-Trimethylbenzene	3.75	3.36	4.13	89.7	110	70.0-130			20.4	25
1,2,4-Trimethylbenzene	3.75	4.22	4.12	112	110	70.0-130			2.27	25
1,3-Dichlorobenzene	3.75	4.66	4.50	124	120	70.0-130			3.37	25
1,4-Dichlorobenzene	3.75	4.71	4.54	126	121	70.0-130			3.80	25
Benzyl Chloride	3.75	4.71	4.61	126	123	55.6-160			2.07	25
1,2-Dichlorobenzene	3.75	4.50	4.45	120	119	70.0-130			1.17	25
1,2,4-Trichlorobenzene	3.75	4.38	4.42	117	118	53.6-154			1.02	25
Hexachloro-1,3-butadiene	3.75	4.42	4.37	118	116	62.1-143			1.18	25
Naphthalene	3.75	4.52	4.51	121	120	52.0-158			0.360	25
Allyl Chloride	3.75	4.04	3.94	108	105	70.0-130			2.36	25
2-Chlorotoluene	3.75	4.20	3.76	112	100	70.0-130			11.1	25
Methyl Methacrylate	3.75	4.12	4.07	110	108	70.0-130			1.30	25
Tetrahydrofuran	3.75	4.29	4.16	114	111	65.0-140			3.06	25
2,2,4-Trimethylpentane	3.75	4.17	4.00	111	107	70.0-130			4.09	25
Vinyl Bromide	3.75	3.97	3.85	106	103	70.0-130			2.97	25
Isopropylbenzene	3.75	4.12	4.02	110	107	70.0-130			2.32	25
(S) 1,4-Bromofluorobenzene				*104*	*102*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3180591-3 11/25/16 20:21

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

Method Blank (MB)

(MB) R3180591-3 11/25/16 20:21

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.199	J	0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*100*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180591-1 11/25/16 18:57 • (LCSD) R3180591-2 11/25/16 19:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.43	4.29	118	114	34.3-167			3.15	25
Propene	3.75	3.90	3.95	104	105	53.9-143			1.05	25
Dichlorodifluoromethane	3.75	4.28	4.04	114	108	56.7-140			5.70	25
1,2-Dichlorotetrafluoroethane	3.75	4.00	4.00	107	107	70.0-130			0.0800	25
Chloromethane	3.75	4.02	3.99	107	106	70.0-130			0.680	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180591-1 11/25/16 18:57 • (LCSD) R3180591-2 11/25/16 19:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.11	4.14	110	111	70.0-130			0.910	25
1,3-Butadiene	3.75	4.06	4.04	108	108	70.0-130			0.600	25
Bromomethane	3.75	3.88	3.95	104	105	70.0-130			1.78	25
Chloroethane	3.75	3.91	4.00	104	107	70.0-130			2.43	25
Trichlorofluoromethane	3.75	3.90	3.99	104	106	70.0-130			2.18	25
1,1,2-Trichlorotrifluoroethane	3.75	3.89	3.86	104	103	70.0-130			0.880	25
1,1-Dichloroethene	3.75	3.92	3.90	105	104	70.0-130			0.460	25
1,1-Dichloroethane	3.75	3.95	3.90	105	104	70.0-130			1.09	25
Acetone	3.75	3.87	3.81	103	101	70.0-130			1.58	25
2-Propanol	3.75	3.79	3.74	101	99.7	50.4-152			1.36	25
Carbon disulfide	3.75	3.89	3.95	104	105	70.0-130			1.54	25
Methylene Chloride	3.75	3.69	3.66	98.4	97.5	70.0-130			0.920	25
MTBE	3.75	3.92	3.85	105	103	70.0-130			1.68	25
trans-1,2-Dichloroethene	3.75	3.83	3.86	102	103	70.0-130			0.910	25
n-Hexane	3.75	3.96	3.90	106	104	70.0-130			1.52	25
Vinyl acetate	3.75	3.96	3.95	106	105	70.0-130			0.240	25
Methyl Ethyl Ketone	3.75	3.98	3.94	106	105	70.0-130			1.12	25
cis-1,2-Dichloroethene	3.75	3.89	3.88	104	103	70.0-130			0.150	25
Chloroform	3.75	3.86	3.90	103	104	70.0-130			0.820	25
Cyclohexane	3.75	3.83	3.87	102	103	70.0-130			1.07	25
1,1,1-Trichloroethane	3.75	3.95	3.94	105	105	70.0-130			0.150	25
Carbon tetrachloride	3.75	3.94	3.92	105	105	70.0-130			0.510	25
Benzene	3.75	3.83	3.85	102	103	70.0-130			0.680	25
1,2-Dichloroethane	3.75	3.80	3.82	101	102	70.0-130			0.660	25
Heptane	3.75	3.89	3.88	104	103	70.0-130			0.180	25
Trichloroethylene	3.75	3.82	3.81	102	101	70.0-130			0.360	25
1,2-Dichloropropane	3.75	3.86	3.85	103	103	70.0-130			0.390	25
1,4-Dioxane	3.75	3.87	3.87	103	103	48.0-156			0.130	25
Bromodichloromethane	3.75	3.87	3.86	103	103	70.0-130			0.260	25
cis-1,3-Dichloropropene	3.75	3.89	3.87	104	103	70.0-130			0.530	25
4-Methyl-2-pentanone (MIBK)	3.75	3.89	3.88	104	103	55.3-154			0.260	25
Toluene	3.75	3.90	3.89	104	104	70.0-130			0.450	25
trans-1,3-Dichloropropene	3.75	3.88	3.88	103	103	70.0-130			0.0600	25
1,1,2-Trichloroethane	3.75	3.83	3.83	102	102	70.0-130			0.0300	25
Tetrachloroethylene	3.75	3.83	3.83	102	102	70.0-130			0.0800	25
Methyl Butyl Ketone	3.75	4.00	3.95	107	105	47.9-165			1.41	25
Dibromochloromethane	3.75	3.86	3.83	103	102	70.0-130			0.860	25
1,2-Dibromoethane	3.75	3.89	3.89	104	104	70.0-130			0.210	25
Chlorobenzene	3.75	3.87	3.87	103	103	70.0-130			0.210	25
Ethylbenzene	3.75	3.91	3.94	104	105	70.0-130			0.820	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180591-1 11/25/16 18:57 • (LCSD) R3180591-2 11/25/16 19:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	7.68	7.73	102	103	70.0-130			0.700	25
o-Xylene	3.75	3.90	3.89	104	104	70.0-130			0.290	25
Styrene	3.75	3.92	3.92	105	105	70.0-130			0.0500	25
Bromoform	3.75	3.85	3.86	103	103	70.0-130			0.260	25
1,1,2,2-Tetrachloroethane	3.75	3.78	3.79	101	101	70.0-130			0.240	25
4-Ethyltoluene	3.75	3.86	3.85	103	103	70.0-130			0.240	25
1,3,5-Trimethylbenzene	3.75	3.73	3.79	99.4	101	70.0-130			1.53	25
1,2,4-Trimethylbenzene	3.75	3.80	3.82	101	102	70.0-130			0.650	25
1,3-Dichlorobenzene	3.75	3.78	3.81	101	102	70.0-130			0.680	25
1,4-Dichlorobenzene	3.75	3.81	3.81	101	102	70.0-130			0.220	25
Benzyl Chloride	3.75	3.94	4.04	105	108	55.6-160			2.58	25
1,2-Dichlorobenzene	3.75	3.74	3.79	99.7	101	70.0-130			1.34	25
1,2,4-Trichlorobenzene	3.75	3.76	3.88	100	103	53.6-154			2.98	25
Hexachloro-1,3-butadiene	3.75	3.70	3.73	98.6	99.5	62.1-143			0.900	25
Naphthalene	3.75	3.81	3.93	102	105	52.0-158			3.06	25
Allyl Chloride	3.75	3.90	3.89	104	104	70.0-130			0.230	25
2-Chlorotoluene	3.75	3.76	3.82	100	102	70.0-130			1.61	25
Methyl Methacrylate	3.75	3.90	3.82	104	102	70.0-130			2.04	25
Tetrahydrofuran	3.75	3.78	3.81	101	102	65.0-140			0.580	25
2,2,4-Trimethylpentane	3.75	4.02	4.03	107	107	70.0-130			0.240	25
Vinyl Bromide	3.75	3.91	3.94	104	105	70.0-130			0.960	25
Isopropylbenzene	3.75	3.88	3.89	103	104	70.0-130			0.290	25
(S) 1,4-Bromofluorobenzene				*100*	*101*	*60.0-140*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

[1] Cp
[2] Tc
[3] Ss
[4] Cn
[5] Sr
[6] Qc
[7] Gl
[8] Al
[9] Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address: Converse Consultants, 717 S. Myrtle Ave

Billing Information: same

Report to: Laura Tanaka

Email To: Ltanaka@converseconsultants.com

Project Description: Lots 2+3 LA Memorial Coliseum

City/State Collected: Los Angeles, CA

Phone: 626 930 1200 Fax:

Client Project #: 10-42-176-04

Lab Project #

Collected by (print): Spencer Wagner

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

Analysis: TO-15

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L613710

L125

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Sample Description	Can #	Date	Time	Initial	Final	Rem./Contaminant	Sample # (lab only)
SV1-5		68	11/16/16	13:13	30	2.5		-01
SV2-5		135	11/16/16	13:53	30	3		-02
SV3-5		2383	11/16/16	14:11	30	3		-03
SV4-5		2025	11/16/16	14:24	30	3.5		-04
SV5-5		2349	11/16/16	14:41	30	3		-05
SV6-5		927	11/16/16	14:51	29	3		-06
SV7-5		1831	11/16/16	15:01	could not retrieve sample			~~-07~~
SV8-5		1245	11/16/16	15:15	28.5	3		-08 07

Remarks:

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	11/17/16	9:45			or JW1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ___Y ___N ✓NA
	11/17/16	1350		Amb 8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:
				11-18-16 0800	

ESC
LAB SCIENCES
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: CONCONMCA	SDG# L873718
Cooler Received/Opened On: 11/ 18 /16 Temperature Upon Receipt:	Amb. °C
Received by: Nadiar Yakob	
Signature:	

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?			✓
Non Conformance Generated. (If yes see attached NCF)			

Appendix J

Water Resources Technical Report

700 South Flower Street, Suite 2100 Los Angeles, CA 90017 213.418.0201 kpff.com

LUCAS MUSEUM OF NARRATIVE ART

WATER RESOURCES TECHNICAL REPORT

MARCH 10, 2017

PREPARED BY:

KPFF Consulting Engineers
700 South Flower Street, Suite 2100
Los Angeles, CA 90017
(213) 418-0201

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1. INTRODUCTION

1.1. PROJECT DESCRIPTION

The University of California ("USC"), on behalf of The Lucas Museum Foundation, proposes the development of the Lucas Museum of Narrative Art ("LMNA") located within the western portion of Exposition Park. Exposition Park, comprised of 160 acres of land bounded by Exposition Boulevard to the north, Figueroa Street to the east, Martin Luther King Jr. Boulevard to the south, and Vermont Avenue to the west, houses the Los Angeles Memorial Coliseum, the California Science Center, the Dr. Theodore T. Alexander Jr. Science Center School, the California African American Museum, the Los Angeles County Natural History Museum, the Exposition Park Rose Garden, the Wallis Annenberg Building, the Expo Center, which includes a swim stadium, recreation center, senior citizen center, amphitheater, and pre-school, and the future Banc of California stadium. USC's University Park Campus lies adjacent to the north of Exposition Park.

The proposed LMNA site is developed with surface parking lots with 1,297 parking spaces and a City operated soccer field. The LMNA site contains approximately 688,396 square feet of lot area and is bisected by West 39th Street. The LMNA Project Site is bounded by Vermont Avenue to the west, Jesse Brewer Jr. Park to the north, Bill Robertson Lane to the east, and Lots 124-128 of the Southern District Agricultural Park and Adjoining Lots Tract and Lots 7-10 of Tract 2441 to the south.

LMNA, a non-profit museum led by filmmaker George Lucas, would be a one-of-a-kind gathering place to experience art collections, films and exhibitions dedicated to the power of visual storytelling and the evolution of art and moving images in a setting focused on narrative painting, illustration, photography, film, animation and digital art. The museum will present original work by world renowned and emerging artists, cutting-edge digital technologies, and daily film screenings in state-of-the-art theaters, as well as extraordinary educational opportunities for students of all ages. The collections would include original, artist-made creations, from sketches to storyboards to sets and costumes from movies. The museum would also feature public lectures and classes for all ages, hands-on workshops, after-school programs and camps, and a wide variety of additional educational opportunities.

Special tours, talks, workshops and screenings would be tailored to serve the curriculum of students from grammar school to college age. Collection and Education Programming would include collection presentations, temporary exhibitions, daily film screenings, film premieres, public lectures, hands-on workshops, school tours and programs, classes for all ages, and campus-wide festivals. The LMNA would also include numerous amenities such as a sit-down restaurant, state-of-the-art cinematic theaters, museum store, casual café, lecture halls of various sizes, digital classrooms, video conferencing for guest lectures and workshops, a drop-in library, several spaces available for event rental, and production quality editing classrooms

The LMNA would include five-levels above grade rising to a maximum height of 115 feet with a 299,717 square feet of floor area. A two level parking structure would be located beneath the LMNA along with a separate three level subterranean parking structure located adjacent to the south of the LMNA. A total of 2,202 parking spaces would be provided that would serve the LMNA and replace the existing surface parking. The soccer field would be relocated immediately south of the LMNA site at the corner of Vermont and Martin Luther King, Jr. Boulevard.

