

Holly L. Wolcott, City Clerk  
Office of the City Clerk  
City of Los Angeles  
200 N. Spring Street, Room 360  
Los Angeles, CA 90012

BY \_\_\_\_\_

CITY CLERK

2015 JUN 29 PM 1:10

CITY CLERK'S OFFICE

PLEASE INCLUDE IN THE ADMINISTRATIVE FILE 05-0876-S2

Additional documents submitted to the record that establish a basis of fact that the Community Plan Update during the 2004 process, actually took place over a period of nearly 4 years, as documented in the Staff Report and MND (attached). The flyer notifying the zone changes and map of those changes was circulated to 33,000 residents. There were numerous meetings, as documented on the attached reports. OS was offered as a mitigation measure to satisfy the concerns of local residents worried that their already limited usable parkland was going to experience more pressure as densification occurred with the corresponding upzone from M2 to CM of many parcels in the Elysian Valley.

As noted by sound expert Hans Giroux, the allowable by-right uses that could be permitted without environmental review have the potential to produce noise impacts upon park users.

Page 46 of MRCA Marsh Park MND:

...Two sections of the municipal code address this issue. Section 41.57 of the municipal code prohibits the creation of "loud or raucous noise" in or upon any public park or other public place. Loud and raucous noise is particularly aimed at amplified noise that unreasonably annoys surrounding persons. The term unreasonably is to be evaluated in terms of "hour, place, nature or circumstance of the emission or transmission of any such loud or raucous noise."

From Page 10-3 of the LADPW Prop 84 grant proposal (attached):

The Elysian Valley community where the Project is located fares far worse. According to the Community Fact Finder Report, the usable park space per 1,000 residents within a 0.25 mile radius of the Project is 0.21 acres.

The current Marsh Park, completed as part of Phase I, offers residents 0.58 acres of parkland with amenities, such as a skate park, picnic tables, benches, a barbeque pit, playground and riverfront sitting areas. **However, the predominantly minority, working class residents voiced their desire during community meetings for a more sizable park to accommodate a larger range of activities.** (bold added)

The allowable by-right uses under the zone change from OS to CM would include uses such as a hotel, nightclub, shopping plaza, etc. that would cause increased trips to the location by out-of-area users traveling by automobile. This conflicts with the goals of AB 32 and the ARB Scoping plan (attached).

Thank you for including these records in the file.

Citizens for Open Space  
PO Box 24068  
Los Angeles, CA 90026



Office of Governor  
**Edmund G. Brown Jr.**

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## GOVERNOR BROWN ESTABLISHES MOST AMBITIOUS GREENHOUSE GAS REDUCTION TARGET IN NORTH AMERICA

4-29-2015

### *New California Goal Aims to Reduce Emissions 40 Percent Below 1990 Levels by 2030*

SACRAMENTO - Governor Edmund G. Brown Jr. today issued an executive order to establish a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 - the most aggressive benchmark enacted by any government in North America to reduce dangerous carbon emissions over the next decade and a half.

"With this order, California sets a very high bar for itself and other states and nations, but it's one that must be reached - for this generation and generations to come," said Governor Brown.

This executive action sets the stage for the important work being done on climate change by the Legislature.

The Governor's executive order aligns California's greenhouse gas reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris later this year. The 28-nation European Union, for instance, set the same target for 2030 just last October.

California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent under 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

### World Leaders React

#### United Nations Framework Convention on Climate Change Executive Secretary Christiana Figueres:

"California and Governor Brown have clearly understood, internalised and articulated the science of climate change and today have aligned the state to the growing global understanding of the step changes and strategies needed over the coming years and decades. Resolving climate change requires a swift peaking of emissions and a deep decarbonisation of the global economy by the second half of the century. California's announcement is a realisation and a determination that will gladly resonate with other inspiring actions within the United States and around the globe. It is yet another reason for optimism in advance of the UN climate conference in Paris in December."

World Bank Group President Jim Yong Kim: "Four consecutive years of exceptional drought has brought home the harsh reality of rising global temperatures to the communities and businesses of California. There can be no substitute for aggressive national targets to reduce harmful greenhouse emissions, but the decision today by Governor Brown to set a 40 percent reduction target for 2030 is an example of climate leadership that others must follow."

Premier of Ontario, Canada Kathleen Wynne: "I applaud Governor Brown's continued leadership on climate change. This shows the important role that sub-national governments can play in shaping a strong global agreement on climate change later this year in Paris."

Former New York Mayor Michael Bloomberg: "California's 2030 goal to reduce carbon emissions is not only bold, it's necessary - for the economy and our future."

NextGen Climate Founder Tom Steyer: "When it comes to climate change, California has emerged as a global leader - proving that we don't have to choose between a healthy environment and a strong economy. Today Governor Brown took that leadership to the next level. By setting an ambitious and achievable target to reduce emissions of climate-altering pollutants 40 percent by 2030, Governor Brown is setting a course that will build upon the hundreds of thousands of good paying advanced energy jobs in California, improve the health and wellbeing of Californians and continue our global leadership to solve the greatest challenge of our generation."

Princeton University Professor Michael Oppenheimer: "Governor Brown's ground-breaking commitment not only shows that solving the climate problem goes hand-in-hand with economic growth and technology leadership, but points the way toward a climate solution for other states and the world."

### Climate Adaptation

The executive order also specifically addresses the need for climate adaptation and directs state government to:

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06-28-2016

- Incorporate climate change impacts into the state's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan - the state climate adaption strategy - to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change;
- Factor climate change into state agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce greenhouse gas emissions.

#### California's Response to Climate Change

In his [inaugural address](#) earlier this year, Governor Brown announced that within the next 15 years, California will increase from one-third to 50 percent our electricity derived from renewable sources; reduce today's petroleum use in cars and trucks by up to 50 percent; double the efficiency savings from existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon and other potent pollutants across industries; and manage farm and rangelands, forests and wetlands so they can store carbon.

Since taking office, Governor Brown has signed accords to fight climate change with leaders from [Mexico](#), [China](#), [Canada](#), [Japan](#), [Israel](#) and [Peru](#). The Governor also [issued a groundbreaking call](#) to action with hundreds of world-renowned researchers and scientists - called the [consensus statement](#) - which translates key scientific climate findings from disparate fields into one unified document. The impacts of climate change are already being felt in California and will disproportionately impact the state's most vulnerable populations.

The text of the executive order is below:

#### EXECUTIVE ORDER B-30-15

**WHEREAS** climate change poses an ever-growing threat to the well-being, public health, natural resources, economy, and the environment of California, including loss of snowpack, drought, sea level rise, more frequent and intense wildfires, heat waves, more severe smog, and harm to natural and working lands, and these effects are already being felt in the state; and

**WHEREAS** the Intergovernmental Panel on Climate Change concluded in its Fifth Assessment Report, issued in 2014, that "warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia" and that "continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems;" and

**WHEREAS** projections of climate change show that, even under the best-case scenario for global emission reductions, additional climate change impacts are inevitable, and these impacts pose tremendous risks to the state's people, agriculture, economy, infrastructure and the environment; and

**WHEREAS** climate change will disproportionately affect the state's most vulnerable citizens; and

**WHEREAS** building on decades of successful actions to reduce pollution and increase energy efficiency the California Global Warming Solutions Act of 2006 placed California at the forefront of global and national efforts to reduce the threat of climate change; and

**WHEREAS** the Intergovernmental Panel on Climate Change has identified limiting global warming to 2 degrees Celsius or less by 2050 as necessary to avoid potentially catastrophic climate change impacts, and remaining below this threshold requires accelerated reductions of greenhouse gas emissions; and

**WHEREAS** California has established greenhouse gas emission reduction targets to reduce greenhouse gas emissions to 1990 levels by 2020 and further reduce such emissions to 80 percent below 1990 levels by 2050; and

**WHEREAS** setting an interim target of emission reductions for 2030 is necessary to guide regulatory policy and investments in California in the midterm, and put California on the most cost-effective path for long term emission reductions; and

**WHEREAS** all agencies with jurisdiction over sources of greenhouse gas emissions will need to continue to develop and implement emissions reduction programs to reach the state's 2050 target and attain a level of emissions necessary to avoid dangerous climate change; and

**WHEREAS** taking climate change into account in planning and decision making will help the state make more informed decisions and avoid high costs in the future.

**NOW, THEREFORE, I, EDMUND G. BROWN JR.**, Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular Government Code sections 8567 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately

#### IT IS HEREBY ORDERED THAT:

1. A new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.
2. All state agencies with jurisdiction over sources of greenhouse gas emissions shall implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.
3. The California Air Resources Board shall update the Climate Change Scoping Plan to express the

2030 target in terms of million metric tons of carbon dioxide equivalent.

4. The California Natural Resources Agency shall update every three years the state's climate adaptation strategy, Safeguarding California, and ensure that its provisions are fully implemented. The Safeguarding California plan will:

- Identify vulnerabilities to climate change by sector and regions, including, at a minimum, the following sectors: water, energy, transportation, public health, agriculture, emergency services, forestry, biodiversity and habitat, and ocean and coastal resources;
- Outline primary risks to residents, property, communities and natural systems from these vulnerabilities, and identify priority actions needed to reduce these risks; and
- Identify a lead agency or group of agencies to lead adaptation efforts in each sector.

5. Each sector lead will be responsible to:

- Prepare an implementation plan by September 2015 to outline the actions that will be taken as identified in Safeguarding California, and
- Report back to the California Natural Resources Agency by June 2016 on actions taken.

6. State agencies shall take climate change into account in their planning and investment decisions, and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives.

7. State agencies' planning and investment shall be guided by the following principles

- Priority should be given to actions that both build climate preparedness and reduce greenhouse gas emissions;
- Where possible, flexible and adaptive approaches should be taken to prepare for uncertain climate impacts;
- Actions should protect the state's most vulnerable populations; and
- Natural infrastructure solutions should be prioritized.

8. The state's Five-Year Infrastructure Plan will take current and future climate change impacts into account in all infrastructure projects

9. The Governor's Office of Planning and Research will establish a technical, advisory group to help state agencies incorporate climate change impacts into planning and investment decisions.

10. The state will continue its rigorous climate change research program focused on understanding the impacts of climate change and how best to prepare and adapt to such impacts.

This Executive Order is not intended to create, and does not, create any rights or benefits, whether substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

**I FURTHER DIRECT** that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 29th day of April 2015.

\_\_\_\_\_  
EDMUND G. BROWN JR.  
Governor of California

ATTEST:

\_\_\_\_\_  
ALEX PADILLA  
Secretary of State

## Attachment

## 10

**Greater Los Angeles County Region**  
***IRWM Implementation Grant Proposal***  
***Disadvantaged Community Assistance*****I. Introduction**

The Greater Los Angeles County Region (Region) encompasses many diverse communities, and many of those communities include substantial areas that meet the definition of a Disadvantaged Community (DAC).<sup>1</sup> Oftentimes these DACs have critical water supply and/or water quality needs that the Region seeks to address through the implementation of various projects. These projects may also provide other benefits to DAC areas such as flood protection and new recreational opportunities.

Four projects in this Proposal have been identified as contributing to critical water-related needs of DAC areas. They include:

- Marsh Park Phase II Project
- Peck Water Conservation Improvement Project
- South Gardena Recycled Water Pipeline Project
- Vermont Avenue Stormwater Capture and Green Street Project

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<sup>1</sup> A DAC is defined as communities with an annual median household income below the DAC threshold of \$48,706, or 80% of the Statewide median household income.

## II. Marsh Park, Phase II Project

### *Documentation of the Presence of DACs*

The Marsh Park, Phase II Project overlays the DAC-designated US Census Block Group number 06-037-187200-2, which has a median household income of \$44,338. The DAC areas overlying the Project are illustrated in Figure 10-1. The Project is entirely within a DAC-designated area.

**Figure 10-1: DAC area within Marsh Park Phase II Project boundaries**



### *Description of DAC Needs*

### Critical Lack of Park Space

In the built-out metropolis of Los Angeles, park development efforts oftentimes involve revitalization of “compromised” natural resources like the Los Angeles River. According to the Trust for Public Land, more than 2.6 million people in the Los Angeles area do not live within a quarter mile of a park. The City of Los Angeles ranks in the bottom six of high-density American cities providing parkland per capita. While the City has 6.2 park acres per 1,000 residents overall, communities that are predominately Latino have 1.6 park acres per 1,000 residents; Asian-Americans/Pacific Islanders have 1.2 park acres per 1,000 residents; and African American neighborhoods have 0.8 park acres per 1,000 residents. In contrast, predominately White neighborhoods enjoy 17.4 park acres per 1,000 residents.

The Elysian Valley community where the Project is located fares far worse. According to the Community Fact Finder Report, the usable park space per 1,000 residents within a 0.25 mile radius of the Project is 0.21 acres.

The current Marsh Park, completed as part of Phase I, offers residents 0.58 acres of parkland with amenities, such as a skate park, picnic tables, benches, a barbeque pit, playground and riverfront sitting areas. However, the predominantly minority, working class residents voiced their desire during community meetings for a more sizable park to accommodate a larger range of activities.

### Critical Lack of Access to the Los Angeles River

The property contains two industrial buildings and vacant land, and historically it was used as parking and industrial space. The Project site contains a 3,105 square foot manufacturing building and a 14,300 square foot warehouse.

The industrial character of the site’s existing condition is typical in the surrounding neighborhood, Elysian Valley. The inaccessible Los Angeles River channel has maintenance roads along its banks, Interstate 5, local Highway 2, and commercial railroad tracks that create a limited access border, isolating it from quality of life resources such as recreation, commerce and culture. Even within the community, residences are segregated from the Los Angeles River

Bike Path by a large, impassable swath of industrial parcels that currently characterize the neighborhood's riverfront.

The demolition of two industrial buildings on site will create more recreational access to the Los Angeles River Bike Path, as well as more visual access to the views of the river, nearby hills and the San Gabriel Mountains.

### Water Quality

Based on Mountains Recreation and Conservation Authority's (MRCA) 6-year community outreach and the *State of the River, The Fish Study* (Friends of the Los Angeles River, 2008), fishing activity is on the rise in the river area adjacent to the Project. However, there is insufficient data to determine whether the fish is safe to eat from a toxicity standpoint. In the absence of this data, it is imperative to ensure best water management practices to protect against fish toxicity.

### DAC Support and Outreach

A number of agencies have submitted letters indicating their support of the Project, including:

- City of Los Angeles, River Project Office
- County of Los Angeles, Department of Public Works, Watershed Management Division
- Friends of the Los Angeles River
- Kevin de León, Assembly member of the California Legislature, 45<sup>th</sup> District (currently State Senator of the 22<sup>nd</sup> Senate District)
- Los Angeles Neighborhood Land Trust
- Los Angeles River Revitalization Corporation
- Los Angeles County Bicycle Coalition
- Anahuak Youth Soccer Association

Letters of support are located in Appendix 10-1.

**Disadvantaged Community Assistance**

The MRCA has conducted extensive outreach and has dedicated staff to planning and developing parks in the underserved areas of Los Angeles. To this end, they have established an Urban Parks and Watershed Division dedicated to conserving and restoring natural settings in the urban environment. The MRCA has worked extensively to foster relationships with the community surrounding Marsh Park since 2000. MRCA met with the community members who used the previous phase of Marsh Park and learned from them about the needs of potential users of the next phase of the park.

# Environmental Documents

CITY OF LOS ANGELES  
 OFFICE OF THE CITY CLERK  
 ROOM 395, CITY HALL  
 LOS ANGELES, CALIFORNIA 90012  
 CALIFORNIA ENVIRONMENTAL QUALITY ACT  
 PROPOSED MITIGATED NEGATIVE DECLARATION

Exhibit "K"

<b>LEAD CITY AGENCY</b>	<b>COUNCIL DISTRICT</b>	
LOS ANGELES CITY PLANNING DEPARTMENT	1, 4 and 13	
<b>PROJECT TITLE</b>	<b>CASE NO.</b>	
Silver Lake-Echo Park Community Plan Update	ENV-2003-7281-MND	
<b>PROJECT LOCATION</b>		
The Silver Lake-Echo Park Community Plan Area which is generally bounded by Temple St. on the south, Hoover Street and Hyperion Avenues on the west, the Los Angeles River on the north and northeast and North Broadway, Lilac Terrace and Marview Avenue on the east.		
<b>PROJECT DESCRIPTION</b>		
(SEE PAGE 2)		
<b>NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY</b>		
<b>FINDING:</b>		
<p>The <u>City Planning Department</u> of the City of Los Angeles has proposed that a mitigated negative declaration be adopted for this project because the mitigation measures(s) outlined on the attached page(s) will reduce any potential significant adverse effects to a level of insignificance.</p> <p style="text-align: center;">(CONTINUED ON PAGE 3)</p>		
SEE ATTACHED SHEET(S) FOR ANY MITIGATION MEASURES IMPOSED.		
<p>Any written comments received during the public review period are attached together with the response of the Lead City Agency. The project decision-maker may adopt this mitigated negative declaration, amend it, or require preparation of an EIR. Any changes made should be supported by substantial evidence in the record and appropriate findings made.</p>		
THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED.		
<b>NAME OF PERSON PREPARING THIS FORM</b>	<b>TITLE</b>	<b>TELEPHONE NUMBER</b>
Patricia Diefenderfer	CITY PLANNING ASSOCIATE	(213)978-1478
<b>ADDRESS</b>	<b>SIGNATURE (Official)</b>	<b>DATE</b>
200 N. Spring Street, Room 667 Los Angeles, CA 90012	Charles J. Rausch, Jr., Senior Planner 	10/10/03

## PROJECT DESCRIPTION

### The Silver Lake-Echo Park Community Plan Update program is designed to:

1. Initiate plan amendments and zone changes to implement the Citywide General Plan Framework Element (Framework); and
2. Implement land use policies and programs adopted in the Framework by revising the Community Plan Text and General Plan Land Use Map using a change matrix; removing Plan Text language and Plan Map designations that are inaccurate, out-of-date or otherwise no longer valid; implement zone changes when necessary to achieve consistency with the City's General Plan; add language to the Plan Text as needed to reflect changes in the Plan area; amend the Map Legend to correspond with all Map and Text revisions; and amend and revise the Plan footnotes; and
3. Identify and designate Neighborhood Districts, Community Centers and Mixed Use Boulevards where new development should be concentrated and identify the boundaries for future recommended Supplemental Use Districts, including Mixed Use Districts, Pedestrian Oriented Districts, Commercial and Artcraft Overlay Districts and Community Design Overlay Districts; and
4. Amend the General Plan Land Use Map to reflect revisions, additions and/or deletions to Service Systems and their Map Symbols (Symbols), expansion or improvements to existing fire and police stations, school sites, libraries, park sites, etc.; and to revise and add symbols to identify and reflect changes to public services and resources and new community resources such as symbols for public facilities, house of worship, cultural and historical monuments, municipal buildings, Metrorail stations, maintenance yards, power stations and privately owned land, facilities and structures reserved for public use; and
5. Amend the General Plan Land Use Map and Text to reflect Periodic Plan Review (Batching) cases approved by City Council, which have not been reflected on the Map; and
6. Amend the General Plan Land Use Map to indicate adopted Transit facilities and corridors and to reflect recommendations of the Transportation Improvement Mitigation Program for the Plan area; and
7. Amend the Plan Text and General Plan Land Use Map to incorporate the Silver Lake Reservoir Master Plan, and
8. Amend the Plan Text and General Plan Land Use Map to reflect the designation of Sunset Boulevard, Temple Street and Fountain-Hyperion Avenues as Mixed Use Boulevards; and
9. Amend the Plan Text and the General Plan Land Use Map to designate the area of Silver Lake and Glendale Boulevard as Neighborhood District; the area of Sunset Boulevard and Echo Park Avenue, Alvarado Street from Sunset Boulevard to Temple Street and the area of Sunset and Glendale Boulevards as Community Centers; and
10. Amend the Plan Text and General Plan Land Use Map to re-zone certain industrial properties in the Plan area to [Q] CM to limit noxious uses and to impose requirements that improve compatibility between abutting residential and industrial uses; and
11. Amend the General Plan Land Use Map to change areas designated as Neighborhood and Office Commercial, Highway Oriented Commercial and Community Commercial to Neighborhood Commercial, General Commercial and Community Commercial, as shown on the attached Change Map and Matrix (Exhibits B and C, respectively).

**SILVER LAKE-ECHO PARK COMMUNITY PLAN UPDATE  
INITIAL STUDY CHECKLIST AND EXPLANATION ATTACHMENT**

The Silver Lake-Echo Park Community Plan Update program is intended to set land use goals, objectives, policies and programs for the Community Plan Area in accordance with Citywide land use goals and policies. The Plan further intends to allocate a distribution of land uses that serves the needs and accommodates the range of uses required by the community. It especially aims to allow a dwelling unit capacity that will accommodate growth projected in the Plan area through the year 2010 as a means to preserve the Plan area's stable single and multiple family neighborhoods, in conformance with Citywide policy. This update generally aims to designate areas where growth and development can be concentrated, allowing a functional mix of residential and commercial development along designated Mixed Use Boulevards and in designated Neighborhood Districts and Community Centers where existing service and infrastructure can support such growth and permit an orderly and efficient pattern of land use development that serves the general public welfare and exhibits good zoning practice.

The following explains the potential impacts and mitigation of identified impacts of the proposed Community Plan Update as required by the California Environmental Quality Act of 1970.

**I AESTHETICS**

**c. *Substantially degrade the existing visual character or quality of the site and its surroundings? (Less than Significant Impact)***

A mixed use floor area ratio bonus is recommended in the Plan Map footnotes for designated areas which may result in increased floor area and height, subject to future discretionary actions. Permitting potential increases in floor area and height could alter existing views in the Plan area; however, in many cases natural topography and existing zoning that transitions from commercial frontage to multiple family residential and then to single family minimizes the impact of more intense mixed-use (commercial/ residential) development on abutting residential uses as well as on the views of abutting residential development. Community Plan Policies 2-3.1, 2-3.3, 2-4.1, 2-4.2 and 2-4.3 require new commercial development to be compatible with adjacent uses, character and scale. Policy 2-4.3 and associated programs further requires any project utilizing the mixed use floor area bonus to obtain discretionary approval, outlines the criteria under which the Plan supports such proposed mixed-use projects and requires decision-makers to find that proposed projects are compatible with surroundings and generally promote neighborhood character and identity. Since the proposed mixed use floor area bonus will require discretionary action (is not by-right), each project will undergo its own environmental review in which environmental impacts will be studied and appropriate mitigation measures will be imposed. The Plan recommends that Temple St. from Benton Way to Robinson St. be rezoned to the RAS 3 zone to allow by-right mixed use projects in this location identified as being particularly suited to this type of development, for purposes of encouraging demonstration projects and assessing the benefits of mixed-use development in the urban core. The change would affect an area, totaling 268,678 square feet or just over 6 acres. Given the modest size and the location (on transit-served corridors) of the areas, the impact is expected to be minimal, particularly as this land use is consistent with the General Plan and in and of itself deemed a mitigation for population growth per the General Plan Framework Environmental Impact Report. In addition, existing commercial zoning already permits residential uses at the R4 density and mixed use.

Community Plan land use policies that promote mixed-use development in transit-served corridors in the urban core are consistent with and promote Citywide planning goals and policies outlined in the General Plan Framework (GPF) to preserve stable residential neighborhoods (GPF Goal 3B and Objective 3.5), concentrate development in identified Neighborhood Districts, Community Centers and Mixed Use Boulevards (GPF Objective 3.4, 3.8, 3.9 and 3.13) and allow for a mix of uses that will reduce vehicle trips and result in improved air quality (GPF Objective 3.2). Given the many goals that such a policy promotes, the concentration of new residential and commercial development along corridors that the public infrastructure and transportation system will support will help preserve character and integrity of surrounding stable single family and multiple family residential neighborhoods which do not have the transportation and public infrastructure due to the substandard nature of the existing public streets.