The LMNA design elevates at the fourth and fifth levels arching over 39th Street that creates a floating canopy with public park space below. The Project proposes to ultimately vacate 39th Street but would continue to function as a limited vehicular throughway that will also provide museum drop zones, museum entrance plazas, and would permit periodic special events in the vacated area that require closure of the throughway. At the ground level, the museum is split into two wings with two theatres and an entrance lobby located to the east of vacated 39th Street along with a café and museum shop. The ground floor of the west wing would include archive space, and offices with educational space and classrooms located on the second floor. The third level features a library. The two wings connect at the fourth level that would contain the LMNA's main exhibition spaces. The fifth level would feature additional exhibition space and a sit-down restaurant surrounded by a continuous public roof garden along the museum's perimeter with trees, seating areas, and terraces. From the proposed public roof garden, visitors would experience panoramic views of the surrounding Exposition Park and USC campus, Downtown Los Angeles, and surrounding mountains

The LMNA would be a focal point and civic gathering space for Exposition Park, providing public programs for the community and interactive landscape elements. The LMNA project proposes network of proximal open spaces with public open space at the ground level comprised of contoured landscaped areas connected by a series of meandering pedestrian walkways that would share visual and functional connections with the Natural History Museum to the northeast, Museum Park to the east, the Los Angeles Memorial Coliseum to the east, and Jesse Brewer Jr. park to the north.

1.2. SCOPE OF WORK

This report provides a description of the existing surface water hydrology, surface water quality, groundwater level, and groundwater quality at the Project Site. In addition, the Report includes an analysis of the Project's potential significance related to the impact on surface water hydrology, surface water quality, groundwater level and groundwater quality.

2. REGULATORY FRAMEWORK

2.1. SURFACE WATER HYDROLOGY

County of Los Angeles Hydrology Manual

Per City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.[1] The County

[1] Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed February 9, 2017.

also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer system (MS4) Permit, which is enforced on all new developments that connect directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines requires the review and approval from the County Flood Control District department.

Los Angeles Municipal Code

Any proposed drainage improvements within the street right of way or any other property owned by, to be owned by, or under the control of the City requires the approval of a B-permit (Section 62.105, LAMC). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works Bureau of Engineering. Additionally, any connections to the City's storm drain system, such as a catch basin or a storm drain pipe, requires a storm drain permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

2.2. SURFACE WATER QUALITY

Clean Water Act

The Clean Water Act was first introduced in 1948 as the Water Pollution Control Act. The Clean Water Act authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the Clean Water Act forms the basic national framework for the management of water quality and the control of pollutant discharges. The Clean Water Act also sets forth a number of objectives in order to achieve the above-mentioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.[2]

Since its introduction, major amendments to the Clean Water Act have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. Environmental Protection Agency (USEPA), and amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a "Best Management Practices" Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act." Amendments enacted in 1987 required the USEPA to create specific requirements for pollutant discharges.

In response to the 1987 amendments and as part of the NPDES permit program Phase I, the USEPA began requiring NPDES permits for: (1) municipal separate storm sewer systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more

[2] Non-point sources of pollution are carried through the environment via elements such as wind, rain, or storm water and are generated by diffuse land use activities (such as runoff from streets and sidewalks or agricultural activities) rather than from an identifiable or discrete facility.

people (referred to as municipal permits); (2) 11 specific categories of industrial activity; and (3) construction activity that disturbs five acres or more of land. In early 2003, Phase II of the NPDES permit program extended the requirements for NPDES permits to: (1) numerous small municipal separate storm sewer systems,[3] (2) construction sites disturbing between one and five acres, and (3) industrial facilities owned or operated by small MS4s. The NPDES permit program is typically administered by individual, authorized states.

In 2008, the USEPA published draft Effluent Limitation Guidelines (ELGs) for the construction and development industry. On December 1, 2009 the USEPA finalized its 2008 Effluent Guidelines Program Plan.

In California, the NPDES storm water permitting program is administered by the State Water Resources Control Board (SWRCB). The SWRCB was created by the Legislature in 1967. The joint authority of water distribution and water quality protection allows the Board to provide protection for the State's waters, through its nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop "basin plans" for their hydrologic areas, issue waste discharge requirements, enforce action against storm water discharge violators, and monitor water quality. [4]

Federal Anti-Degradation Policy

The Federal Antidegradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

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[3] A small municipal separate storm sewer system (MS4) is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all small MS4s located in "urbanized areas" as defined by the Bureau of the Census (unless waived by the NPDES permitting authority), and on a case-by-case basis those small MS4s located outside of urbanized areas that the NPDES permitting authority designates.

[4] USEPA. U.S. Environmental Protection Agency - Clean Water Act. July 2011. <https://www.epa.gov/laws-regulations/summary-clean-water-act>.

California Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (CWA) established the legal and regulatory framework for California's water quality control. The California Water Code authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

Under the California Water Code (CWC), the State of California is divided into nine RWQCBs which govern the implementation and enforcement of the CWC and CWA. Each RWQCB is required to formulate and adopt a Basin Plan for its region. This Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to include water discharge prohibitions applicable to particular conditions, areas, or types of waste in its regional plan. The Project Site is located within Region 4, also known as the Los Angeles Region (LARWQCB).

California Anti-Degradation Policy

The California Antidegradation Policy, known as the *Statement of Policy with Respect to Maintaining High Quality Water in California,* was adopted by the SWRCB in 1968 (State Board Resolution No. 68-16). Unlike the Federal Antidegradation Policy which applies only to surface waters, the California Antidegradation Policy applies to all waters of the State. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxics Rule

In 2000, the EPA promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The USEPA promulgated this rule based on their determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health.

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.[5]

[5] Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. <http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/> accessed February 9, 2017.

The Basin Plan is a resource for the RWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

NPDES Permit Program

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the United States. As indicated above, in California, the NPDES storm water permitting program is administered by the SWRCB through its nine RWQCBs.

Construction General Permit

SWRCB Order No. 2009-0009-DWQ known as the "Construction General Permit" was adopted on September 2, 2009. This NPDES permit establishes a risk-based approach to storm water control requirements for construction projects by identifying three project risk levels. The main objectives of the Construction General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in storm water discharges
3. Prevent materials used at a construction site from contacting storm water
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-storm water discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction
7. Establish maintenance commitments on post-construction pollution control measures

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices for a specific construction project, charging Owners with storm water quality management responsibilities. A construction site subject to the Construction General Permit must prepare and implement a SWPPP that meets the requirements of the Construction General Permit.[6] [7]

Los Angeles County Municipal Storm Water System (MS4) Permit

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[6] State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/.

[7] USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

As described above, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On November 8, 2012, the LARWQCB adopted Order No. R4-2012-0175 under the CWA and the Porter-Cologne Act. This Order is the NPDES Permit or MS4 permit for municipal storm water and urban runoff discharges within Los Angeles County. The requirements of this Order (the "Permit") cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the Los Angeles County Flood Control District (LACFCD) is designated as the Principal Permittee. The Permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Permittees.

Stormwater Quality Management Program (SQMP)

In compliance with the Los Angeles County MS4 Permit, the Co-Permittees are required to implement a storm water quality management program (SQMP) with the goal of accomplishing the requirements of the Permit and reducing the amount of pollutants in storm water runoff. The SWMP requires the County of Los Angeles and the 84 incorporated cities to:

- Implement a public information and participation program to conduct outreach on storm water pollution;
- Control discharges at commercial/industrial facilities through tracking, inspecting, and ensuring compliance at facilities that are critical sources of pollutants;
- Implement a development planning program for specified development projects;
- Implement a program to control construction runoff from construction activity at all construction sites within the relevant jurisdictions;
- Implement a public agency activities program to minimize storm water pollution impacts from public agency activities; and
- Implement a program to document, track, and report illicit connections and discharges to the storm drain system.

The MS4 Permit contains the following provisions for implementation of the SQMP by the Co-Permittees:

1. General Requirements:
    - Each permittee is required to implement the SQMP in order to comply with applicable storm water program requirements.
    - The SQMP shall be implemented and each permittee shall implement additional controls so that discharge of pollutants is reduced.

2. Best Management Practice Implementation:

    - Permittees are required to implement the most effective combination of BMPs for storm water/urban runoff pollution control. This should result in the reduction of storm water runoff.

3. Revision of the SQMP:

    - Permittees are required to revise the SQMP in order to comply with requirements of the RWQCB while complying with regional watershed requirements and/or waste load allocations for implementation of Total Maximum Daily Loads (TMDL)s for impaired waterbodies.

4. Designation and Responsibilities of the Principal Permittee:

    The Los Angeles County Flood Control District is designated as the Principal Permittee who is responsible for:

    - Coordinating activities that comply with requirements outlined in the NPDES Permit;
    - Coordinating activities among Permittees;
    - Providing personnel and fiscal resources for necessary updates to the SQMP;
    - Providing technical support for committees required to implement the SQMP; and
    - Implementing the Countywide Monitoring Program required under this Order and assessing the results of the monitoring program.

5. Responsibilities of Co-Permittees:

    Each co-permittee is required to comply with the requirements of the SQMP as applicable to the discharges within its geographical boundaries. These requirements include:

    - Coordinating among internal departments to facilitate the implementation of the SQMP requirements in an efficient way;
    - Participating in coordination with other internal agencies as necessary to successfully implement the requirements of the SQMP; and
    - Preparing an annual Budget Summary of expenditures for the storm water management program by providing an estimated breakdown of expenditures for different areas of concern, including budget projections for the following year.

6. Watershed Management Committees (WMCs):

- Each WMC shall be comprised of a voting representative from each Permittee in the Watershed Management Area (WMA).

- Each WMCs is required to facilitate exchange of information between co-permittees, establish goals and deadlines for WMAs, prioritize pollution control measures, develop and update adequate information, and recommend appropriate revisions to the SQMP.

7. Legal Authority:

    - Co-permittees are granted the legal authority to prohibit non-storm water discharges to the storm drain system including discharge to the MS4 from various development types.

City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff

On March 2, 2007, City Council Motion 07-0663 was introduced by the City of Los Angeles City Council to develop a water quality master plan with strategic directions for planning, budgeting and funding to reduce pollution from urban runoff in the City of Los Angeles. The Water Quality Compliance Master Plan for Urban Runoff was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders to address the requirements of this Council Motion. The primary goal of the Water Quality Compliance Master Plan for Urban Runoff is to help meet water quality regulations. Implementation of the Water Quality Compliance Master Plan for Urban Runoff is intended over the next 20 to 30 years to result in cleaner neighborhoods, rivers, lakes and bays, augmented local water supply, reduced flood risk, more open space, and beaches that are safe for swimming. The Water Quality Compliance Master Plan for Urban Runoff also supports the Mayor and Council's efforts to make Los Angeles the greenest major city in the nation.

- The Water Quality Compliance Master Plan for Urban Runoff identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans. Additionally, the Water Quality Compliance Master Plan for Urban Runoff provides an implementation strategy that includes the following three initiatives to achieve water quality goals:

    - Water Quality Management Initiative, which describes how Water Quality Management Plans for each of the City's watershed and TMDL-specific Implementation Plans will be developed to ensure compliance with water quality regulations.

    - The Citywide Collaboration Initiative, which recognizes that urban runoff management and urban (re)development are closely linked, requiring collaborations of many City agencies. This initiative requires the development of City policies, guidelines, and ordinances for green and sustainable approaches for urban runoff management.

- The Outreach Initiative, which promotes public education and community engagement with a focus on preventing urban runoff pollution.

- The Water Quality Compliance Master Plan for Urban Runoff includes a financial plan that provides a review of current sources of revenue, estimates costs for water quality compliance, and identifies new potential sources of revenue.

City of Los Angeles Stormwater Program

The City of Los Angeles supports the policies of the Construction General Permit through the *Development Best Management Practices Handbook, Part A Construction Activities,* 3rd Edition, and associated ordinances which the City of Los Angeles adopted in September 2004. The handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the Construction General Permit.

The City of Los Angeles supports the requirements of the Los Angeles County Municipal NPDES permit through the City of Los Angeles's *Development Best Management Practices Handbook, Part B Planning Activities*, 4th Edition, which the City of Los Angeles Department of Public Works adopted in June 2011. The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program. Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494.

The City of Los Angeles implements the requirement to incorporate storm water BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for consistency with the City's General Plans, zoning ordinances, and compliance with other applicable local ordinances and codes, including storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following:[8]

- Peak Stormwater Runoff Discharge Rate: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;

- Provide storm drain system stenciling and signage (only applicable if a catch basin is built on-site);

- Properly design outdoor material storage areas to provide secondary containment to prevent spills;

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[8] City of Los Angeles Stormwater Program website, http://www.lastormwater.org/green-la/standard-urban-stormwater-mitigation-plan/; accessed February 9, 2017

- Properly design trash storage areas to prevent off-site transport of trash;
- Provide proof of ongoing BMP Maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment control BMPs:

- Conserve natural and landscaped areas;
- Provide planter boxes and/or landscaped areas in yard/courtyard spaces;
- Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash;
- Provide proof on ongoing BMP maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment Control BMPs:

- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter storm water runoff from one of the following:

- The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998)*;
- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook—Industrial/ Commercial, (1993)*;
- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a storm water conveyance system; or
- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

Los Angeles Municipal Code

Section 64.70 of the LAMC sets forth the City’s Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of the following into any storm drain system:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.

- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.

- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.

- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.

- Any medical, infectious, toxic or hazardous material or waste.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects/materials from being deposited such that they could be carried into the storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in LAMC, Chapter IX, Article 1. Specifically, Section 91.7013 includes regulations pertaining to erosion control and drainage devices, and Section 91.7014 includes general construction requirements, as well as requirements regarding flood and mudflow protection.

Standard Urban Stormwater Mitigation Plan (SUSMP)

Under the Los Angeles County Municipal NPDES Permit, permittees are required to implement a development planning program to address storm water pollution. These programs require project applicants for certain types of projects to implement Standard Urban Stormwater Mitigation Plans (SUSMP) throughout the operational life of their projects. The purpose of SUSMP is to reduce the discharge of pollutants in storm water by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. A project is subject to SUSMP if it falls under one of the categories listed below:

1. Single-family hillside homes
2. Ten or more unit homes (including single family homes, multifamily homes, condominiums, and apartments).
3. Automotive service facilities
4. Restaurants
5. 100,000 or more square-feet of impervious surface in industrial/commercial development.
6. Retail gasoline outlet
7. Parking lots with 5,000 square feet or more of surface area or with 25 or more parking spaces
8. Redevelopment projects in subject categories that meet redevelopment thresholds
9. Location within or directly adjacent to or discharging directly to an environmentally sensitive area if the discharge is likely to impact a sensitive biological species or habitat and the development creates 2,500 square feet or more of impervious surface.

Low Impact Development (LID)

In October 2011, the City of Los Angeles passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70.01 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012.

LID is a storm water management strategy with goals to mitigate the impacts of increased runoff and storm water pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of storm water. The goal of these LID practices is to remove nutrients, bacteria, and metals from storm water while also reducing the quantity and intensity of storm water flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where

infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff may be used. [9]

The intent of the City of Los Angeles LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce storm water/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The City of Los Angeles Bureau of Sanitation, Watershed Protection Division will adopt the LID standards as issued by the LARWQCB and the City of Los Angeles Department of Public Works. The LID Ordinance will conform to the regulations outlined in the NPDES Permit and SUSMP.

2.3. GROUNDWATER

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The Basin Plan is a resource for the Regional Board and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

Safe Drinking Water Act (SDWA)

The Federal Safe Drinking Water Act, established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title

[9] City of Los Angeles. "Development Best Management Practices Handbook." June, 2011

40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the CCR, Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal Safe Drinking Water Act.

California Water Plan

The California Water Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators and other decision-makers.

3. ENVIRONMENTAL SETTING

3.1. SURFACE WATER HYDROLOGY

3.1.1. REGIONAL

The Project Site is located within the greater Los Angeles area within the Ballona Creek Watershed. Ballona Creek is a 9 mile long flood protection channel that drains the Los Angeles basin, from the Santa Monica Mountains on the north, the Harbor Freeway (110) on the east, and the Baldwin Hills on the south. The Ballona Creek Watershed encompasses approximately 130 square miles. It borders the crest of the Santa Monica Mountains on the north, the Ventura-Los Angeles County line, and extends to downtown Los Angeles. To the south, the watershed extends across the Los Angeles plain to include the area north of Baldwin Hills. The major waterways tributary to the Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous storm drains. Refer to Figure 6 for Ballona Creek Watershed Map.

3.1.2. LOCAL

There are existing underground storm drainage facilities located just outside of the Project Site along Vermont Ave, Bill Robertson Lane, Martin Luther King Jr. Blvd. and Figueroa Street, which are owned and maintained by the City. There are also existing underground storm drainage facilities located in 39th Street and Vermont Ave owned and maintained by the County. Stormwater runoff from the Project Site enters catch basins located in the offsite streets via surface flow. Underground storm drainage pipes convey storm water from these local catch basins into Ballona Creek. Ballona Creek flows generally southwest, ultimately discharging into the Pacific Ocean at the Santa Monica Bay. Ballona Creek is designed to discharge to Santa Monica Bay approximately 71,400 cubic feet per second during a 50-year frequency storm event.

The County storm drainage facility noted above includes a 45" storm drain main and curb inlet catch basin within the Project Site which may need to be removed and/or relocated. Based on the current site plan, a potential reroute of this storm drain main would be from 39th Street towards the north within Bill Robertson Lane, west within a new utility corridor between the Museum and the Parking Garage, and then south down Vermont Ave to reconnect to the existing storm drain main. The City of Los Angeles Department of Public Works Drainage Map No. 536 would be analyzed for impacts to drainage areas and hydrologic boundaries in order to determine the final relocation.

Relocation of the storm drain noted above would have impacts on construction site limits, logistics, and schedule. The relocation would involve off-site work within Bill Robertson Lane and Vermont Ave including storm drain and street replacement. Such off-site work would impact usage of public streets and traffic. To mitigate these secondary impacts, the Project would implement City approved construction management and logistics plans that consider adjacent properties and street usage.

3.1.3. ON SITE

The 18 acre Project Site is currently composed of three surface parking lots and a turf soccer field. The Project Site is considered approximately 100% impervious in the following calculations as turf surfaces will behave similarly to paved surfaces during a 50-year storm event. The Project Site's overall topography slopes downward from north to south with a fall in grade of approximately 4 feet from the north most end of the existing State Parking Lot 3 to Leighton Ave, at the southern end of the existing State Parking Lot 2. Storm water from the existing State Parking Lot 3 surface flows south into 39th Street where it is collected by County owned catch basins. Stormwater from the existing State Parking Lot 2 surface flows into Vermont Ave and Leighton Avenue where it is collected by City owned catch basins. Refer to Figure 1 for existing on-site drainage pattern.

As shown in Table 1, the existing Project Site has been analyzed as one drainage area. Existing runoff was analyzed for a 50-year storm event.

Table 1- Existing Drainage Stormwater Runoff Calculations		
Drainage Area	Area (Acres)	Q50 (cfs) (volumetric flow rate measured in cubic feet per second)
Existing Parking Lots and Soccer field within Project Site	18	28.6

3.2. SURFACE WATER QUALITY

3.2.1. REGIONAL

The Project Site lies within Coastal Plain of Los Angeles Groundwater Basin, which is bounded on the west and southwest by the Pacific Ocean, on the southeast by Coyote Creek and the Orange County Coastal Plain, and on the north by the Santa Monica Mountains. The Project Site lies specifically within the Central Subbasin (Basin) as designated by the RWQCB. The Basin underlies the southeastern portion of the Coastal Plain of Los Angeles Groundwater Basin. The Basin is bounded on the north by the La Brea high, on the northeast and east by tertiary rocks of the Elysian, Repetto, Merced, and Puente Hills, and on the southeast by Coyote Creek, and on the southwest by the Newport Inglewood fault system.[10] Surface drainage from the Basin is collected by the Los Angeles and San Gabriel Rivers, which flow west and ultimately empty into the Pacific Ocean.

Constituents of concern listed for the Basin include Total Dissolved Solids (TDS), Radiological Constituents, Nitrates, Volatile Organic Compounds (VOCs), and Pesticides.

3.2.2. LOCAL

In general, urban storm water runoff occurs during and shortly following precipitation events. The volume of water ultimately directed into the drainage system depends on factors such as the intensity and duration of the rainstorm and soil type and saturation. In addition to sediment, contaminants that may be found in storm water from urban developed areas include trash, bacteria, metals, nutrients, and, potentially, organics and pesticides. The source of contaminants is diffuse and includes all areas where precipitation falls, as well as the air it falls through. Therefore, contaminants on roads, maintenance areas, parking lots, and building tops, which are not usually contained in dry weather discharges, may be carried with rainfall drainage into the drainage system. The City has installed catch basins with barrier devices to capture debris before entering the storm drain system. In addition, the City conducts routine street cleaning operations as

[10] http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/4-11.04.pdf

well as periodic cleaning and maintenance of catch basins to reduce storm water pollution within the City.

3.2.3. ON SITE

The Project Site currently does not have structural BMPs for the treatment of storm water runoff from existing impervious surfaces. Stormwater from the existing parking lots flow via surface drainage onto adjacent City streets, and ultimately into catch basins located in 39th Street, Vermont Ave, and Bill Robertson Lane. These catch basins are connected to either the underground City or County storm drainage systems. Contaminants from the surface parking lots are carried via storm water flows into the downstream storm drain system and waterways.

3.3. GROUNDWATER LEVEL

3.3.1. REGIONAL

The City lies within the Coastal Plain of Los Angeles Groundwater Basin. The Coastal Plain of Los Angeles Groundwater Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Subbasins. Groundwater flow in the Coastal Plain of Los Angeles Groundwater Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent saltwater intrusion.

3.3.2. LOCAL

Within the Los Angeles Coastal Plain Groundwater Basin, the Project Site specifically lies within the Basin which underlies the southeastern portion of the Los Angeles Coastal Plain. The Basin is bounded on the north by the La Brea high, on the northeast and east by tertiary rocks of the Elysian, Repetto, Merced, and Puente Hills, and on the southeast by Coyote Creek, and on the southwest by the Newport Inglewood fault system. Groundwater flow from the Basin generally flows east to west.

Groundwater in the Basin is largely replenished by percolation of precipitation and stream flow through Whittier Narrows, a gap through the Merced and Puente Hills in San Gabriel Valley. Artificial recharge is conducted at the San Gabriel River spreading grounds, injecting water from the Metropolitan Water District and recycled water from the Whittier and San Jose Treatment Plants. Urbanization in this area has decreased the surface area open to direct percolation. Therefore, natural recharge is somewhat limited. It is estimated that the Basin receives approximately 102,000 acre-feet per year of water from the various sources noted.

The Project Site is located toward the northeastern portion of the Basin.

3.3.3. ON SITE

Geotechnical reporting of the existing Lucas Museum of Narrative Art Site was performed by Geotechnologies, Inc. dated October 27, 2016. Exploratory borings showed that no groundwater was encountered in borings up to 70 feet below grade. The report notes that the highest historic groundwater level is approximately 40 feet below grade based on the California Division of Mines and Geology for the Hollywood Quadrangle.

In addition, County Department of Public Works reports no existing groundwater production wells within the Project Site.[11]

3.4. GROUNDWATER QUALITY

3.4.1. REGIONAL

As stated above, the City lies within the Coastal Plain of Los Angeles Groundwater Basin which is under the jurisdiction of the LARWQCB. According to LARWQCB's Basin Plan, water quality objectives applying to all ground waters of the Region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate, nitrite), and taste and odor.[12]

3.4.2. LOCAL

As stated above, the Project Site lies within the Coastal Plain of Los Angeles Groundwater Basin. Based upon LARWQCB's Basin Plan, constituents of concern listed for the Coastal Plain of Los Angeles Groundwater Basin local to the Project Site include boron, chloride, sulfate, TDS, and nitrate.

3.4.3. ON-SITE

It is possible for surface water borne contaminants to percolate into groundwater and affect groundwater quality through surface permeable areas. As the existing Project Site is approximately 100% impervious, no appreciable infiltration of potential contaminants described above is expected to occur. Additionally, the good housekeeping practices described above on adjacent City storm drainage systems and compliance with all existing hazardous waste regulations further reduce this potential. Therefore, groundwater quality is not impacted by existing activities at the Project Site.

Other types of risk such as underground storage tanks have a greater potential to impact groundwater. The existing Project Site does not appear to utilize any underground storage tanks nor have any groundwater or water supply wells, thus this risk is negligible.

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11 County of Los Angeles Department of Public Works http://dpw.lacounty.gov/general/wells/, access March 9, 2017

12 Los Angeles Regional Water Quality State Water Resources Control Board, Basin Plan, Water Quality Objectives, April 2013, http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/Final%20Chapter%203%20Text.pdf, accessed February 9, 2017.

4. SIGNIFICANCE THRESHOLDS

4.1. SURFACE WATER HYDROLOGY

The City of Los Angeles *CEQA Thresholds Guide* states that a project would normally have a significant impact on surface water hydrology if it would:

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;
- Substantially reduce or increase the amount of surface water in a water body; or
- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

4.2. SURFACE WATER QUALITY

The City of Los Angeles *CEQA Thresholds Guide* states that a project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination or nuisance, as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body. The CEQA Thresholds Guide and CWC include the following definitions:

"Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".

"Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

"Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes.[13]

4.3. GROUNDWATER

According to the City of Los Angeles *CEQA Thresholds Guide* a project would normally have a significant impact on groundwater quality and groundwater level if it would:

- Affect the rate or change the direction of movement of existing contaminants;

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[13] City of Los Angles. LA. CEQA Thresholds Guides. 2006 http://www.environmentla.org/programs/Thresholds/Complete%20Threshold%20Guide%202006.pdf, February 9, 2017.

- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the CCR, Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.
- Change potable water levels sufficiently to:
    - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;
    - Reduce yields of adjacent wells or well fields (public or private); or
    - Adversely change the rate or direction of flow of groundwater; or
- Result in demonstrable and sustained reduction of groundwater recharge capacity.

5. METHODOLOGY

5.1. SURFACE WATER HYDROLOGY

The Project Site is located just south of the University of Southern California's University Park Campus in southern downtown area under the jurisdiction of the City of Los Angeles. Drainage collection, treatment, and conveyance are regulated by the City, except for the storm drain system in 39th Street that is owned by the County. Per the City's Special Order No. 007-1299, December 3, 1999, the City has adopted the County Department of Public Works (LACDPW) Hydrology Manual as its basis of design for storm drainage facilities. The LACDPW Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. The City's CEQA Threshold Guide, however, establishes the 50-year frequency design storm event as the threshold to analyze potential impacts on surface water hydrology as a result of development. To provide a more conservative analysis, this report analyzed the larger storm event threshold, the 50-year frequency design storm event.