III AIR QUALITY

*The significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project result in:*

b. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Less than Significant Impact)*

The intensification of certain commercial corridors recommended in the proposed Plan may generate more traffic (see VI a.) but in the long term will help alleviate traffic and reduce vehicle trips by locating within walking distance neighborhood retail and services near residential development (Community Plan Policies 2-2.2 and 2-4.3), make more efficient use of land already served by public services, infrastructure and mass transit and create the kind of concentration of population that increasingly makes mass transit viable. The Sunset-Santa Monica Blvd. Corridor (encompassing the portion of Sunset Blvd. located in the Plan area) is already slated for Metropolitan Transportation Authority (MTA) RAPID Bus Service. Alvarado Street also meets the criteria as a Transit Priority Street Segment that will make it eligible for funding for various transit-related improvements. Other designated Mixed Use Boulevards and main thoroughfares in designated Neighborhood Districts and Community Centers may additionally become candidates for improved and expanded transit service as demand necessitates. Air Quality is also expected to improve as new development is encouraged to locate in the metropolitan area, allowing more people to reside in close proximity to employment centers such as Downtown Los Angeles and the Wilshire Boulevard corridor. It is consequently anticipated that potential adverse impacts to air quality will be mitigated by the implementation of General Plan Framework (GPF) land use policies that promote a distribution of land uses and development that concentrate new development in centers and mixed-use corridors, improving quality of life, conserving neighborhoods, reducing traffic congestion and improving air quality (GPF Goal 3A, Objective 3.2 and Objective 8.3). Additionally, Transportation Improvement Mitigation Program (TIMP) mitigation measures included as policies and programs in the Community Plan (Goals 10-14) and as mitigations under section XV of this document will further mitigate traffic impacts. Policy 2-4.3 and associated programs encourage mixed use along certain commercial corridors but also require any project utilizing a recommended mixed use floor area bonus to obtain discretionary approval. Since projects seeking to take advantage of recommended floor area bonuses for mixed use would only be permitted by a discretionary action, they would require a project-specific environmental review for which environmental impacts will be assessed and appropriate mitigations imposed. The Community Plan Update does not anticipate nor recommend any other intensification of commercial, industrial or residential uses.

c. *Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (ozone, carbon monoxide, & PM 10) under an applicable federal or state ambient air quality standard? (Less than Significant Impact)*

The Community Plan Area is located in the South Coast Air Basin (Basin), a non-attainment area for Federal Clean Air Standards (Standards). The South Coast Air Quality Management District and the State Air Resources Board have prepared a Clean Air Plan for the Basin which prescribes control measures in order to improve regional air quality to attain the Standards. Potential future, mobile Reactive Organic Gases (ROG), Nitrogen Oxide (No<sub>x</sub>), Sulfur Oxide (So<sub>x</sub>), and other air emissions are anticipated to be reduced through implementation of General Plan Framework (GPF) land use policies and the Transportation Improvement Mitigation Program (TIMP) mitigation measures included as policies and programs in the Community Plan (Goals 10-14) and as mitigations in Section XV of this document. These measures are all consistent with the Basin's Clean Air Plan.

The Community Plan land use policies are consistent with GPF goals (Objective 3.4, 3.8, 3.9 and 3.13) to designate Community Center, Neighborhood Districts and Mixed Use Boulevards where new development should locate and where intensification of development (mixed commercial/residential) along commercial corridors served by mass transit and located near employment centers promotes more efficient use of land and public services and infrastructure (Community Plan Policy 2-4.3). They also promote a mix of uses which encourage the development of new housing within walking distance of neighborhood-serving commercial uses, potentially contributing to a reduction in vehicle trips and pollution which could be caused by these trips (GPF Objective 3.2). Additionally, project-specific mitigation would continue to be achieved for projects requiring discretionary actions by Area and City Planning Commissions and Zoning Administrators. Future air emission levels are expected to be lower than

1990 air emissions.

**V CULTURAL RESOURCES:** would the project:

**a. Cause a substantial adverse change in significance of a historical resource as defined in state CEQA Section 15064.5 (Less than Significant Impact)**

The proposed Plan may potentially have impacts on historic resources in certain commercial areas where a proposed mixed use floor area bonus applies. In this Plan area, most designated Historic-Cultural Monuments are located in residential areas and would not be affected by the proposed mixed use floor area bonus recommended exclusively on specific commercial corridors. Policies and programs which promote more intensive uses in specified commercial areas and corridors (Community Centers and Mixed Use Boulevards) could result in the alteration or demolition of existing structures if developers choose to take advantage of a proposed mixed use floor area bonus. The areas affected by the recommended mixed use floor area bonus are generally limited to auto-oriented commercial corridors where virtually no designated monuments are located and significant architecture is minimal. Community Plan policies furthermore advocate and promote preservation of valuable historic, cultural and architectural context and resources of the Community Plan Area. Community Plan Policies 2-3.1, 2-3.3, 2-4.1, 2-4.2 and 2-4.3 require new commercial and mixed-use development to be compatible with adjacent uses, character and scale and outline the criteria under which more intense mixed-use projects are supported by the Plan. Individual developments seeking to take advantage of recommended mixed use floor area bonuses will be required to complete an environmental assessment in which the projects' individual and cumulative environmental impacts will have to be identified and mitigated, including impacts on historic resources (Community Plan Policy 2-4.3).

Outside of affected commercial corridors, the Plan supports preservation, recommending, among other preservation measures, a study area in Echo Park (Community Plan Policy 16-1.1) to explore the need for future historic preservation overlay zones or other tools and measures to preserve architectural resources and conserve unique neighborhood characteristics and features. The Plan moreover includes exhibits listing the location of designated Historic-Cultural Monuments (Appendix A) and significant Modern-era structures in the Plan area (Appendix B) and encourages that independent historic status be sought for these structures. The Plan identifies and inventories the Plan area's public staircases (Exhibit I), proposes the designation of staircases as a public facilities zone and recommends the preparation of a "streetscape" plan where goals, policies and programs can be established to ensure the preservation of the public staircases that contribute to the unique character and history of the Plan Area.

**VI GEOLOGY AND SOILS**

**a. i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology special Publication 42. (Less Than Significant Impact)**

As is common in the Southern California region, there will be continued risks of human injury and property damage because of potential regional earthquakes. No Alquist-Priolo Special Study Zone Areas, designated by the State of California Division of Mines and Geology, are located within the Plan area. However, the Santa Monica Fault, a potentially active fault, is thought to run more-or less parallel to and south of Los Feliz Boulevard from the vicinity of La Brea/Fountain Avenues to the vicinity of Hyperion Avenue/Riverside Drive. Another potentially active fault is thought to run through the northeast portion of Griffith Park.

**ii Strong seismic ground shaking? (Less Than Significant Impact)**

Structures built in the Plan area would continue to be subject to City Department of Building and Safety standards and regulations, which pertain to the structural integrity of buildings. While some potential exists for geologic hazards due to geologic and seismic conditions in the Plan area, the Plan proposes no changes that would significantly alter these conditions. The Plan implementation would not be anticipated to result in the exposure of people or property to significantly increased geologic hazards.

*iii Seismic-related ground failure, including liquefaction? (Less Than Significant Impact)*

Certain portions of the Plan area—Elysian Valley, between the Golden State Freeway and the Los Angeles River, the area of the Silver Lake Reservoir and neighborhoods surrounding the reservoir on the east and land along Silver Lake Boulevard going south and west from the Reservoir to Temple St.—are in state-identified liquefaction areas. Structures built in liquefaction or exposed erosive soil areas would continue to be required by the City Department of Building and Safety to be engineered to resist liquefaction damage, include erosion control measures and be subject to individual soil stability studies prior to the approval of individual project development plans.

*iv Landslides (Less Than Significant Impact)*

Most of the Plan area with the exception of Elysian Valley is located in a designated hillside area. There is a landslide threat in a localized site in Elysian Park (5 -100 acre bedrock landslide site) in the southeast corner of the Plan area. The Plan area is an urbanized area and the majority of the land is developed; land use policies in this proposed update would provide the potential to intensify development conservatively, encouraging more efficient use of land through mixed-use development and the infill and reuse of vacant or underused land near the urban core and taking advantage of existing infrastructure, services and transit opportunities, predominantly in the flatter commercial corridors. The Plan proposes no significant land use changes in hillside areas that would result in changes in topography or surface relief features beyond what would occur under the existing plan. Infill development of the relatively few vacant hillside lots will have to comply with Department of Building and Safety building and grading requirements. Further, more effective seismic building standards help alleviate any potential upset as new growth occurs.

**XII POPULATION AND HOUSING**

*a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)? (Potentially Significant Unless Mitigation Incorporated).*

The proposed Plan increases the potential intensity of development and potentially increases the capacity of housing along designated Mixed Use Boulevards and in designated Neighborhood Districts and Community Centers through incentives such as the mixed use floor area ratio bonus (Community Plan Policy 2-4.3 and Plan Map footnotes). These Community Plan objectives are consistent with the General Plan Framework Element, which offers as mitigations for population growth, the following policies:

- Policy 3.3.1 expresses City policy to accommodate projected population and employment growth and to ensure that it is evenly distributed throughout the City;
- Policy 3.4.1 encourages conservation of existing stable residential neighborhoods by directing new development in centers (Neighborhood Districts, Community Centers and Regional Centers) and along major boulevards served by transit.
- Policy 3.13.1 encourages mixed-use along identified Mixed Use Boulevards to add housing capacity and intensify development along major corridors;
- Policy 4.1.2 encourages location of affordable housing Citywide to avoid overconcentration in certain areas;
- Policy 4.1.5 requires monitoring of housing development to ensure distribution Citywide and the generation of unit type and cost that is accessible to all income levels;
- The Framework also expresses intent to offer incentives for affordable housing in mixed-use developments (Policy 4.1.2) and to develop family-sized units to reduce overcrowding (Policy 4.1.4), to offer priorities in permit processing for low and very-low income housing developments (4.1.6), to promote adaptive reuse of structures for housing by reducing regulatory barriers and creating incentives (4.1.8), and generally to locate new multiple family near transit or in transit corridors (obj. 4.2)

In conformance with the above policies found in the General Plan Framework Element, the proposed project aims to concentrate development in those areas that have the infrastructure to support growth and that have access to

mass transit.

This policy to concentrate development at such locations, especially underutilized commercial corridors, will implement several Citywide goals, including to preserve the character and identity of stable single and multiple family neighborhoods and reduce vehicle trips. The Plan encourages infill and more efficient use of either vacant or underused commercial land to absorb growth. Doing so reduces the likelihood that single family neighborhoods will have to be upzoned in the future to accommodate projected population growth. Creating functional mixed-use neighborhoods will not only help reduce the number of vehicle trips residents will make by providing day-to-day neighborhood retail and services within walking distances but will also create population centers that make mass transit more feasible and economical. Fewer vehicle trips will alleviate traffic congestion, improve air quality (permitting the City to comply with state and federal air quality legislation and standards), improve quality of life and promote sustainability. The potential increase in dwelling units resulting from proposed land use policies may additionally increase housing supply and consequently help contain housing costs and the displacement of low-income residents. (The Housing element cites many studies and data that document the unavailability of low-income units in the City, attributable, in part to the reduced level of building activity over a number of years, that has not allowed housing supply to keep up with demand.) Furthermore each individual development proposal, particularly where recommended mixed use floor area bonuses are sought, will be required to complete an environmental assessment in which the projects' individual and cumulative environmental impacts will have to be identified and mitigated (Community Plan Policy 2-4.3). The Plan recommends that Temple St. from Benton Way to Robinson St. be re-zoned to the RAS 3 zone to allow by-right mixed use projects in locations identified as particularly suited to this type of development, for purposes of encouraging demonstration projects and assessing the benefits of mixed-use development in the urban core. The change would affect an area, totalling 268,678 square feet or just over 6 acres. Given the modest size and the location (on transit-served corridors) of the areas, their impact is expected to be minimal, particularly as this land use is consistent with the General Plan and in and of itself deemed a mitigation for population growth per the GPF Environmental Impact Report. It is thus anticipated that potential adverse impacts of any resulting intensification of development are mitigated by the implementation of the General Plan Framework (GPF) land use policies, the Housing Element and transportation mitigations recommended in the Silver Lake-Echo Park Community Plan Update Transportation Improvement Mitigation Program (TIMP), included as mitigations in the Community Plan (Goals 10-14) and in Section XV of this document.