The analysis of the Project includes the 50-year storm event. The Modified Rational Method was used to calculate storm water runoff. The "peak" (maximum value) runoff for a drainage area is calculated using the formula, **Q = CIA**

Where,

Q = Volumetric flow rate (cfs)

C = Runoff coefficient (dimensionless)

I = Rainfall Intensity at a given point in time (in/hr)

A = Basin area (acres)

The Modified Rational Method assumes that a steady, uniform rainfall rate will produce maximum runoff when all parts of the basin area are contributing to outflow. This occurs when the storm event lasts longer than the time of concentration. The time of concentration (Tc) is the time it takes for rain in the most hydrologically remote part of the basin area to reach the outlet.

The method assumes that the runoff coefficient (C) remains constant during a storm. The runoff coefficient is a function of both the soil characteristics and the percentage of impervious surfaces in the drainage area.

LACDPW developed a time of concentration calculator, Hydrocalc, to automate time of concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria as outlined in the Hydrology Manual. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet. The Hydrocalc Calculator was used to determine the storm water peak runoff flow rate for the Project conditions by evaluating an individual sub-area independent of all adjacent subareas. See Figure 3 and Figure 4 for the Hydrocalc Calculator results and Figure 5 for Isohyet Map.

5.2. SURFACE WATER QUALITY

5.2.1. CONSTRUCTION

Construction BMPs will be designed and maintained as part of the implementation of the SWPPP in compliance with the Construction General Permit. The SWPPP shall begin when construction commences, before any site clearing and grubbing or demolition activity. During construction, the SWPPP will be referred to regularly and amended as changes occur throughout the construction process. The Notice of Intent (NOI), Amendments to the SWPPP, Annual Reports, Rain Event Action Plans (REAPs), and Non-Compliance Reporting will be posted to the State's SMARTS website in compliance with the requirements of the Construction General Permit.

5.2.2. OPERATION

The Project will meet the requirements of the LID Manual[14]. Under section 3.1.3 of the LID Manual, post-construction storm water runoff from a new development will be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for at least the volume of water produced by the greater of the 85th percentile storm and the 0.75 inch storm event. The LID Manual prioritizes BMPs with infiltration systems as the top tier priority BMP, capture and reuse as the second tier priority BMP, and biofiltration as the third and last tier priority BMP. The Project will satisfy LID requirements by utilizing one of the priority BMP methods noted above and sizing BMPs to treat the Project Site. Based on the current site plan and conversations with the City of Los Angeles Bureau of Sanitation, the Project is attempting to utilize capture and reuse in order to minimize environmental impacts, including potable water

[14] Referred to in this report as the "LID Manual", The Development Best Management Practices Handbook, Part B Planning Activities, 4th edition was adopted by the City of Los Angeles, Board of Public Works on July 1, 2011 to reflect LID requirements that took effect May 12, 2012.

usage and storm water runoff.. See Exhibit 1 for conceptual Project Site extents.

5.3. GROUNDWATER

This report discusses the impact of the Project as it relates to the underlying groundwater level of the Coastal Plain of Los Angeles Groundwater Basin. The significance of this Project as it relates to the level of the underlying groundwater table included a review of the following considerations:

Analysis and Description of the Project's Existing Condition

- Identification of the Coastal Plain of Los Angeles Groundwater Basin as the underlying groundwater basin, and description of the level, quality, direction of flow, and existing uses for the water;
- Description of the location, existing uses, production capacity, quality, and other pertinent data for spreading grounds and potable water wells in the vicinity (usually within a one mile radius), and;
- Area and degree of permeability of soils on the Project Site, and;

Analysis of the Proposed Project Impact on Groundwater Level

- Description of the rate, duration, location and quantity of extraction, dewatering, spreading, injection, or other activities;
- The projected reduction in groundwater resources and any existing wells in the vicinity (usually within a one mile radius); and
- The projected change in local or regional groundwater flow patterns.

In addition, this report discusses the impact of both existing and proposed activities at the Project Site on the groundwater quality of the underlying Coastal Plain of Los Angeles Groundwater Basin.

Short-term groundwater quality impacts could potentially occur during construction of the Project as a result of soil or shallow groundwater being exposed to construction materials, wastes, and spilled materials. These potential impacts are qualitatively assessed.

6. PROJECT IMPACTS

6.1. CONSTRUCTION

6.1.1. SURFACE WATER HYDROLOGY

Construction activities for the Project would include excavating down approximately 30 feet for basement levels, building structures, and hardscape and landscape around the structures. It is anticipated that grading activities of approximately 926,000 net cubic yards of soil would be involved in construction of the Project. This includes 900,000 cubic yards of export and 26,000 cubic yards of import. These activities have potential to temporarily alter existing drainage patterns and flows on the Project Site by exposing the underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Also, exposed and stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff.

However, as the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES General Construction storm water permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction. The NPDES and SWPPP measures are designed to (and would in fact) contain and treat, as necessary, storm water or construction watering on the Project Site so runoff does not impact off-site drainage facilities or receiving waters. Construction activities are temporary and flow directions and runoff volumes during construction will be controlled.

In addition, the Project would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion. Thus, through compliance with all NPDES General Construction Permit requirements, including preparation of a SWPPP, implementation of BMPs, and compliance with applicable City grading regulations, the Project would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion, siltation, flooding on- or off-site. Similarly, with adherence to standard compliance measurements, construction activities would not cause flooding, substantially increase or decrease the amount of surface water flow from the Project Site into a water body, nor result in a permanent, adverse change to the movement of surface water. As such, temporary construction-related impacts to surface water hydrology would be less than significant.

6.1.2. SURFACE WATER QUALITY

Construction activities such as earth moving, maintenance/operation of construction equipment, potential dewatering, and handling/storage/disposal of materials could contribute to pollutant loading in storm water runoff. However, as previously discussed, construction contractors disturbing greater than an acre of soil would be required to obtain coverage under the NPDES General Construction Permit (order No. 2009-0009-SWQ). In accordance with the requirements of the permit, the Project Applicant would prepare and implement a site-specific SWPPP adhering to the California Stormwater Quality Association (CASQA) BMP Handbook. The SWPPP would specify BMPs to be used during construction. BMPs would include but not be limited to: erosion control, sediment

control, non-storm water management, and materials management BMPs. Refer to Exhibit 1 for typical SWPPP BMPs to be implemented during construction of the Project.

As discussed below, the Project is not expected to require dewatering during construction. Dewatering operations are practices that discharge non-storm water, such as groundwater, that must be removed from a work location to proceed with construction into the drainage system. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedance of the NPDES requirements. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with the NPDES permit. The temporary system would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations.

With the implementation of site-specific BMPs included as part of the SWPPP, the Project would reduce or eliminate the discharge of potential pollutants from the storm water runoff. In addition, the Project Applicant would be required to comply with City grading permit regulations, which require necessary measures, plans (including a wet weather erosion control plan if construction occurs during the rainy season), and inspection to reduce sedimentation and erosion. Therefore, with compliance with NPDES requirements and City grading regulations, construction of the Project would not result in discharge that would violate any water quality standard or waste discharge requirements, or otherwise substantially degrade water quality. Furthermore, construction of the Project would not result in discharges that would cause regulatory standards to be violated in the Los Angeles River. Therefore, temporary construction-related impacts on surface water quality would be less than significant.

6.1.3. GROUNDWATER HYDROLOGY

Based on the California Divisions of Mines and Geology, Hollywood Quadrangle, the historic high groundwater level is on the order of 40 feet below the existing grade. Additionally, previous boring explorations immediately west of the subject site, did not encounter groundwater to a depth of 70 feet below grade. Another investigation also conducted ¼-mile to the east of the site, did not encounter groundwater to a depth of 130 feet below grade.

As stated above, construction activities for the Project would include excavating down approximately 30 feet for subterranean parking. Dewatering operations are not expected. Therefore, the Project would result in less than significant impacts related to groundwater and would not substantially deplete groundwater supplies in a manner that would result in a net deficit in aquifer volume or lowering of the local groundwater table.

6.1.4. GROUNDWATER QUALITY

Regarding water quality specifically, temporary construction practices that discharge non-storm water, such as groundwater releases from potential dewatering activities, must be removed from a work location to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedances of the General Permit requirements.

As discussed above, the Project would include excavations to an approximate depth of 30 feet below ground surface and dewatering operations are not expected given the anticipated groundwater depth. The Project would also result in a net export of existing

soil material. Although not anticipated at the Project Site, any contaminated soils found would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with regulatory requirements.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, would reduce the potential for the construction of the Project to release contaminants into groundwater that could affect existing contaminants, expand the area or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well. In addition, as there are no groundwater production wells or public water supply wells on-site or within one mile of the Project Site, construction activities would not be anticipated to affect existing wells. Therefore, the Project would not result in any substantial increase in groundwater contamination through hazardous materials releases and impacts on groundwater quality would be less than significant.

6.2. OPERATION

6.2.1. SURFACE WATER HYDROLOGY

The Project will maintain approximately the same percentage of impervious area as the existing condition when determining preliminary drainage calculations. Although the Project Site includes portions of landscape and pervious groundcover, majority of the Project Site will be developed by subterranean parking structure below the groundcover. Drainage systems will be required to collect stormwater runoff from the landscape areas similar to areas with impervious groundcover. The Project Site is currently developed with asphalt paved parking lots and a turf soccer field, considered to be approximately 100% impervious surface coverage. Accordingly, the proposed Project will not substantially increase runoff flows and volumes into the existing storm drain system based on the methods described above.

In the existing condition, storm water sheet flows from the Project Site without capture devices. The Project Site is required to comply with LID ordinance, and thus would be required to capture and treat a portion of the site's storm water volume. Refer to Figure 1 for illustration of where storm water is captured and discharged in the existing condition.

Table 2 shows the proposed 50-year frequency design storm event peak flow rate within the Project Site. A comparison of the pre and post peak flow rates indicates no increase in storm water runoff. Consequently, the Project would not cause a significant increase or impact to the existing conditions of the following:

- flooding during the 50-year developed storm event;
- storm water runoff exceeding the capacity of existing or planned drainage systems, causing construction of new storm water drainage facilities or expansion of existing facilities;,
- amount of surface water in a water body; or
- permanent change to the movement of surface water.

Table 2 – Proposed Drainage Stormwater Runoff Calculations				
Drainage Area	Project Site Area (Acres)	Pre-Project Q50 (cfs) (volumetric flow rate in cubic feet per second)	Post-Project Q50 (cfs) (volumetric flow rate in cubic feet per second)	Incremental Increase from Existing to Proposed Condition
Proposed Project	18	28.6	28.6	0%

As noted above, the Project will comply with LID requirements, likely by implementation capture and reuse BMPs to mitigate storm water runoff from building roof drains and site hardscape areas. In addition, development of the Project will not increase the anticipated storm water flow and runoff from the existing site. The post-project condition will improve storm water management by controlling and reducing runoff flows and volume.

As noted above, the Project would not increase the rate or volume of storm water runoff. In other words, the Project would not substantially increase the amount of surface water directed into the existing public infrastructure and downstream body of water. A portion of a County storm drain system currently exists in 39th Street. The current project includes relocating this storm drain to a new utility corridor on the north side of the proposed building, and reconnecting all of the existing, upstream tributary area drainage connections. The proposed relocation may marginally impact the length and slope of the storm drain piping, but would retain the same hydraulic capacity as the existing system. The Project would therefore not impact existing storm drain infrastructure surrounding and serving the Project Site, and runoff would continue to follow the same discharge paths and drain to the same storm systems. Therefore, potential impacts to site hydrology would be less than significant.

In addition, the Project Site is not located within a 100-year flood plain or within an area that could be impacted by a seiche, tsunami or mudflow (Refer to Figure 7 in the Appendix). Therefore, impacts related to those potential issues are less than significant. The Project Site is within the potential inundation area of the Hollywood Reservoir according to the City of Los Angeles General Plan Safety Element, Figure 8: Inundation & Tsunami Hazard Areas (Refer to Figure 8 in the Appendix). Dam safety regulations are the primary means of reducing damage or injury doe to inundation occurring from dam failure. The California Division of Safety of Dams regulates the siting, design, construction, and periodic review of all dams in the State. In addition, dams and reservoirs are monitored during storms and measures are instituted in the event of potential overflow. These measures include seismic retrofits and other related dam improvements completed under the requirements of the 1972 State Dam Safety Act. Further, in the event of a dam failure at the Hollywood Reservoir, existing urban development north of the Project Site, including the US 101 Freeway, would serve as a physical barrier between the upstream

portion of the reservoirs/dams and the Project Site. Therefore, the risk of flooding from inundation by a seiche or dam failure is considered low and impacts are less than significant.

6.2.2. SURFACE WATER QUALITY

As previously described, the Project would be required to implement SUSMP and LID requirements throughout the operational life of the Project. As part of these requirements, the Project would prepare a SUSMP which would outline the storm water treatment measures or post-construction BMPs required to control pollutants of concern. In addition, consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff that leaves the Project Site, the Project would include the installation of an infiltration system as established by the LID Manual.

The LID Manual prioritizes BMPs with infiltration systems as the top tier priority BMP. Feasibility of the proposed infiltration BMP will be determined according to the criteria established in the LID manual, along with coordination with the City. As is typical of most urban developments, storm water runoff from the Project Site has the potential to introduce pollutants into the storm water system. Anticipated and potential pollutants generated by the Project are sediment, nutrients, pesticides, metals, pathogens, and oil and grease.

The pollutants listed above are expected to, and would in fact, be mitigated through the implementation of approved LID BMPs. In addition, the implementation of the following LID BMPs would be included as part of the SUSMP for the Project to manage post-construction storm water runoff.

- Promote evapotranspiration and infiltration, and the use of native and/or drought tolerant plants;
- Provide storm drain system stenciling and signage to discourage illegal dumping;
- Design material storage areas and loading docks within structures or enclosures to prevent leaks or spills of pollutants from entering the storm drain system;
- Provide evidence of ongoing BMP maintenance as part of a legal agreement with the City of Los Angeles. Recorded covenant and agreements for BMP maintenance are part of standard building permit approval processing; and
- Design post-construction structural or treatment control BMPs to infiltrate storm water runoff. Stormwater treatment facilities and systems would be designed to meet the requirements of the SUSMP and LID Manual.

As described above, the Project Site currently does not have structural BMPs for the treatment of storm water runoff from the existing impervious surfaces. Therefore, implementation of BMP systems proposed as part of the Project would result in a substantial improvement in surface water quality runoff from the existing parking lot. In addition, the implementation of BMPs, which would utilize the natural adsorption and filtration characteristics of vegetated swales and pervious surfaces, would allow for more opportunities to direct storm water to flow through the planting media where pollutants are filtered, absorbed, and biodegraded by the soil and plants, prior to infiltrating to the ground below. However, due to the limited vegetated area of both the existing and proposed

Project Site, these effects are expected to be less significant than the proposed structural BMPs in terms of incremental improvement of existing conditions.

Due to the incorporation of the LID storm water management BMPs, operation of the Project would not result in discharges that would cause: (1) an incremental increase in pollution which would alter the quality of the waters of the State (i.e., Santa Monica Bay) to a degree which unreasonably affects beneficial uses of the waters; (2) an incremental increase in contamination in waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) an incremental increase in the treatment or disposal of wastes that would constitute a nuisance (would be injurious to health and affect an entire community or neighborhood, or any considerable number of persons). Thus, operational impacts on surface water quality would be less than significant.

6.2.3. GROUNDWATER HYDROLOGY

The percolation of precipitation that falls on pervious surfaces is variable dependent upon the soil type, condition of the soil, vegetative cover, and other factors. Implementation of the Project would include both the addition and removal of impervious surfaces throughout the Project Site. In addition, the Project would include the installation of SUSMP and LID BMPs, which would mitigate at minimum the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event. The installed BMP systems will be designed with an internal bypass or overflow system to prevent upstream flooding due to large storm events. The storm water which bypasses the BMP systems would discharge to an approved discharge point in the public right-of-way and not result in infiltration of a large amount of rainfall, which would affect groundwater hydrology, including the direction of groundwater flow.

As discussed above, Project development would require excavations with a maximum depth of approximately 30 feet below grade. Based on the California Divisions of Mines and Geology, Hollywood Quadrangle, the historic high groundwater level in the vicinity of the Project Site was on the order of 40 feet below grade. In addition, based on the absence of groundwater identified as part of the borings conducted at the adjacent sites drilled to depths of 70 feet below grade, permanent dewatering operations are not expected to be required. Furthermore, there are no existing wells or spreading grounds within one mile of the Project Site and the Project would not include new injection or supply wells.

Based on the above, operation of the Project would result in a less than significant impact on groundwater hydrology, including groundwater levels.

6.2.4. GROUNDWATER QUALITY

As discussed above, Project development would require excavations to approximately 30 feet below grade. Based on the California Divisions of Mines and Geology, Hollywood Quadrangle, the historic high groundwater level in the vicinity of the Project Site was on the order of 40 feet below grade. In addition, based on the absence of groundwater identified as part of the borings conducted at the adjacent sites drilled to depths of 70 feet below grade, permanent dewatering operations are not expected to be required. Furthermore, there are no existing wells or spreading grounds within one mile of the Project Site and the Project would not include new injection or supply wells.

Operational activities which could affect groundwater quality include spills of hazardous materials and leaking underground storage tanks. Surface spills from the handling of hazardous materials most often involve small quantities and are cleaned up in a timely manner, thereby resulting in little threat to groundwater. Other types of risks such as leaking underground storage tanks have a greater potential to affect groundwater. There are currently no known underground storage tanks within the Project Site and none are anticipated to be installed by the Project. Thus, operation of underground tanks on the Project Site will result in a less than significant impact on groundwater quality.

In addition, compliance with all applicable existing regulations at the Project Site would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in CCR, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, as described above, operation of the Project would not dewatering activities based on the depth of excavation for the proposed uses and the depth of groundwater below the Project Site. The Project does not include the installation or operation of water wells, or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility. The Project does not include surface or subsurface application or introduction of potential contaminants or waste materials during construction or operation. The Project is not anticipated to result in releases or spills of contaminants that could reach a groundwater recharge area or spreading ground or otherwise reach groundwater through percolation.

Based on the above, operation of the Project would result in a less than significant impact on groundwater quality.

6.3. CUMULATIVE IMPACTS

6.3.1. SURFACE WATER HYDROLOGY

The geographic context for the cumulative impact analysis on surface water hydrology is the Ballona Creek Watershed. The Project in conjunction with the cumulative growth in the Ballona Creek Watershed (inclusive of the related projects) would cumulatively increase storm water runoff flows potentially resulting in cumulative impacts to surface water hydrology. However, as described above, in accordance with City requirements, related projects and other future development projects would be required to implement BMPs such that post-development peak storm water runoff discharge rates would not exceed the estimated pre-development rates. Furthermore, LACDPW would review each future development project on a case-by-case basis to ensure sufficient local and regional drainage capacity is available to accommodate storm water runoff. Therefore, cumulative impacts on surface water hydrology would be less than significant.

6.3.2. SURFACE WATER QUALITY

Future growth in the Ballona Creek Watershed would be subject to NPDES requirements relating to water quality for both construction and operation. In addition, since the Project Site is located in a highly urbanized area, future land use changes or development are not likely to cause substantial changes in regional surface water quality. As noted above, the Project does not have an adverse impact on surface water quality. Additionally, it is anticipated that the Project and other future development projects would be subject to LID requirements and implementation of measures to comply with total maximum daily loads. Increases in regional controls associated with other elements of the MS4 Permit would improve regional water quality over time. Therefore, through compliance with all

applicable laws, rules and regulations, cumulative impacts to surface water quality would be less than significant.

6.3.3. GROUNDWATER HYDROLOGY

Cumulative groundwater hydrology impacts could result from the overall utilization of groundwater basins located in proximity to the Project Site and the related projects. In addition, interruptions to existing injection or supply wells or designated spreading grounds would have the potential to affect groundwater levels. Any calculation of the extent to which the related projects would extract or otherwise directly utilize groundwater would be speculative. Nonetheless, to the extent existing injection or supply wells or designated spreading grounds are located within or near the related project sites, could adversely affect local and regional groundwater hydrology, including groundwater levels. In addition, the cumulative utilization of groundwater in the region, either as a result of water extraction under the related project sites or extraction from local basins by the local water supply agency to accommodate the related projects could also adversely affect local and regional groundwater hydrology. However, as described above, no water supply wells, spreading grounds, or injection wells are located within a one mile radius of the Project Site. In addition, Project development would not involve the temporary or permanent extraction of groundwater from the Project Site or otherwise utilize the groundwater.

Furthermore, as previously discussed, implementation of the Project would result in negligible change in impervious surface area. Development of the related projects could result in changes in impervious surface area within their respective project sites. Any calculation of the extent to which the related projects would increase or decrease impervious or pervious surfaces that might affect groundwater hydrology would be speculative. In addition, as the related projects are located in a highly urbanized area, any reduction in groundwater recharge due to the overall net change in impervious area within the related project sites would be minimal in the context of the regional groundwater basin.

Based on the above, cumulative impacts to groundwater hydrology would be less than significant.

6.3.4. GROUNDWATER QUALITY

As described above, compliance with all applicable existing regulations at the Project Site would prevent the Project from affecting or expanding any potential areas affected by contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in CCR, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. As with the Project, other future development projects would be unlikely to cause or increase groundwater contamination because compliance with existing statutes and regulations would similarly prevent the future development projects from affecting or expanding any potential areas affected by contamination, or increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated. Therefore, cumulative impacts to groundwater quality would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report no significant impacts have been identified for surface water hydrology, surface water quality, groundwater hydrology, or groundwater quality for this Project.

APPENDIX

FIGURE 1: EXISTING ON-SITE DRAINAGE



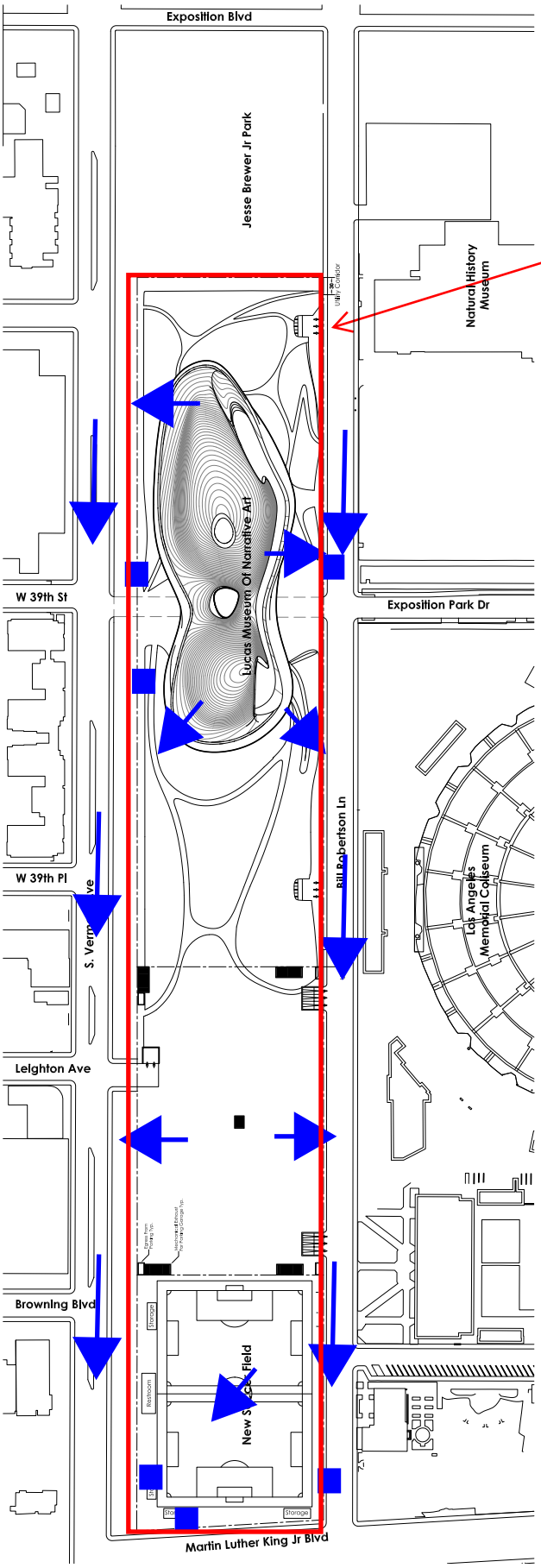
LMNA PROJECT SITE

LEGEND:

TYPICAL SURFACE WATER FLOW

APPROXIMATE CATCH BASIN LOCATION

FIGURE 2: PROPOSED ON-SITE DRAINAGE



LEGEND:

TYPICAL SURFACE WATER FLOW

APPROXIMATE EXISTING CATCH BASIN LOCATION

FIGURE 3: HYDROCALC HYDROLOGY RESULTS FOR EXISTING SITE

Peak Flow Hydrologic Analysis

File location: P:/2016/1600369 LMNA/ENGR/LID/LMNA - HydroCalc Existing_2017-02-17.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	LMNA
Subarea ID	Exisiting
Area (ac)	18.0
Flow Path Length (ft)	2000.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.4
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.4
Peak Intensity (in/hr)	1.7646
Undeveloped Runoff Coefficient (Cu)	0.7064
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	28.5858
Burned Peak Flow Rate (cfs)	28.5858
24-Hr Clear Runoff Volume (ac-ft)	7.2298
24-Hr Clear Runoff Volume (cu-ft)	314929.2915