### XIII Public Services

*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services.*

a. ***Fire protection? (Potentially Significant Unless Mitigations Incorporated).***

Fire protection *may* potentially be impacted if market demand and economic viability result in the type of mixed-use development proposed in the Plan and encouraged through various incentives provided by the proposed Community Plan Update (Community Plan Policy 2-4.3) or implemented by future Supplemental Use District overlay zones.

Mandatory environmental review of individual proposed projects will assess individual and cumulative impacts and impose mitigations. Furthermore the cost of upgrading services in already-developed areas is typically more economical than in undeveloped areas where little or no infrastructure and services exist. Encouraging infill rather than consumption and development of undeveloped outlying areas will ultimately improve quality of life and sustainability (as discussed in Section 8 Population).

Community Plan Objective 9-1 and Policy 9-1.1 ensure that fire facilities and protective services are sufficient for existing and future population and land uses and require review of and coordination with the Fire Department for significant developments and General Plan Amendments to assess and plan for impacts on service demands. Additionally, the General Plan Framework Environmental Impact Report (EIR) finds that land use patterns consistent with GPF are in themselves mitigations by virtue of their promotion of the efficient use of land and

public resources. Consequently development consistent with its land use policies such as those found in the Community Plan lessen impact on public services (such as fire protection, police protection and schools). Another mitigation requires monitoring of infrastructure and public service capacities. Policy 3.3.2 of the General Plan Framework directs monitoring of infrastructure and public service capacities to determine the need and to establish programs for infrastructure and public service investments to accommodate development in growth areas. The Framework EIR additionally (also Policy 3.3.2) conditions new development on the ability to provide services and infrastructure and directs the establishment of programs for infrastructure and public service improvements to accommodate additional development by type, amount and location. GPF Policy 7.10.1, also encourages focusing available implementation resources for public services and infrastructure on areas targeted for growth, as recommended by the Community Plan policies which encourage mixed use in centers and along designated boulevards, to ensure that infrastructure and services keep pace with growth. And finally GPF Policies 9.17.4 and 9.18.1 require that discretionary actions take into consideration Fire Department concerns about the provision of fire and emergency services.

**b. Police Protection? (Potentially Significant Unless Mitigations Incorporated)**

Police protection *may* potentially need to be upgraded if market demand and economic viability result in the type of mixed-use development proposed in the Plan and encouraged through various incentives provided by the proposed Community Plan Update or implemented by future Supplemental Use District overlays zones.

Mandatory environmental review of individual proposed projects will assess individual and cumulative impacts and impose mitigations. Furthermore the cost of upgrading services in already-developed areas is typically more economical than in undeveloped areas where little or no infrastructure and services exist. Encouraging infill rather than consumption and development of undeveloped outlying areas will ultimately improve quality of life and sustainability (as discussed in Section 8 Population).

Community Plan Objective 8-1 and Policy 8-1.1 ensures that protective services are sufficient for existing and future population and land uses and require review of and coordination with the Police Department for significant developments and General Plan Amendments to assess and plan for impacts on service demands. Additionally, the General Plan Framework Environmental Impact Report (EIR) finds that land use patterns consistent with GPF are in themselves mitigations by virtue of their promotion of the efficient use of land and public resources. Consequently development consistent with its land use policies such as those found in the Community Plan lessen impact on public services (such as fire protection, police protection and schools). Another mitigation requires monitoring of infrastructure and public service capacities. Policy 3.3.2 of the General Plan Framework directs monitoring of infrastructure and public service capacities to determine the need and to establish programs for infrastructure and public service investments to accommodate development in growth areas. The Framework EIR additionally (also Policy 3.3.2) conditions new development on the ability to provide services and infrastructure and directs the establishment of programs for infrastructure and public service improvements to accommodate additional development by type, amount and location. Policy 7.10.1, also encourages focusing available implementation resources for public services and infrastructure on areas targeted for growth, as recommended by the Community Plan policies which encourage mixed use in centers and along designated boulevards, to ensure that infrastructure and services keep pace with growth. Policy 9.14.1 through 9.15.7 address the need to identify and monitor conditions that would require additional police services and facilities.

**c. Schools? (Potentially Significant Unless Mitigations Incorporated)**

Community Plan Policies 6-1.1 and 6-1.2 and the General Plan Framework both encourage a monitoring program to assess the impact of land use on public services, including schools, through policies guiding site selection and streamlining of the development process. The Community Plan also encourages the location of schools in community centers and as a part of joint-use, mixed-use developments in areas served by transit. Community Plan policies that create land use patterns that support more functional community centers and mixed use boulevards help support these broader Citywide General Plan objectives.

All new residential and commercial projects are required to pay school fees which are assessed at the time that a building permit is issued. Combined with current bond funding programs of the Los Angeles Unified School

District (LAUSD) (already financing a large-scale, District-wide new construction program), funds will be available to develop new or expand existing schools to keep pace with any population expansion resulting from the Plan update.

d. ***Other governmental services (including roads)? (Potentially Significant Unless Mitigations Incorporated)***

Fire protection, police protection, schools, parks and other public services *may* potentially need to be upgraded if market demand and economic viability result in the type of mixed-use development proposed in the Plan and encouraged through various incentives provided by the proposed Community Plan Update or implemented by future Supplemental Use District overlays zones.

Discretionary review and mandatory environmental clearance of individual proposed projects seeking a mixed use floor area bonus will ensure that individual and cumulative impacts are assessed and appropriate mitigations imposed (Community Plan Policy 2-4.3). The Plan recommends that Temple St. from Benton Way to Robinson St. be re-zoned to the RAS 3 zone to allow by-right mixed use projects in locations identified as particularly suited to this type of development, for purposes of encouraging demonstration projects and assessing the benefits of mixed-use development in the urban core. The change would affect an area, totaling 268,678 square feet or just over 6 acres. Given the modest size and the location (on transit-served corridors) of the areas, their impact is expected to be minimal, particularly as this land use is consistent with the General Plan and in and of itself deemed a mitigation for population growth per the GPF Environmental Impact Report. Furthermore the cost of upgrading services in already-developed areas is typically more economical than in undeveloped areas where little or no infrastructure and services exist. Encouraging infill rather than consumption and development of undeveloped outlying areas will ultimately improve quality of life and sustainability (as discussed in Section 8 Population).

In many cases existing regulations and fees including special assessment districts, Quimby fees and school fees, already require new development to pay for its share of impact on public services, which may, effectively allow new development to finance improvements to services and infrastructure that might not otherwise occur in the urban core.

Community Plan Goals 10-14 incorporate mitigations measures for impacts on City streets and transportation facilities, through transportation improvements identified in the Transportation Impact Mitigation Program completed for the Community Plan Area (Final TIMP dated June 2003), which also aims to enhance circulation within the Community Plan area through a combination of street and freeway improvements and mass transit and non-motorized transit enhancement and options as well as land use patterns that reduce single occupant vehicle trips and make public investments in transit systems cost effective.

d. ***Parks? (Potentially Significant Unless Mitigations Incorporated)***

The proposed Plan mitigates potential impacts on parks, open space and recreational facilities by encouraging the preservation and acquisition of parkland and strategies to develop greenways that link existing and future open spaces (Community Plan Goals 4 and 5). In an effort to restore the Los Angeles River (just outside of the boundaries of the Plan area) to a more natural state and to improve it as a recreational resource, parcels of land have been purchased by land trusts and other private nonprofit organizations and developed (or with future intent to develop) as open space and parks for public use. The proposed Plan recommends Plan Amendments and Zone Changes to designate and rezone these properties as open space to ensure their preservation for this use (Community Plan 5-1.2 and related programs). The Community Plan (Community Plan Policy 4-1.4 and Chapter 5 guidelines) redesignates streets to enable the future implementation of the Silver Lake Reservoir Master Plan (SLRMP) which expands its potential as a recreational resource in the community and also incorporates SLRMP gateway, streetscape, landscape etc. guidelines for enhancing the public realm. The Plan also incorporates policies to encourage the City to acquire land. The Plan also requires decision makers to condition approval of projects on providing public access and rights-of-way on properties that would complete greenways or link major parks and open space, particularly linkages between Elysian Park and Griffith Park, thus promoting Citywide policies. The Plan recognizes the existing public staircases as potentially integral links in greenways and pedestrian paths and as open space and recreational facilities. It additionally recommends that the staircases be designated public facility and that a "streetscape" plan be developed to integrate the staircases in the larger

recreational and open space network as a means of expanding the open space and recreational facilities in the Plan area's urban environment.

The GPF Policy 9.23.3 promotes joint-use agreements with the LAUSD to contribute to the availability of recreational facilities and the Framework EIR also includes as mitigation measures (many promoted the land use policies in the proposed Plan) the use of public school playgrounds as parks; to replace asphalt areas with turf play fields; to evaluate public school playground share-use potential for after-school hours, holidays, school breaks and summer recreation programs; to develop small urban parks and open spaces within mixed-use developments (GPF 3.13.6) and to acquire additional City and private properties for recreation uses. The Community Plan land use policies, such as those stated above (Community Plan Goals 4 and 5 and Policies 2-1.1 and 2-4.3), mitigate the potential impacts of proposed land use policies by implementing and supporting many of these Citywide objectives.

**XV Transportation/Circulation**

- a. *Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to ratio capacity on roads, or congestion at intersections. (Potentially Significant Unless Mitigations Incorporated)*

The potential intensification of development along designated Mixed Use Boulevards and Community Centers may result in some increase in traffic. However, encouraging mixed-use development where neighborhood retail and services are located within walking distance of new and existing residential development will reduce vehicle trips and mitigate traffic impacts, as will encouraging infill development along major bus routes in the urban core and proximate to employment centers such as Downtown Los Angeles and the Wilshire Corridor (Community Plan Policy 2-4.3) and preserving and enhancing the pedestrian environment (Community Plan Goal 2, particularly Policies 2-2.1 and 2-2.2). These Community Plan policies promote land use patterns supported by the Citywide General Plan Framework (Chapter 8, particularly Objectives 8.3 to support development in identified neighborhood districts, community centers and mixed use boulevards and 8.4 to maintain pedestrian-oriented environments). These policies are additionally consistent with the City's Land Use/Transportation Policy and Transportation Element, which in and of themselves mitigate the effects on transportation and circulation by encouraging a pattern of development that minimizes auto dependency.

A Transportation Improvement Mitigation Program (TIMP) has been completed which analyzes impacts of the proposed Plan on traffic and circulation based on 2010 population and employment forecasts. The TIMP makes recommendations for transportation, mass transit and nonmotorized transportation programs and improvements that will cumulatively maintain acceptable levels of service in street circulation and provide alternative transportation opportunities that will accommodate projected growth, mitigating potential adverse impacts on transportation and circulation. Implementation of TIMP recommendations will mitigate traffic impacts resulting from land use patterns proposed in the Plan.