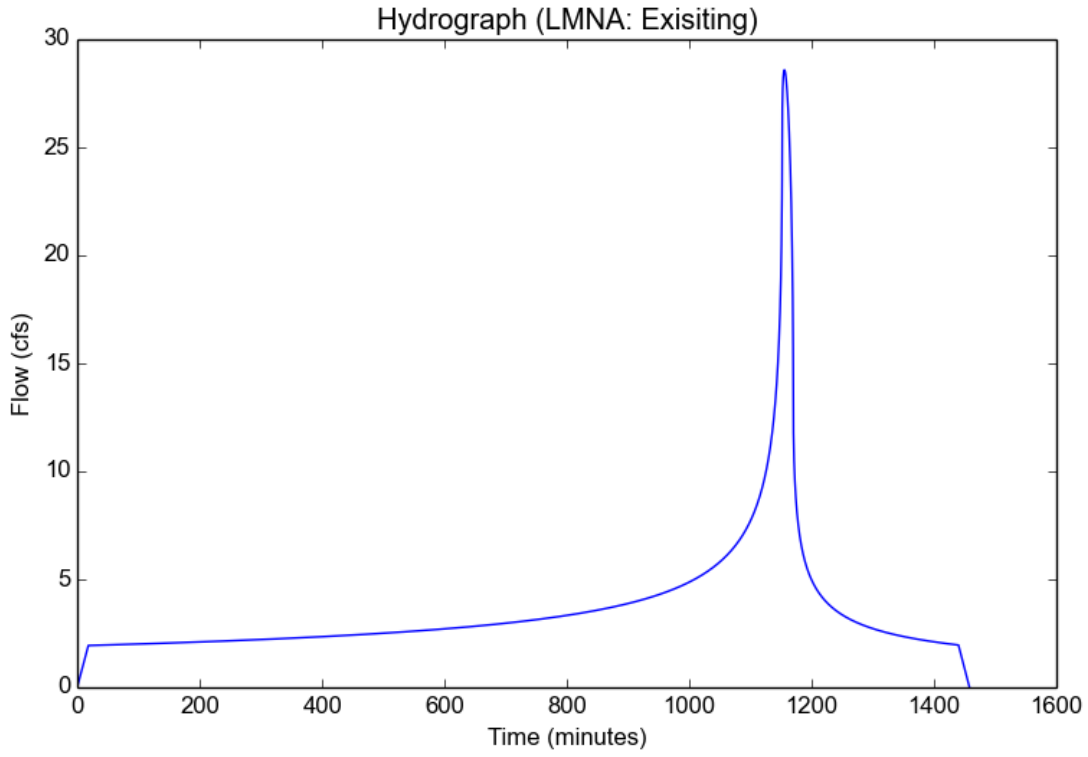


FIGURE 4: HYDROCALC HYDROLOGY RESULTS FOR PROPOSED SITE

Peak Flow Hydrologic Analysis

File location: P:/2016/1600369 LMNA/ENGR/LID/LMNA - HydroCalc Proposed_2017-02-17.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	LMNA
Subarea ID	Proposed
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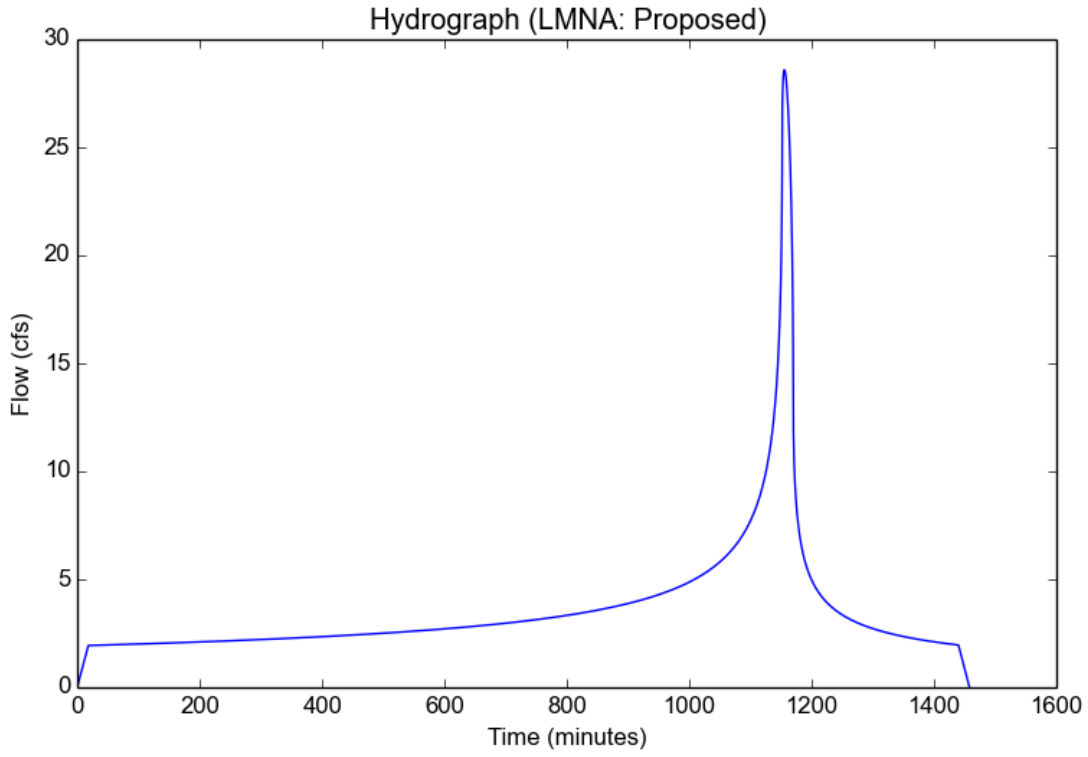


FIGURE 5: LA COUNTY HYDROLOGY DATA MAP

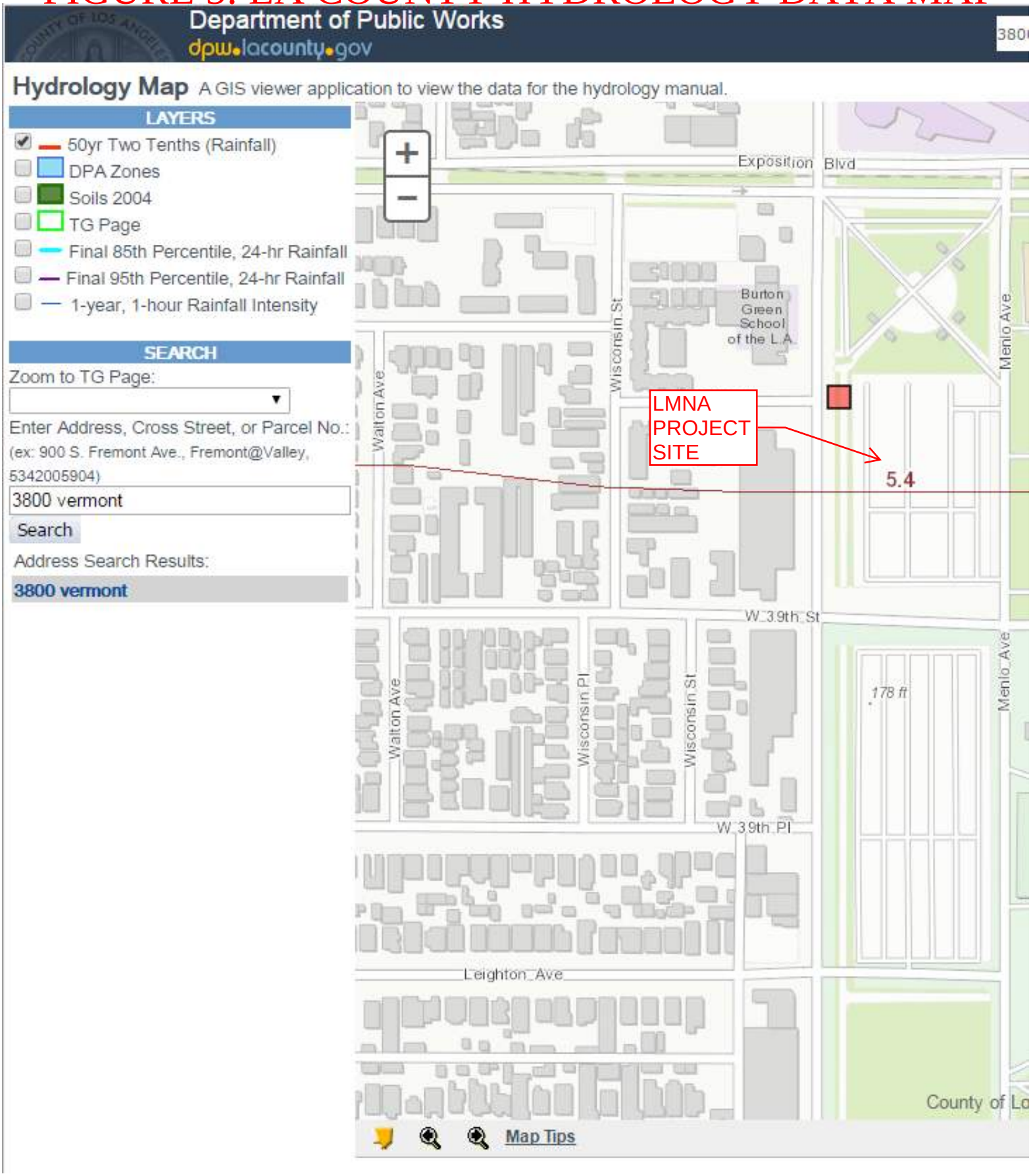
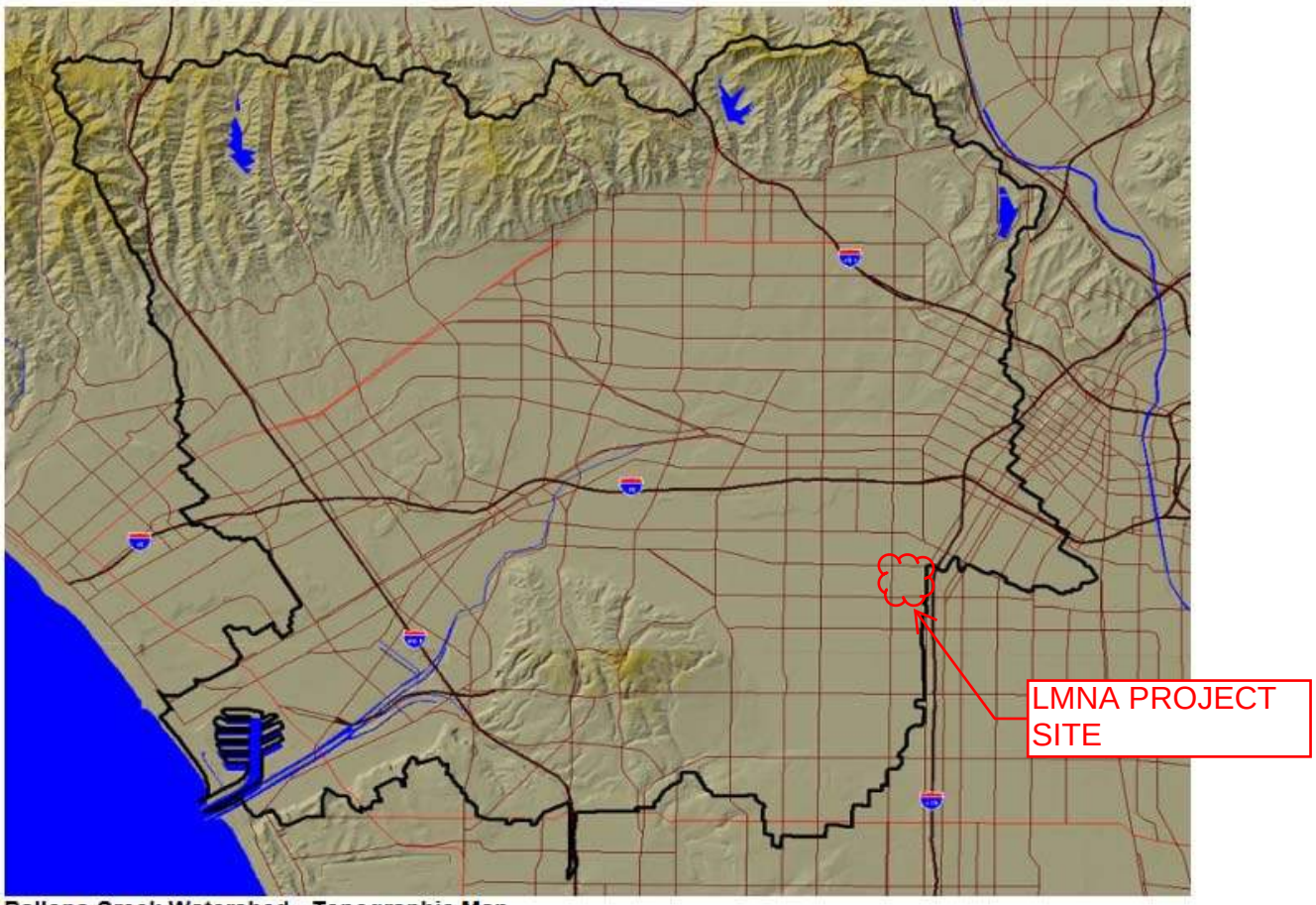


FIGURE 6: WATERSHED MAP



Ballona Creek Watershed - Topographic Map

FIGURE 7: FEMA MAP

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole–foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC–3, #9202
1315 East–West Highway
Silver Spring, MD 20910–3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713–3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later and from National Geospatial Intelligence Agency imagery produced at a scale of 1:4,000 from photography dated 2003 or later.

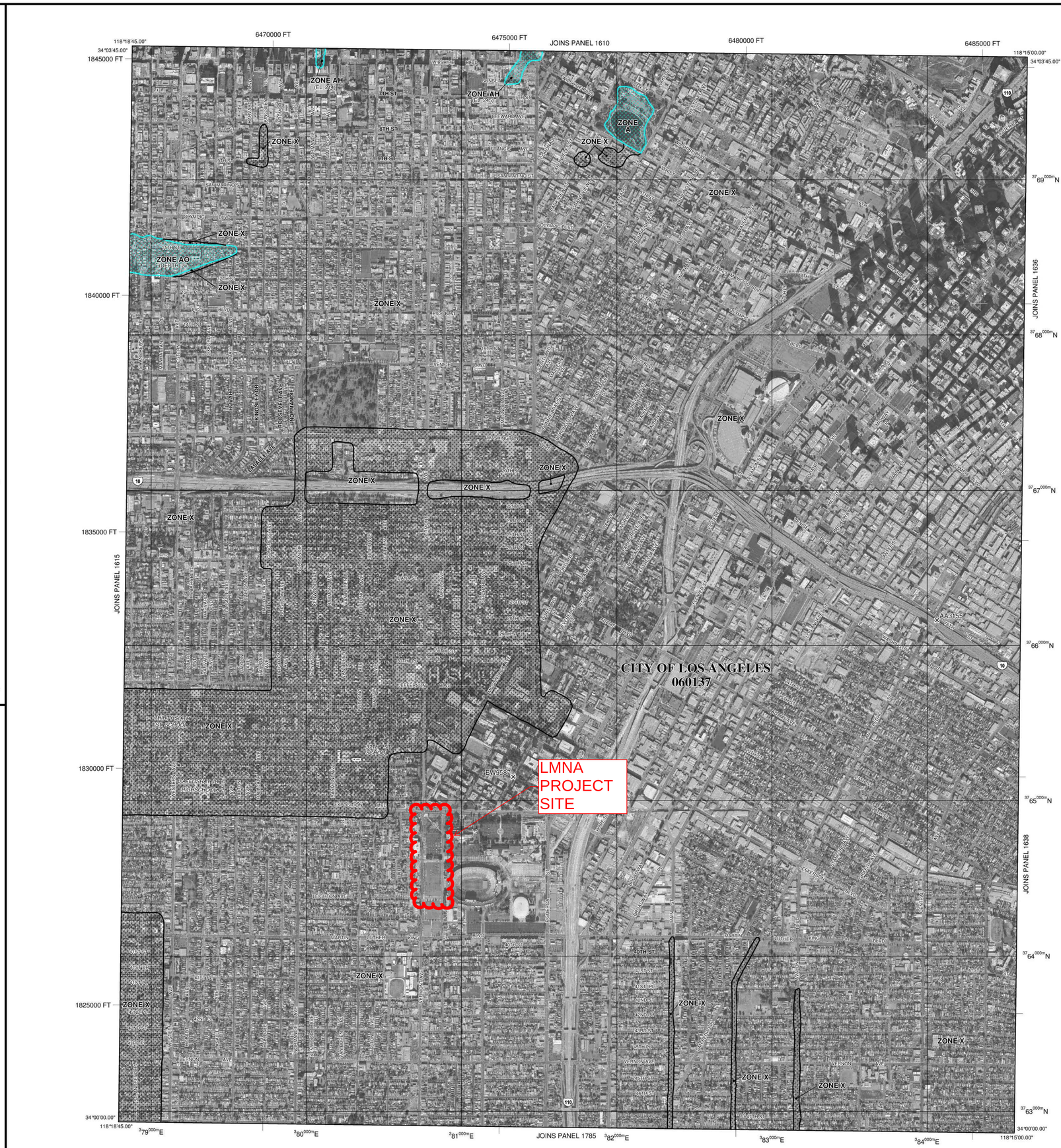
This map reflects more detailed and up–to–date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de–annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1–800–358–9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report,* and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1–800–358–9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1–877–FEMA MAP** (1–877–336–2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A A	Cross section line
23 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid values, zone 11
6000000 FT	5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1–800–638–6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1620F

FIRM

FLOOD INSURANCE RATE MAP

LOS ANGELES COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 1620 OF 2350
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOS ANGELES, CITY OF	060137	1620	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

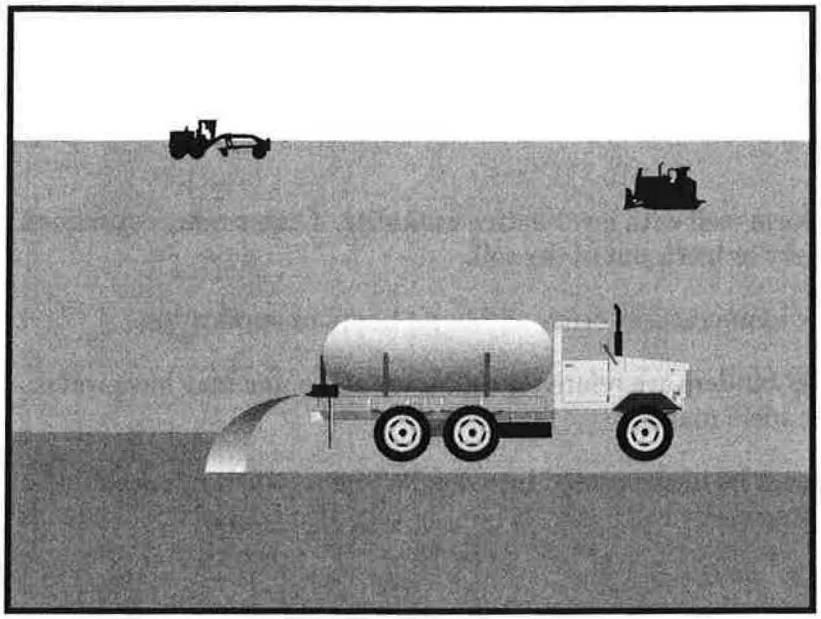
MAP NUMBER
06037C1620F

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

EXHIBIT 1: TYPICAL SWPPP BMPS

Soil Binders EC-5



Objectives

EC	Erosion Control	✓
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	✓
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-3 Hydraulic Mulch
EC-4 Hydroseeding
EC-6 Straw Mulch
EC-7 Geotextiles and Mats
EC-8 Wood Mulching

Description and Purpose

Soil binders consist of applying and maintaining a soil stabilizer to exposed soil surfaces. Soil binders are materials applied to the soil surface to temporarily prevent water induced erosion of exposed soils on construction sites. Soil binders also prevent wind erosion.

Suitable Applications

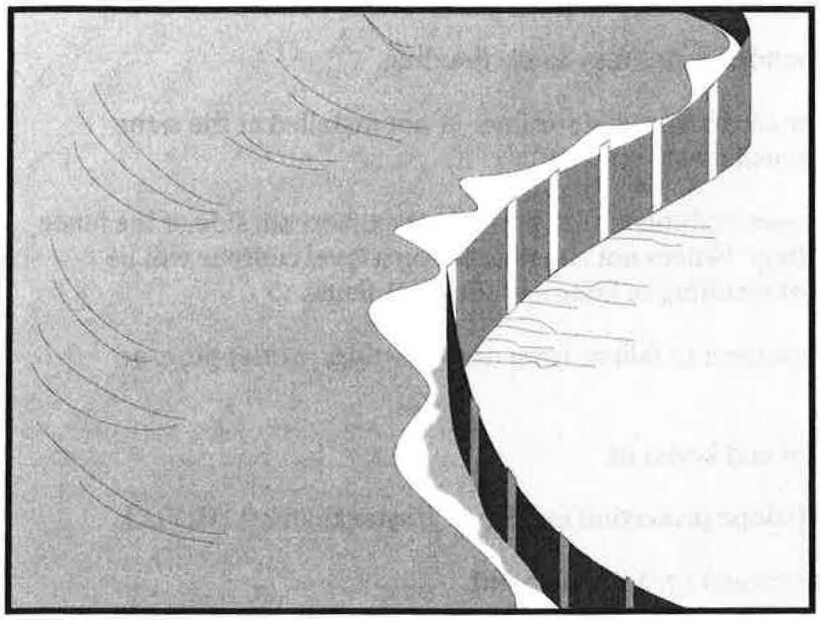
Soil binders are typically applied to disturbed areas requiring short term temporary protection. Because soil binders can often be incorporated into the work, they are a good alternative to mulches in areas where grading activities will soon resume. Soil binders are also suitable for use on stockpiles.

Limitations

- Soil binders are temporary in nature and may need reapplication.
- Soil binders require a minimum curing time until fully effective, as prescribed by the manufacturer. Curing time may be 24 hours or longer. Soil binders may need reapplication after a storm event.
- Soil binders will generally experience spot failures during heavy rainfall events. If runoff penetrates the soil at the top of a slope treated with a soil binder, it is likely that the runoff will undercut the stabilized soil layer and discharge at a point further down slope.

CASQA California Stormwater Quality Association

Silt Fence SE-1



Objectives

EC	Erosion Control	✓
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-9 Straw Bale Barrier

Description and Purpose

A silt fence is made of a filter fabric that has been entrenched, attached to supporting poles, and sometimes backed by a plastic or wire mesh for support. The silt fence detains sediment-laden water, promoting sedimentation behind the fence.

Suitable Applications

Silt fences are suitable for perimeter control, placed below areas where sheet flows discharge from the site. They should also be used as interior controls below disturbed areas where runoff may occur in the form of sheet and rill erosion. Silt fences are generally ineffective in locations where the flow is concentrated and are only applicable for sheet or overland flows. Silt fences are most effective when used in combination with erosion controls. Suitable applications include:

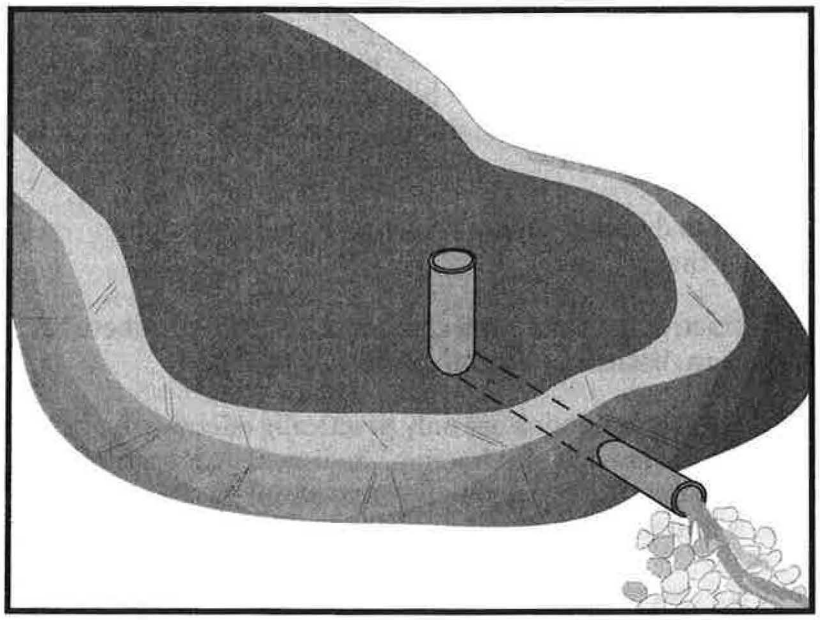
- Along the perimeter of a project.
- Below the toe or down slope of exposed and erodible slopes.
- Along streams and channels.
- Around temporary spoil areas and stockpiles.
- Below other small cleared areas.

Limitations

- Do not use in streams, channels, drain inlets, or anywhere flow is concentrated.

CASQA California Stormwater Quality Association

Sediment Basin SE-2



Objectives		
EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-3 Sediment Trap (for smaller areas)

Description and Purpose

A sediment basin is a temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is discharged.

Suitable Applications

Sediment basins may be suitable for use on larger projects with sufficient space for constructing the basin. Sediment basins should be considered for use:

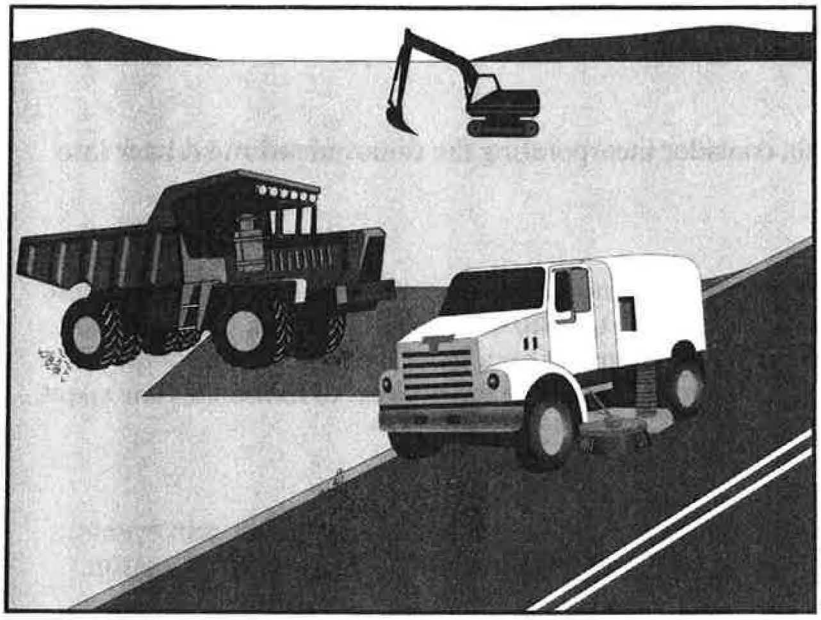
- Where sediment-laden water may enter the drainage system or watercourses
- On construction projects with disturbed areas during the rainy season
- At the outlet of disturbed watersheds between 5 acres and 75 acres
- At the outlet of large disturbed watersheds, as necessary
- Where post construction detention basins are required
- In association with dikes, temporary channels, and pipes used to convey runoff from disturbed areas

Limitations

Sediment basins must be installed only within the property limits and where failure of the structure will not result in loss of life, damage to homes or buildings, or interruption of use or service of

CASQA California Stormwater Quality Association

Street Sweeping and Vacuuming SE-7



Objectives

EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	✓
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

✓ **Primary Objective**

✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	
Oil and Grease	✓
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