The following mitigations, among others, are incorporated in the Community Plan under Goals 10-14. The streets that are either being designated as Mixed Use Boulevards or which are main thoroughfares in designated Community Centers have been identified in part because they have appropriate levels of transit service and can accommodate growth. Sunset Boulevard, designated in the Transportation Element as a Transit Priority Street is slated to receive RAPID Bus Service in the next phase of implementation, which will mitigate potential impact on the street system created by new development. Alvarado Street also meets the criteria for a Transit Priority Street Segment which entitles it to funding for various transit-related improvements. Two transportation projects, The Glendale Boulevard Corridor Improvement Project and Glendale Freeway Terminus project are intended to alleviate long-standing traffic problems, also mitigating potential impacts of future development. Furthermore development along the proposed Sunset Boulevard Mixed Use Boulevard will provide a mix of uses within walking distance of residential and commercial development on Sunset Blvd., surrounding residential neighborhoods and potentially concentrate new residential development in close proximity to major employment centers and access to transit. In addition the land use patterns promoted by the Community Plan and the transportation improvements described above, a variety of regional freeway improvements and enhanced bikeway facilities, particularly along the Los Angeles River, collectively have been found to mitigate the impacts of infill development that might result

from Community Plan land use policies. Following is a list of transportation mitigations recommended in the TIMP:

1. Provide Metro Rapid Bus service on the Santa Monica-Sunset Boulevard corridor from Union Station to Downtown Santa Monica as part of the planned Phase II implementation of Metro Rapid Bus service expected by 2010.
2. Establish "DASH" shuttles to transport residents from hillside neighborhoods to centers and nearby rail stations, especially from a) the residential areas to Chinatown with access to the Gold Line to Pasadena, the City's transit hub, Union Station, and beyond to Downtown and b) to link residential areas with Community Centers and nearby Red Line stations.
3. Require Transportation Demand Management (transit use, modified work schedule, van/car pools, telecommuting, etc.) programs as a condition of approval of larger developments.
4. Implement the second phase of signalization improvements called Adaptive Traffic Control System which is expected to add a 3% increase in roadway capacity in the Plan area.
5. Make physical and operational improvements to several intersections, including: Glendale Blvd./Alvarado St. (part of the Glendale Boulevard Improvement Corridor Project), Sunset Blvd./Hollywood Blvd./Hillhurst Ave. and Silver Lake Blvd./Temple St./Beverly Blvd./Virgil Avenue, two of which (the later two) lie just outside the area and contribute to traffic congestion and delays.
6. Implement recommended street redesignations (see Plan text).
7. Implement a variety of regional capital improvements that would alleviate the impact of commuter traffic on and improve internal circulation in the Plan area as follows:
  - a. Glendale Freeway Terminus improvements
  - b. Improvements to the I-5/Glendale Freeway interchange (a "priority freeway improvement project" earmarked to be funded by 2010)
  - c. Construction of the Alameda Street By-Pass, also a high priority project
  - d. Improvement to the Route 110/I-5 connection between the two freeways
  - e. Addition of auxiliary/merge lane between I-110 and Glendale Blvd. to facilitate traffic connecting from the I-110 to the I-101
  - f. Potentially signalize the intersection with Riverside Dr. of the southbound I-5 off-ramp at Glendale Blvd.
8. Develop and implement Neighborhood Protection Plans for areas that are or will be impacted by changes, namely, Solano Canyon and Echo Park, east and west of Glendale Blvd. from Scott Ave. to Berkeley Ave and west to Benton Way.
9. Implement and develop nonmotorized transportation facilities including pedestrian friendly streets, particularly in centers and on designated Mixed Use Boulevards, sidewalks in pedestrian-oriented areas and planned bicycle facilities, including closure of identified gaps in the planned bikeway network, namely, Silver Lake Blvd. south of Sunset Blvd. to make a connection with bicycle facilities on First Street.

f. ***Would the project result in inadequate parking capacity? (Potentially Significant Unless Mitigations Incorporated)***

Potential infill development along designated Mixed Use Boulevards and in Community Centers may impact demand for parking. Mixed-use projects will have to meet parking standards for their residential use and appropriate parking ratios for the commercial uses in the commercial component. While shared-use and mixed-use parking reductions are encouraged, the proposed mixed use policies and Mixed Use Boulevard designation for Sunset Boulevard encourages the construction and recommends a possible funding mechanism for centralized parking facilities that would mitigate any parking reductions that individual projects would obtain as a result of

their proximity to transit stations, major bus routes, centralized parking facilities and other shared parking arrangements or development incentives permitting parking reductions (Community Plan Goal 15). Furthermore many of the policies promoting mixed use and more efficient use of existing transit-served commercial corridors and centers promote many of the GPF goals and policies that encourage pedestrian-oriented, mixed-use development that reduces auto dependency and enables residents to live within walking distance of basic goods and services, and are consistent with the City's Land Use/Transportation Policy, which are intended mitigations to impact on parking availability.

The TIMP includes mitigation measures that involve increased transit service. The above mitigations, combined with recommended transit improvements and an enhanced pedestrian environment, foster conditions that will reduce vehicle trips and alleviate potential parking problems. In addition parking impacts for residential and mixed-use projects entitled through required discretionary approvals for future mixed use projects will be required to mitigate individual projects impacts; for example, guest parking at a ratio of 1/4 to 1/2 space per dwelling unit is imposed on projects in designated parking congestion areas.

**XVII Mandatory Findings of Significance**

**b. *Does the project have impacts which are individually limited, but cumulatively considerable? (Potentially Significant Unless Mitigations Incorporated)***

Development as envisioned through policy language, zone changes and development incentives could result in more intense development of designated Mixed Use Boulevards and designated Neighborhood Districts and Community Centers which may have a cumulative impact. However, the mitigations noted in this document, especially in the Community Plan's TIMP, will ensure that impacts will be mitigated to the point of insignificance. Generally the proposed Plan conforms to Citywide policy and is consistent with and implements the Citywide General Plan Framework, the Housing Element, Transportation Element and Land Use/Transportation policy. Designated Mixed Use Boulevards and Neighborhood Districts and Community Centers have been identified in the Framework as appropriate areas where growth should be concentrated and where existing services and infrastructure could support such growth in a way that exhibits sound planning, houses projected population growth and allows an adequate distribution of land for the various uses required by the community.



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**DETERMINATION (To be completed by Lead Agency)**

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**On the basis of this initial evaluation:**

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I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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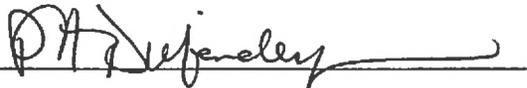
I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

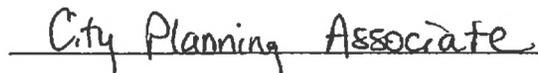
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I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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SIGNATURE

  
TITLE

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**EVALUATION OF ENVIRONMENTAL IMPACTS:**

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).
- 5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of

and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated
- 7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.
- 9) The explanation of each issue should identify:
- a) The significance criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

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### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> Aesthetics         | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Agricultural Resources        | <input type="checkbox"/> Hydrology/Water Quality       | <input type="checkbox"/> Recreation                                    |
| <input checked="" type="checkbox"/> Air Quality        | <input type="checkbox"/> Land Use/Planning             | <input checked="" type="checkbox"/> Transportation/Traffic             |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Utilities/Service Systems                     |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise                         | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Geology/Soils      | <input checked="" type="checkbox"/> Population/Housing |  |

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### INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

#### BACKGROUND

PROPOSER NAME	PHONE NUMBER
City of Los Angeles/Department of City Planning	213/978-1478
PROPOSER ADDRESS	
200 North Spring St., Rm. 667, Los Angeles, 90012	
AGENCY REQUIRING CHECKLIST	DATE SUBMITTED
Department of City Planning	04/14/03
PROPOSAL NAME (if applicable)	
Silver Lake-Echo Park Community Plan Update	

**ENVIRONMENTAL IMPACTS**

(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**I. AESTHETICS.** Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**II. AGRICULTURAL RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict the existing zoning for agricultural use, or a Williamson Act Contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**III. AIR QUALITY.** The significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project result in:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with or obstruct implementation of the SCAQMD or Congestion Management Plan?                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (ozone, carbon monoxide, & PM 10) under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**IV. BIOLOGICAL RESOURCES.** Would the project:

a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**V. CULTURAL RESOURCES:** Would the project:

a. Cause a substantial adverse change in significance of a historical resource as defined in State CEQA §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VI. GEOLOGY AND SOILS.** Would the project:

a. Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving :

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VII. HAZARDS AND HAZARDOUS MATERIALS.**

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**VIII. HYDROLOGY AND WATER QUALITY.** Would the proposal result in:

a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
g. Place housing within a 100-year flood plain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
h. Place within a 100-year flood plain structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

**IX. LAND USE AND PLANNING.** Would the project:

a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b. Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

**X. MINERAL RESOURCES.** Would the project:

a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓

**XI. NOISE.** Would the project:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XII. POPULATION AND HOUSING.** Would the project:

a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XIII. PUBLIC SERVICES.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Other governmental services (including roads)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### XIV. RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### XV. TRANSPORTATION/CIRCULATION. Would the project:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to ratio capacity on roads, or congestion at intersections)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Result in inadequate parking capacity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XVI. UTILITIES. Would the project:**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE.**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**DISCUSSION OF THE ENVIRONMENTAL EVALUATION** (Attach additional sheets if necessary)

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This environmental impact assessment utilized official City of Los Angeles and other official government source reference materials related to various environmental impact categories (e.g., Hydrology, Air Quality, Biology, Cultural Resources, etc.). The State of California Department of Conservation, Division of Mines and Geology - Seismic Hazard Maps and reports, were used to identify potential future significant seismic events; including probable magnitudes, liquefaction and landslide hazards. Both the Initial Study Checklist and companion Worksheet, in conjunction with the City of Los Angeles's Adopted Thresholds Guide, were used to reach reasonable conclusions on environmental impacts as mandated under the California Environmental Quality Act.

The project as identified in the project description may cause potentially significant impacts on the environment without mitigation. Therefore, this environmental analysis concludes that Mitigated Negative Declaration shall be issued to avoid and mitigate all potential adverse impacts on the environment by the imposition of mitigation measures and/or conditions contained and expressed in this document; the environmental case file known as ENV-2003-7281-MND and the associated City Plan Case No. 1995-0357-CPU. Finally, based on the fact that these impacts can be feasibly mitigated to less than significant, and based on the findings and thresholds for Mandatory Findings of Significance as described in the California Environmental Quality Act, Section 15065, the overall project impact(s) on the environment (after mitigation) will not:

- Substantially degrade environmental quality.
- Substantially reduce fish or wildlife habitat
- Cause a fish or wildlife habitat to drop below self sustaining levels.
- Threaten to eliminate a plant or animal community.
- Reduce number or restrict range of a rare, threatened, or endangered species
- Eliminate important examples of major periods of California history or prehistory.
- Achieve short-term goals to the disadvantage of long-term goals.
- Result in environmental effects that are individually limited but cumulatively considerable.
- Result in environmental effects that will cause substantial adverse effects on human beings.

**ADDITIONAL INFORMATION:**

This document was prepared in compliance with Public Resources Code section 21082.2 and CEQA Guidelines sections 15063, 15064, 15065, 15070, and 15071.

All supporting documents and references are contained in the Environmental Case File referenced above and may be viewed in the Community Planning Bureau, Room 667, City Hall.

For City information, addresses and phone numbers: visit the City website at [www.lacity.org](http://www.lacity.org); City Planning - and Zoning Information Mapping Automated System (ZIMAS) [www.lacity.org/pln](http://www.lacity.org/pln) or the Community Planning Bureau, City Hall, 2000 N. Spring St., Room 667.

Seismic Hazard Maps - <http://gmw.consrv.ca.gov/shmp/>

Engineering/Infrastructure/Topographic Maps/parcel Information - <http://boemaps.eng.ci.la.ca.us/index01.htm> or City's main website under the heading "Navigate LA".

PREPARED BY	TITLE	TELEPHONE #	DATE
Patricia Diefenderfer	City Planning Associate	213/978-1478	10/10/03

## FISH AND GAME FEE (AB 3158)

Based on the Initial Study prepared by the Environmental Staff, it is recommended that the project be:

Exempt from the Fish and Game Fee\*

Not Exempt from the Fish and Game Fee

Items checked on the Initial Study Checklist (circle when appropriate):

AIR QUALITY: III a III b III c III d

BIOLOGICAL RESOURCES: IV a IV b IV c IV d IV e IV f

GEOLOGY AND SOILS: VI ai-aiv VI b VI c IV d VI e

HAZARDS & HAZARDOUS MATERIALS: VII a VII b VII c VII d VII e VII f VII g VII h

HYDROLOGY & WATER QUALITY: VIII a VIII b VIII c VIII d VIII e VIII f VIII g VIII h VIII i

VIII j

MANDATORY FINDINGS: XVII a XVII b XVII c

\* A Certificate of Fee Exemption will be prepared by the environmental staff

TO THE COUNCIL OF THE  
CITY OF LOS ANGELES

FILE NO. 05-0876

Your

PLANNING AND LAND USE MANAGEMENT

Committee

reports as follows:

	<u>Yes</u>	<u>No</u>
Public Comments	<u>XX</u>	—

PLANNING AND LAND USE MANAGEMENT COMMITTEE REPORT and ORDINANCES FIRST CONSIDERATION relative to various zone changes for the Silver Lake-Echo Park-Elysian Valley Community Plan Update.

Recommendations for Council action, SUBJECT TO THE APPROVAL OF THE MAYOR:

1. FIND that Mitigated Negative Declaration No. ENV 2003-7281 MND, was prepared for the Community Plan Update which analyzed the potential impacts of changes in Land Use policy, plan amendments and zone changes proposed by the plan update and that the Mitigated Negative Declaration reflects the independent judgment of the lead agency City of Los Angeles. (On August 11, 2004, City Council adopted Mitigated Negative Declaration [ENV 2003-7281 MND], plan amendments and zone changes within the Silver Lake - Echo Park-Elysian Valley Community Plan Area, and found that this action will not have a significant effect on the environment, pursuant to the City's Environmental Guidelines and in compliance with the California Environmental Quality Act. As a part of this action, Council adopted zone changes in concept, and instructed the Planning Department to prepare the necessary ordinances and zoning maps, under Council file No. 00-2217.)
2. ADOPT the FINDINGS of the Planning and Land Use Management Committee as the Findings of Council.
3. PRESENT and ADOPT the accompanying ORDINANCE amending Section 12.04 of the Los Angeles Municipal Code (LAMC) by changing the zones and zone boundaries shown upon portions of the zone map and made apart of Article 2, Chapter 1, of the LAMC, so that portions of the Zoning Map shall set forth the zones and height districts as shown on the Silver Lake Community Plan Update Ordinance Maps and the Table for Section 1, all which are attached to the Ordinance contained in Council file No. 05-0876.
4. PRESENT and ADOPT accompanying ORDINANCE, disapproved by the Director of Planning, amending Section 12.04 of the Los Angeles Municipal Code by changing the zones and zone boundaries shown upon portions of the zone map and made a part of Article 2, Chapter 1, of the LAMC, so that portions of the Zoning Map shall set forth the zones and height districts as shown on the Silver Lake-Echo Park-Elysian Valley Community Plan Update Ordinance Maps and the Table for Section 1, all which are attached to the Ordinance contained in Council file No. 05-0876, to include changes requested in Motions (LaBonge - Reyes) and (LaBonge - Garcetti- Reyes).
5. REQUEST the Planning Department to initiate a General Plan Amendment for the area shown on the exhibit attached to Motion (LaBonge - Garcetti - Reyes), changing the land use designation from Neighborhood Commercial to Low Density Residential and a corresponding Zone Change from C1-1VL (Limited Commercial Zone, Height District 1-Very Limited) to RD6-1XL (Restricted Density Multiple Dwelling Zone, Height District 1- Extra Limited), pursuant to Motion (LaBonge - Reyes - Garcetti).

CPC 1995-0357 CPU

6. INSTRUCT the Planning Department to conduct an analysis of potential housing units lost resulting from the reduction in maximum allowable densities and restricting building heights within the Subareas referenced above, pursuant to the above Motion; and to identify any impacts on the Housing Element and

**City housing production goals.**

7. **INSTRUCT** the Planning Department to identify other Subareas within the Silver Lake - Echo Park Community Plan area as well as the appropriate General Plan Amendments and corresponding zone changes to create the zoning capacity to absorb or compensate for the potential loss of housing units.
8. **INSTRUCT** the Planning Department to report on the housing impact analysis; and recommended General Plan Amendments and corresponding zone changes needed to compensate for lost housing units resulting from amendments, and report back to the Planning and Land Use Management Committee.

**Fiscal Impact Statement:** The Planning Department reports that there is no General Fund impact, as administrative costs are recovered through fees.

**Summary:**

At its meeting held June 1, 2005, the Planning and Land Use Management (PLUM) Committee recommended that Council approve the accompanying ordinance amending Section 12.04 of the Los Angeles Municipal Code by changing the zones and zone boundaries shown upon portions of the zone map and made apart of Article 2, Chapter 1, of the LAMC, so that portions of the Zoning Map shall set forth the zones and height districts as shown on the Silver Lake-Echo Park-Elysian Valley Community Plan Update Ordinance Maps and the Table for Section 1, all which are attached to the Ordinance contained in Council file No. 05-0876. (On August 11, 2004, City Council adopted Mitigated Negative Declaration [ENV 2003-7281 MND], plan amendments and zone changes within the Silver Lake-Echo Park-Elysian Valley Community Plan Area. As a part of this action, Council adopted zone changes in concept, and instructed the Planning Department to prepare the necessary ordinances and zoning maps, under Council file No. 00-2217.)

In addition, the Committee considered the May 11, 2005, Motions (LaBonge - Reyes) and (LaBonge - Garcetti-Reyes) referred by Council to the Planning and Land Use Management Committee requesting the following:

1. Motion (LaBonge - Reyes), instructing the Planning Department to prepare amendments to the Silver Lake-Echo Park-Elysian Valley Community Plan Update as follows:
  - a. ADD a new [Q] Condition to new Subareas 1a, and 4b, as shown on the exhibits attached to Motion (LaBonge - Reyes), to limit any residential development on commercially zoned property within these subareas to the R3 (Multiple Dwelling) density.
  - b. ADD a new [Q] Condition to certain commercial properties on Rowena Avenue (new Subarea 1a and existing Subarea 2), Glendale Boulevard (new Subareas 4a and 4b), Hyperion Avenue (new Subarea 31c) and Silver Lake Boulevard (Subarea 43a), as shown on exhibits attached to Motion (LaBonge -Reyes), limiting the height of structures to 30 feet.
  - c. **INSTRUCT** the Planning Department to conduct an analysis of potential housing units lost resulting from the reduction in maximum allowable densities and restricting building heights within the Subareas referenced above, pursuant to the above Motion; and to identify any impacts on the Housing Element and City housing production goals.
  - d. **INSTRUCT** the Planning Department to identify other Subareas within the Silver Lake - Echo Park-Elysian Valley Community Plan area as well as the appropriate General Plan Amendments and corresponding zone changes to create the zoning capacity to absorb or compensate for the potential loss of housing units.
  - e. **INSTRUCT** the Planning Department to present the requested housing impact analysis; and recommended General Plan Amendments and corresponding zone changes to compensate

for lost housing units back to the PLUM Committee as amended by PLUM Committee on June 1, 2005.

- 2. Motion (LaBonge - Garcetti - Reyes), instructing the Planning Department to prepare amendments to the Silver Lake-Echo Park-Elysian Valley Community Plan Update to delete the new Subarea 1b from the full zone change ordinance.

The Committee recommended approval of the Ordinances for the various zone changes to the Silver Lake-Echo Park-Elysian Valley Community Plan and findings, Recommendation Nos. 1, 2, and 3, and amendments as proposed in Motions (LaBonge - Reyes) and (LaBonge - Garcetti - Reyes), Recommendations Nos. 4 and 5 of this Committee report. In addition, the Committee requested that the Planning Department initiate a General Plan Amendment for the area shown on the exhibit attached to Motion (LaBonge - Garcetti - Reyes), changing the land use designation from Neighborhood Commercial to Low Density Residential and a corresponding Zone Change from C1-1VL (Limited Commercial Zone, Height District 1-Very Limited) to RD6-1XL (Restricted Density Multiple Dwelling Zone, Height District 1- Extra Limited), pursuant to Motion (LaBonge - Reyes - Garcetti) - see Recommendation No. 5. Also, the Committee, requested Planning Department to report back on housing issues contained in Recommendations Nos. 6, 7 and 8, of this Committee report ( The Chair of the Planning and Land Use Committee expressed some concerns related to potential housing impacts resulting from zone changes requested in Recommendation No. 4.)

Councilmember Tom LaBonge spoke in support of the amendments.

The Director of Planning in a report dated June 17, 2005, provided that, pursuant to City Charter Sections 558 and 559, he has reviewed the findings of the City Planning Commission's action taken relative to City Planning Case No. 1995-0357-CPU on April 8, 2004, and on behalf of the Commission, he disapproves the amendments contained in the Motions, and proposed ordinance implementing the request in the Motions (LaBonge - Reyes), and (LaBonge - Garcetti - Reyes), and recommends that they not be adopted insofar as they do not conform to the latest action of the City Planning Commission.

According to the Director of Planning, the proposed Ordinances and revised findings have been prepared in accordance with the plan amendments and zone changes within the Silver Lake- Echo Park-Elysian Valley Community Plan Area as approved by Council in concept on August 11, 2004, and as instructed in Motions (LaBonge - Reyes) and (LaBonge - Garcetti - Reyes), as recommended by the Planning and Land Use Management Committee for approval by Council.

Respectfully submitted,

PLANNING AND LAND USE MANAGEMENT COMMITTEE

*Ed Reyes*  
*Ann Weiss*

MEMBER VOTE  
REYES: YES  
CARDENAS: YES  
WEISS: YES

**REPT. ORDS &  
FINDINGS  
ADOPTED**

JUL 06 2005

**LOS ANGELES CITY COUNCIL**

**TO THE MAYOR FORTHWITH**

BG:ys  
6-8-05  
Enc: CPC 1995-0357 CPU  
Findings  
Ordinances  
CDs 1, 4 & 13  
#050876

**LOS ANGELES CITY PLANNING DEPARTMENT  
STAFF REPORT**

---

**EAST LOS ANGELES PLANNING COMMISSION**

**DATE:** March 24, 2004  
**TIME:** After 4:30 p.m.\*  
**PLACE:** Ramona Hall Community Center  
Main Hall, 4580 N. Figueroa St.  
Los Angeles, CA 90065

**PUBLIC HEARING COMPLETED:** October 20,  
2003

**CASE NO. CPC 1995-0357 CPU**

**CEQA:** ENV 2003-7281-MND

**Location:** The area generally bounded by Temple Street on the south, Hoover Street and Hyperion Avenues on the west, the Los Angeles River on the north and northeast and North Broadway, Lilac Terrace and Marview Avenue on the east. (As shown on Exhibit "C".)

**Council District:** 1, 4 and 13

**Plan Area:** Silver Lake-Echo Park

**Certified Neighborhood Councils:** Greater Echo Park Elysian; Silver Lake; Elysian Valley Riverside; Historic Cultural; Greater Griffith Park

**Plan Land Use:** Various

**Zone:** Various

**District Map:** Various

**PROJECT:** **Silver Lake-Echo Park Community Plan Update:** The Silver Lake-Echo Park Community Plan Update is intended to identify and refine outdated land use issues and inconsistent zoning, review policies, and programs, as well as revise and update the plan map and text.

**APPLICANT:** City of Los Angeles

**ACTION:** Review and Comment on the Proposed Silver Lake-Echo Park Community Plan Update (CPU), including plan amendments, zone changes and revisions to the plan text and map.

**CONTACT INFORMATION:** Ron Maben, City Planner, 213/978-1179  
Patricia Diefenderfer, Project Coordinator, 213/978-1478

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Exhibit "A" Proposed Resolution	and "D" Development Limitation Appendix
Exhibit "B" Proposed Plan Text	Exhibit "G" Proposed Street Redesignation Matrix
Exhibit "C" Proposed Land Use Change Map	Exhibit "H" Proposed General Plan Framework Matrix
Exhibit "D" Proposed Land Use Change Matrix	Exhibit "I" General Plan Land Use Map (Adopted Feb. 17, 1984)
Exhibit "E" Proposed Symbol Change Matrix	Exhibit "J" Public Facilities: Staircase Map (Informational)
Exhibit "F" Proposed [Q] Qualified Condition	Exhibit "K" Mitigated Negative Declaration, Case No. ENV-2003-7281 MND

**ADVICE TO PUBLIC:** \*The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Written communications may be mailed to the *Commission Secretariat, Room 532, City Hall, 200 North Spring Street, Los Angeles, CA 90012* [Phone No. (213) 978-1295]. While all written communications are given to the Commission for consideration, the initial packets are sent the week prior to the Commission's meeting date. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendaized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than three working days (72 hours) prior to the meeting by calling the Commission Secretariat at (213) 978-1295.