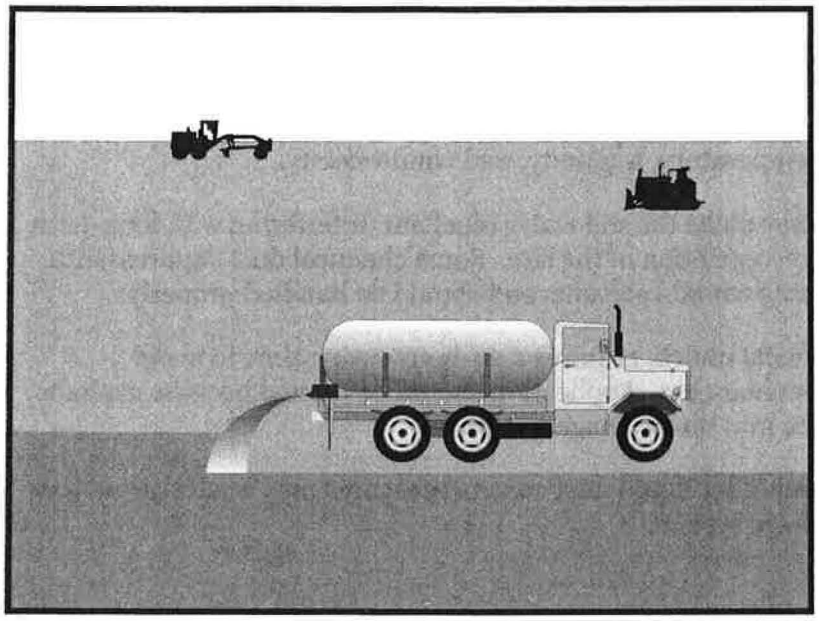
Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

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Wind Erosion Control WE-1



Objectives

EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	
WE	Wind Erosion Control	✓
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

✓ **Primary Objective**

✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Wind erosion or dust control consists of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

Suitable Applications

Wind erosion control BMPs are suitable during the following construction activities:

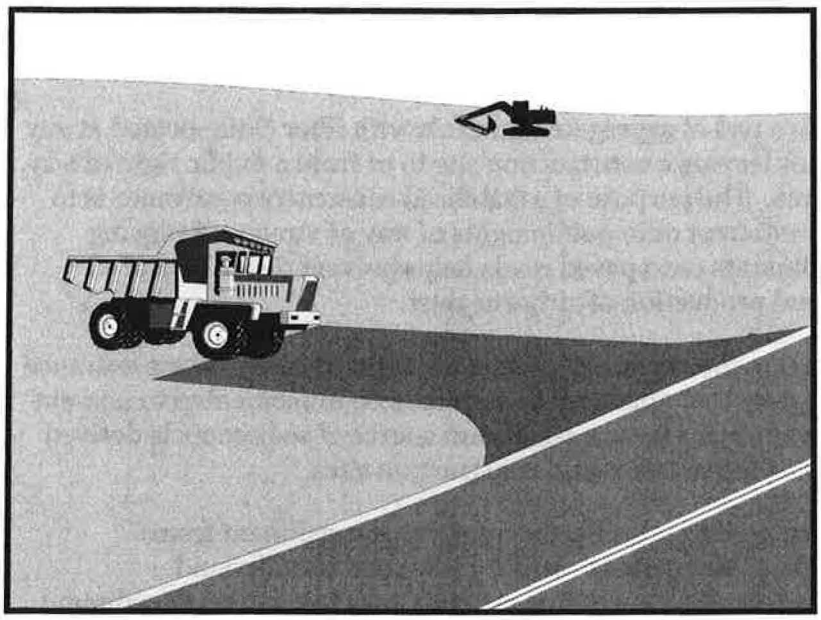
- Construction vehicle traffic on unpaved roads
- Drilling and blasting activities
- Sediment tracking onto paved roads
- Soils and debris storage piles
- Batch drop from front-end loaders
- Areas with unstabilized soil
- Final grading/site stabilization

Limitations

- Watering prevents dust only for a short period and should be applied daily (or more often) to be effective.
- Over watering may cause erosion.

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Stabilized Construction Entrance/Exit TC-1



Objectives

EC	Erosion Control	✓
SE	Sediment Control	✓
TC	Tracking Control	✓
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

✓ **Primary Objective**

✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

Use at construction sites:

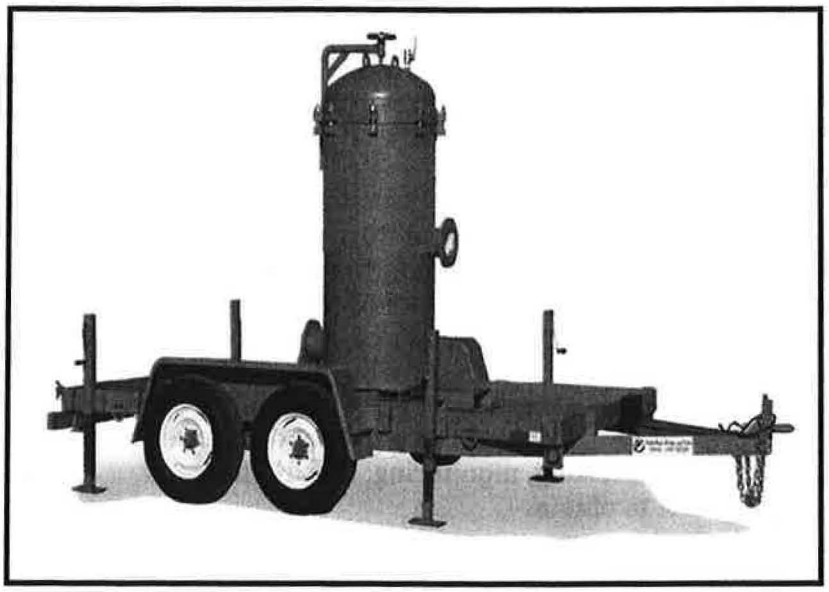
- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

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Dewatering Operations NS-2



Objectives		
EC	Erosion Control	
SE	Sediment Control	✓
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Description and Purpose

Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation must be removed from a work location so that construction work may be accomplished.

Suitable Applications

These practices are implemented for discharges of non-stormwater from construction sites. Non-stormwaters include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area.

Practices identified in this section are also appropriate for implementation when managing the removal of accumulated precipitation (stormwater) from depressed areas at a construction site.

Limitations

- Site conditions will dictate design and use of dewatering operations.
- The controls discussed in this best management practice (BMP) address sediment only.
- The controls detailed in this BMP only allow for minimal settling time for sediment particles. Use only when site conditions restrict the use of the other control methods.
- Dewatering operations will require, and must comply with, applicable local permits.

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	✓
Organics	

Potential Alternatives

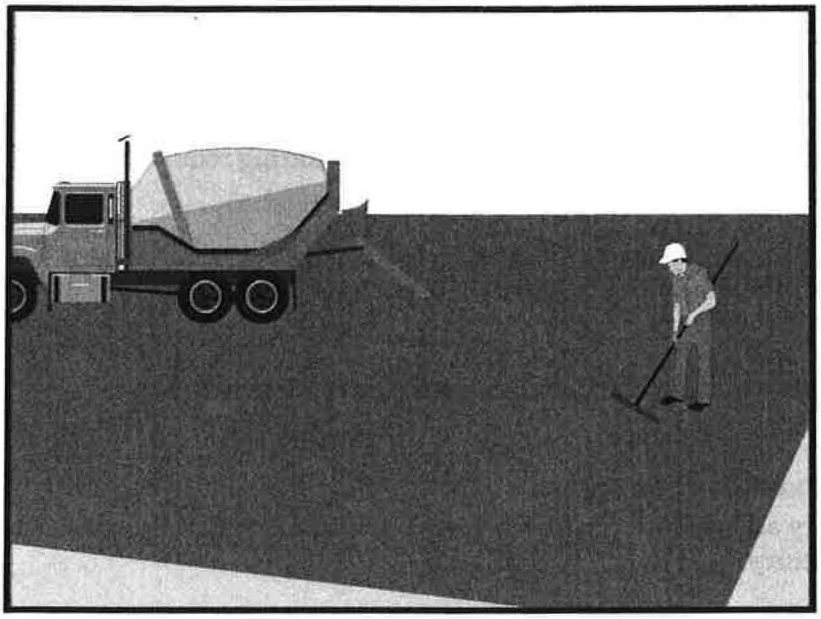
SE-5: Fiber Roll

SE-6: Gravel Bag Berm

SE-9: Straw Bale Barrier

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Paving and Grinding Operations NS-3



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents	
Sediment	✓
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	✓
Organics	

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runon and runoff pollution, properly disposing of wastes, and training employees and subcontractors.

Suitable Applications

These procedures are implemented where paving, surfacing, resurfacing, or sawcutting, may pollute stormwater runoff or discharge to the storm drain system or watercourses.

Limitations

- Finer solids are not effectively removed by filtration systems.
- Paving opportunities may be limited during wet weather.

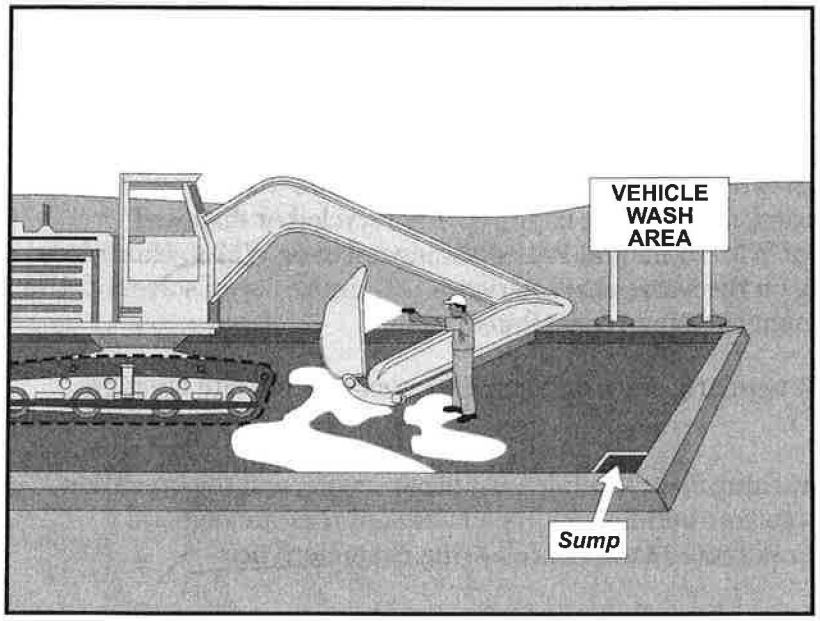
Implementation

General

- Avoid paving during the wet season when feasible.
- Reschedule paving and grinding activities if rain is in the forecast.
- Train employees and sub-contractors in pollution prevention and reduction.
- Store materials away from drainage courses to prevent stormwater runon (see WM-1, Material Delivery and Storage).

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Vehicle and Equipment Cleaning NS-8



Objectives

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	✓
WM	Waste Management and Materials Pollution Control	

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Vehicle and equipment cleaning procedures and practices prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

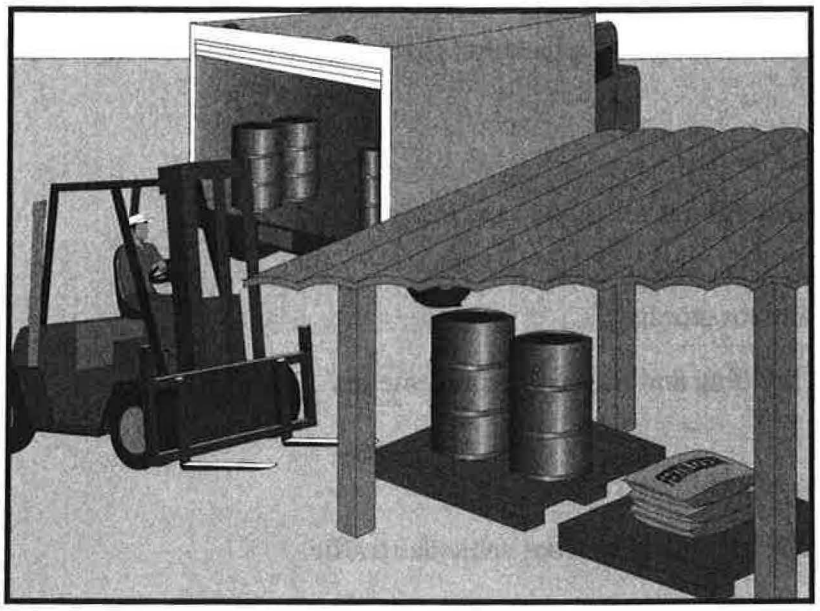
Implementation

Use an offsite commercial washing business as much as possible. These businesses are better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.

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Material Delivery and Storage WM-1



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease
- Asphalt and concrete components

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Stockpile Management WM-3



Objectives		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	✓

Legend:
✓ **Primary Objective**
✓ **Secondary Objective**

Targeted Constituents	
Sediment	✓
Nutrients	✓
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Potential Alternatives

None

Description and Purpose

Stockpile Management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other materials.

Limitations

None identified.

Implementation

Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

- Locate stockpiles a minimum of 50 ft away from concentrated flows of stormwater, drainage courses, and inlets.
- Protect all stockpiles from stormwater runon using a temporary perimeter sediment barrier such as berms, dikes, fiber rolls, silt fences, sandbag, gravel bags, or straw bale barriers.

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