## Summary and Recommendations

### Background

The Silver Lake-Echo Park Community Plan was adopted on February 17, 1984. It was subsequently amended by actions related to the General Plan/Zoning Consistency in the late 1980s and early 1990s. The Silver Lake-Echo Park Community Plan Update program (CPU) is intended to update the land use goals and policies in the area to reflect the Citywide principles and objectives articulated in the City's General Plan Framework; to respond to changes and trends in land-use development in the area; and to promote a pattern of development that continues to allocate land for the variety of uses that are needed by the community. The updated Community Plan provides a vision for the location and pattern of future development in the community, promoting current planning policies and practices and incorporating policies, programs and amendments which contribute to the welfare and convenience of the community. The Community Plan Update includes plan amendments, zone changes and policy language changes to the text, where necessary and appropriate.

### Summary

The Silver Lake-Echo Park Community Plan Update Program (CPU) consists of General Plan Amendments and associated Zone Changes to the Silver Lake-Echo Park Community Plan. As per City Council instruction to the City Planning Department to update the community plans to reflect current planning policies and practices, the implementation of the CPU program includes plan amendments, zone changes and amendments to the plan text and plan map, in order to bring the plan up-to-date.

The Silver Lake-Echo Park Community Plan Update Program is designed to:

1. Remove language in the plan text (Exhibit B) which is inaccurate, obsolete or no longer valid in relation to current land use policies or City programs and add language to the text as needed to reflect current planning policies and practices and other changes in the Plan area.
2. Amend the Plan Land Use Map (Exhibit C) and related zone changes on 98 subareas in the community described in detail in the Land Use/Zone Change Matrix (Exhibit D) and the Symbol Change Matrix (Exhibit E). These amendments include:
  - A. Plan Amendments without zone changes to redesignate a number of commercial properties to land use categories that more accurately reflect their function within the community.
  - B. Plan Amendments with corresponding zone changes on commercial and industrial properties to promote uses and land use development patterns that are more compatible with their surroundings.
  - C. Zone changes to modify zones or to impose [Q] Conditions (as detailed in Exhibit F) that implement objectives and policies of the Plan text providing for more compatible development within zones in specific areas.
  - D. Plan Amendments and/or zone changes to implement the Public Facilities (PF) and Open

Space (OS) designations on either recently acquired public property or such properties not included in previous PF and OS ordinances.

- E. Symbol changes to reflect revision, additions and/or deletions to service systems, public facilities and other community amenities and resources such as public parks, fire stations, libraries, etc. (Exhibit D)
3. Legend changes on the General Plan Land Use Map (Exhibit C) which reflect several revised commercial land use categories and the addition of the newly adopted Residential/Accessory Services (RAS) Zone as a corresponding zone of the Plan's commercial designations and the Residential Zero Side Yard (RZ) Zone, as a corresponding zone of the Low Medium I Multiple Family Residential designation.
  4. Amend the General Plan Land Use Map (Exhibit C) with footnote changes which were added to provide descriptive and policy information.
  5. Amend the General Plan Land use Map (Exhibit C) and the Highways and Freeways Map of the Transportation Element of the General Plan to re-designate streets (as identified in Exhibit G) to classifications that are most compatible with current and future development patterns in the community.
  6. Amend the Citywide General Plan Framework to reflect refinements and modifications to the Community and Neighborhood Centers and Mixed Use Boulevards (as detailed in Exhibit H).

**ACTION RECOMMENDED BY STAFF:** That the East Los Angeles Area Planning Commission:

Review and comment on the proposed Community Plan Update for the Silver Lake-Echo Park Community Plan Area: including the plan text, plan amendments and zone changes as detailed in the Land Use Change Map, Land Use Change Matrix, Footnotes and [Q] Qualified Conditions. The comments of the Area Planning Commission will be provided to the City Planning Commission for their consideration.

**LOS ANGELES CITY PLANNING DEPARTMENT  
RECOMMENDATION REPORT**

---

**CITY PLANNING COMMISSION**

**DATE:** April 8, 2004  
**TIME:** After 9:30 a.m.\*  
**PLACE:** City Hall  
200 N. Spring Street, 10<sup>th</sup> floor  
Los Angeles, CA 90012

**PUBLIC HEARING COMPLETED:** October 20,  
2003

**LIMITED PUBLIC HEARING REQUIRED**

**CASE NO. CPC 1995-0357 CPU**

**CEQA:** ENV 2003-7281 MND

**Location:** The area generally bounded by Temple Street on the south, Hoover Street and Hyperion Avenues on the west, the Los Angeles River on the north and northeast and North Broadway, Lilac Terrace and Marview Avenue on the east. (As shown on attached map Exhibit "C")

**Council District:** 1, 4 and 13

**Plan Area:** Silver Lake-Echo Park

**Certified Neighborhood Councils:** Greater Echo Park Elysian; Silver Lake; Elysian Valley Riverside; Historic-Cultural and Greater Griffith Park

**Plan Land Use:** Various

**Zone:** Various

**District Map:** Various

**PROJECT:** **Silver Lake-Echo Park Community Plan Update:** Silver Lake-Echo Park Community Plan Update is intended to identify and refine outdated land use issues and inconsistent zoning, review policies, and programs, as well as revise and update the General Plan Land Use Map and Plan text.

**APPLICANT:** City of Los Angeles

**RECOMMENDATION:**

1. **Approve** the Staff Report as the Commission Report.
2. **Adopt** the Findings
3. **Approve and Recommend** that the Mayor approve and the City Council adopt the attached Silver Lake-Echo Park Plan Resolution, Silver Lake-Echo Park Plan Text, and Change map amending the Silver Lake-Echo Park Community Plan as part of the General Plan of the City of Los Angeles.
4. **Approve and Recommend** that the City Council adopt the re-zoning actions to effect changes of zone as identified on the Land Use Change Map (Exhibit C) and Land Use Change Matrix (Exhibit D).
5. **Adopt** the Mitigated Negative Declaration, Case No. ENV 2003-7281-MND, in its determination of approving the proposed Plan, and transmit the environmental clearance to the City Council for consideration and appropriate action

**CONTACT INFORMATION:** Ron Maben, City Planner (213) 978-1179  
Patricia Diefenderfer, Project Coordinator (213) 978-1478

**Attachments**

Recommendation to the City Planning Commission  
Findings  
Staff Report  
Exhibit "A" Proposed Resolution  
Exhibit "B" Proposed Plan Text  
Exhibit "C" Proposed Land Use Change Map  
Exhibit "D" Proposed Land Use Change Matrix  
Exhibit "E" Proposed Symbol Change Matrix  
Exhibit "F" Proposed [Q] Qualified Condition

and "D" Development Limitation Appendix  
Exhibit "G" Proposed Street Redesignation Matrix  
Exhibit "H" Proposed General Plan Framework Matrix  
Exhibit "I" General Plan Land Use Map (Adopted Feb. 17, 1984)  
Exhibit "J" Staircase Map (Informational)  
Exhibit "K" Mitigated Negative Declaration, Case No. ENV-2003-7281 MND

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## Summary

The Silver Lake-Echo Park Community Plan Update Program (CPU) consists of General Plan Amendments and associated Zone Changes to the Silver Lake-Echo Park Community Plan. The Silver Lake-Echo Park Community Plan was adopted on February 17, 1984 by the City Council. It was subsequently amended by several actions related to the General Plan/Zoning Consistency Program in the late 1980s and early 1990s. Since then, there have been Citywide policy changes and changes in local development patterns that are not reflected in the existing Silver Lake-Echo Park Community Plan. As per City Council instruction to the City Planning Department to update the community plans to reflect current planning policies and practices, the implementation of the Community Plan Update Program includes plan amendments, zone changes and amendments to the Plan text and Plan map in order to bring the Plan up-to-date.

The Silver Lake-Echo Park Community Plan Update Program is designed to:

1. Remove language in the Plan text (Exhibit B) which is inaccurate, obsolete or no longer valid in relation to current land use policies or City programs and add language to the text as needed to reflect current planning policies and practices and other changes to the Plan area.
2. Amend the Plan Land Use Map (Exhibit C) and related zone changes on 98 subareas in the community described in detail in the Land Use/Zone Change Matrix (Exhibit D) and the Symbol Change Matrix (Exhibit E). These amendments include:
  - A. Plan Amendments without zone changes to redesignate a number of commercial properties to land use categories that more accurately reflect their function within the community.
  - B. Plan Amendments with corresponding zone changes on commercial and industrial properties to promote uses and land use development patterns that are more compatible with their surroundings.
  - C. Zone changes to modify zones or to impose [Q] Qualified Conditions (as detailed in Exhibit F) that implement objectives and policies of the Plan text providing for more compatible development in specific areas.
  - D. Plan Amendments and/or zone changes to implement the Public Facilities (PF) and Open Space (OS) designations either on recently acquired public property or such properties not included in previous PF and OS ordinances.
  - E. Symbol changes to reflect revisions, additions and/or deletions to service systems, public facilities and other community amenities and resources, such as public parks, fire stations, libraries, etc. (Exhibit E)
3. Legend changes on the General Plan Land Use Map (Exhibit C) which reflect several revised commercial land use categories and the addition of the newly adopted Residential/Accessory Services (RAS) Zone as a corresponding zone of the Plan's commercial designations and the Residential Zero Side Yard (RZ) Zone, as a corresponding zone of the Low Medium I Multiple Family Residential designation.

4. Amend the General Plan Land Use Map (Exhibit C) with footnote changes which were added to provide descriptive or policy information.
5. Amend the General Plan Land use Map (Exhibit C) and the Highways and Freeways Map of the Transportation Element of the General Plan to re-designate streets (as identified in Exhibit G) to classifications that are most compatible with current and future development patterns in the community.
6. Amend the Citywide General Plan Framework to reflect refinements and modifications to the Community and Neighborhood Centers and Mixed Use Boulevards (as detailed in Exhibit H).

### **RECOMMENDATIONS TO THE CITY PLANNING COMMISSION**

**ACTIONS RECOMMENDED BY STAFF:** That the City Planning Commission:

**CONDUCT** a limited Public Hearing on the following items:

1. Proposed Zone Change from RD2-1VL to [Q] RD2-1VL on the west side of Morton Avenue from Avalon Street to Echo Park Avenue (Subarea 49).
2. Proposed Zone Change from C1-1VL to [Q]C1-1VL on commercially zoned land on Echo Park Avenue from Lucretia Avenue to Cerro Gordo Street (Subareas 50a, 50b and 50c).
3. Proposed Plan Amendment and Zone Change from Low Medium II Residential and RD1.5 to Neighborhood Commercial and C2 at the northeast corner of the intersection of Echo Park Avenue and Morton Avenue.

**APPROVE** the Staff Report as the Commission Report.

**APPROVE AND RECOMMEND** that the Mayor approve and the City Council adopt the attached Silver Lake-Echo Park Community Plan Resolution, Silver Lake-Echo Park Community Plan Text and Change Maps and Matrices (Exhibits B, C, D, E, F, G and H) amending the Silver Lake-Echo Park Community Plan as part of the General Plan of the City of Los Angeles.

**APPROVE AND RECOMMEND** that the City Council adopt the re-zoning actions to effect changes of zone as identified on the Land Use Change Map (Exhibit C) and Land Use Change Matrix (Exhibit D).

**ADOPT** the Mitigated Negative Declaration, Case No. ENV-2003-7281-MND, in its determination of approving the proposed Plan, and transmit the environmental clearance to the City Council for consideration and appropriate action. (Exhibit K).

**AUTHORIZE** the Director of Planning to present the resolution, Plan text and plan amendments to the Mayor and City Council, in accordance with Section 555 of the City Charter.

**INSTRUCT** the Department of City Planning to prepare the necessary ordinances changing the zones as shown on the Change Map (Exhibit C) and Change Matrix (Exhibit D)

**AMEND** the Highways and Freeways Map of the Transportation Element of the General Plan to reclassify selected streets within the Silver Lake-Echo Park Community Plan as identified in the Street Redesignation Matrix (Exhibit G).

**AMEND** the Citywide General Plan Framework to reflect changes and modifications as detailed in the General Plan Framework Matrix (Exhibit H) and Figure 1 in the proposed Plan (Exhibit B).

**DIRECT** the Department of City Planning to implement the Design Guidelines and Standards for the Silver Lake-Echo Park Community Plan by adding to the work program five (5) Community Design Overlay Districts (CDOs), including streetscape plans, or other zoning actions, as appropriate. Where applicable, recommended overlay plans should impose design guidelines and development standards to regulate mixed-use developments, when discretionary increases in floor area are sought (as shown in Figure 6 of the proposed Plan and detailed in Footnotes to the Plan map). CDOs are recommended in the following areas (as shown in Figure 4 of the proposed Plan):

1. Echo Park Avenue and Sunset Boulevard,
2. Sunset and Santa Monica Boulevards,
3. Rowena Avenue,
4. Silver Lake Boulevard, and
5. Temple Street.

**DIRECT** the Department of City Planning to support efforts to promote commercial revitalization and neighborhood character through the establishment of a Commercial and Artcraft Overlay District along portions of Glendale Boulevard and Alvarado Street to encourage the activities of the Plan area's artistic community.

**DIRECT** the Department of City Planning to add to its work program the necessary research to establish an HPOZ or other implementation tool, as appropriate, for the residential areas in Echo Park to:

- A. Protect the character and identity of the neighborhood,
- B. Preserve the area's significant architecture,
- C. Preserve and enhance Echo Park (the lake and park facilities) as a significant open space and amenity in the community, ensuring that surrounding development preserves view sheds and maintains a scale that is compatible with existing development.

**RECOMMEND** that the City Council approve staffing, unfreeze, backfill and funding for new City Planning Associate position in order to work on the implementation of the Silver Lake-Echo Park Community Plan.

**ADOPT** the following findings:

1. **Geographic Area** - The project area consists of the Silver Lake-Echo Park Community Plan Area located north of Downtown Los Angeles. The Community Plan Area consists of 7 square miles generally bounded by: Temple Street on the south, Hoover Street and Hyperion Avenue on the west, the Los Angeles River on the north and northeast and North Broadway, Lilac Terrace and Marview Avenue on the east.
2. **Charter Section 556** - In accordance with Charter Section 556, the proposed Silver Lake-Echo Park Community Plan text and map amendments are in substantial conformance with the purposes, intent of the provisions of the General Plan, including "the provision for an arrangement

of land use, circulation and services which will encourage and contribute to the economic, social and physical health, safety, welfare and convenience of the community, within the larger community framework of the City of Los Angeles" in that the Plan update allocates the range of land uses required to meet the needs of the community, including housing for the projected increase in population, and commercial and industrial uses that contribute to the economy of the community as well as the region, and take advantage of the Plan area's strategic location near Downtown Los Angeles and all of the City's mass transit opportunities while also providing safeguards to protect the quality of life in its residential neighborhoods.

3. Charter Section 558 – In accordance with City Charter Section 558, the proposed Plan update is related to other plans being prepared by the Department of City Planning in that it is substantially consistent with the restructuring of the General Plan which establishes the policies and standards used in updating the land use in all community plans. The Citywide General Plan Framework is a strategy for long term growth which sets a Citywide context to guide the update of community plans and Citywide General Plan Elements. The Framework incorporates a diagram that depicts the generalized distribution of centers, districts and mixed use boulevards throughout the City. The final determination about what land use is appropriate locally is made through the community plan and subsequent implementation programs.

The Silver Lake-Echo Park Community Plan Update (CPU) implements and refines centers designated by the General Plan Framework. The proposed Plan consolidates three separate overlapping Community Centers into one. It is located along Sunset Boulevard and includes its intersection with Echo Park Avenue, Glendale Boulevard and Alvarado Street, and extends along Alvarado Street to Temple Street (Please see Figure 1 in the Community Plan). Consistent with Framework recommendations, an area near the of intersection of Glendale Boulevard and Silver Lake Boulevard is designated as a Neighborhood District. Likewise, Sunset Boulevard, Temple Street and the Rowena Avenue-Hyperion Avenue Corridor have been designated mixed use boulevards. They have been modestly expanded from Framework recommendations as shown on Figure 1 in the proposed Plan (Exhibit B).

The proposed update is in conformance with the public necessity, convenience, general welfare and good zoning practice in that one of the Plan's objectives is to promote economic well being and public convenience through the allocation and distribution of lands in sufficient quantities to satisfy the housing, commercial, retail, service, industrial and open space needs of the community.

4. Amendments to the Plan Text – The Department of City Planning is updating the community plan to reflect current planning policies and practices. The proposed Plan includes several new sections formatted as chapters in the Plan text, including demographics, community participation, function, purpose, urban design and organization of the community plan and its relationship to other plans and programs by clarifying the context and hierarchy of the community plan. (Exhibit B).
5. Amendments to the Plan Map – The General Plan Amendments and associated zone changes include those shown on the Land Use Change Map (Exhibit C), the Land Use Change Matrix (Exhibit D), the Symbol Change Matrix (Exhibit E) and the Street Redesignations Matrix (Exhibit G).
  - A. A total of 39 subareas are identified as plan amendments with zone changes, including:
    - 1) 21 subareas in which commercial and industrial properties are designated to land use

categories that more accurately reflect their function in the community and in which [Q] "Qualified" Conditions are imposed to improve design and encourage greater compatibility with surrounding land uses; 2) five subareas that redesignate and rezone to Open Space recently acquired park space; 3) two subareas in which publicly owned properties are redesignated and rezoned to Public Facilities; and 4) eleven subareas in which property is being redesignated and rezoned to reflect the use of the property.

- B. A total of 11 subareas are identified as plan amendments with no zone change, 10 of which involve the redesignation of properties to commercial land use categories that more accurately reflect their function within the community and one of which changes commercially designated property to the Public Facility designation to more accurately reflect the use of the property.
  - C. A total of 16 subareas are identified as zone changes and include: 1) eight subareas in which both the zone was changed and [Q] "Qualified" Conditions were added to improve design and encourage greater compatibility with surrounding land uses, in accordance with objectives and policies stated in the Community Plan; 2) seven subareas in which the only change was the addition of [Q] "Qualified" Conditions to improve compatibility with surrounding areas as described above; and 3) one (1) subarea in which the zoning was changed to better reflect the existing use.
  - D. A total of 10 subareas are identified as either commercial or industrial name changes where the land use category is changed to be consistent with language changes instituted when the General Plan Framework was adopted.
  - E. A total of four (4) subareas are identified as commercial name changes and zone changes either changing the zone to better reflect existing and appropriate future uses or adding a [Q] "Qualified Condition to improve compatibility with surrounding areas.
  - F. A total of 18 subareas are identified as symbol changes, which include adding and deleting map symbols such as public parks, fire stations, schools and other public facilities.
  - G. A total of four (4) map changes (shown in Figure 8 of the Community Plan) are identified as changes to street classifications.
  - H. Changes to the General Plan Land Use Map include legend changes, which reflect several revised land use categories and new zones. They reflect the refinement of land use categories instituted with the adoption of the General Plan Framework and do not change existing land use or zoning. For example, the term "Highway Oriented Commercial" has been phased out; the comparable land use category is now "General Commercial." In this update, properties designated as Highway Oriented Commercial have been renamed "General Commercial" or redesignated as "Neighborhood Commercial" or "Community Commercial," as appropriate.
  - I. Additions, deletion or revision to the Plan Map Footnotes are also proposed in this update; in most cases footnotes were added to provide descriptive or policy information.
6. Amendments to the General Plan Framework– The proposed Citywide General Plan Framework Element is a strategy for long term growth which sets a citywide context to guide the update of the

Community Plans and Citywide elements. The Framework incorporates a Long Range Land Use Diagram that depicts the generalized distribution of centers, districts and mixed use boulevards throughout the City. It provides guidelines for updates of the City's community plans. As envisioned, the Silver Lake-Echo Park Community Plan Update program includes modifications and additions to the proposed Framework as detailed in the General Plan Framework Matrix (Exhibit H) and Figure 1 in the proposed Plan (Exhibit B).

7. Amendments to the Transportation Element – The Highways and Freeways Maps of the Transportation Element of the General Plan was adopted on September 8, 1999. The Transportation Element will be revised to reflect the changes made as part of the Community Plan Update, as detailed in the Street Redesignation Matrix (Exhibit G) and Figure 8 of the proposed Plan (Exhibit B).
8. General Plan/Zone Consistency – The amendments and zone changes comply with State Law Government Code Section 6560 (d) in that the amendments shall become effective upon the adoption of the City Council resolution and the zone changes are approved. Further, the Director of Planning is instructed to show due diligence in preparing the zone change ordinances.
9. Fish and Game Government Code Section 711.2 of Title 14 – That in accordance with the State of California Government Code, the proposed Silver Lake-Echo Park Community Plan Update will not have an individual or cumulative adverse effect on fish and/or wildlife resources as defined by Fish and Game Code Section 711.2.
10. California Environmental Quality Act – In accordance with the City of Los Angeles Guidelines for the implementation of the California Environmental Quality Act of 1970, a Mitigated Negative Declaration (Case No. ENV-2003-7281-MND) was prepared for the proposed Silver Lake-Echo Park Community Plan Update, after the completion of an Initial Study, which found that there were no significant impacts on the environment that could not be mitigated to the level of insignificance. A Transportation Improvement and Mitigation Program (TIMP) was also prepared as part of the environmental analysis.

Based on the above findings, the recommended plan amendments, zone changes, and related amendments are consistent with the public necessity, convenience, general welfare, and good zoning practice.

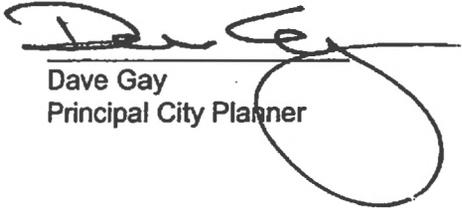
CON HOWE  
Director of Planning



Robert H. Sutton  
Deputy Director

Date 3/30/04

Approved by:



Dave Gay  
Principal City Planner



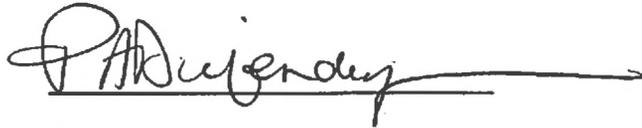
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Prepared by:



Patricia Diefenderfer  
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## STAFF REPORT

### BACKGROUND

The Silver Lake-Echo Park Community Plan was adopted on February 17, 1984. It was subsequently amended by several actions related to the General Plan/Zoning Consistency Program in the late 1980s and early 1990s. The Silver Lake-Echo Park Community Plan Update program is intended to update the land use goals and policies in the area to reflect the Citywide principles and objectives articulated in the City's General Plan framework; to respond to changes and trends in land-use development in the area; and to promote a pattern of development that continues to allocate land for the variety of uses that are needed by the community. The updated Community Plan provides a vision for the location and pattern of future development in the community, promoting current planning policies and practices and incorporating policies, programs and amendments which contribute to the welfare and convenience of the community. The Community Plan Update includes plan amendments, zone changes and policy language changes to the text where necessary and appropriate.

### CITIZEN PARTICIPATION

Focus Groups - In August of 2000, the Community Plan Update program began with a series of five focus groups held at five different locations throughout the community plan area for the convenience of residents and community stakeholders to invite public participation in the update process. Mailing lists were obtained from each of the Council offices which represent the area and approximately 250 notices were sent notifying prospective participants of meeting locations and encouraging them to share meeting dates and times with neighbors and other interested parties. Focus groups were intended to be small, representative groups that would help staff identify key issues, concerns and opportunities in the Plan area that should be addressed in the update of the community plan. They were attended by 83 people (some attended more than one). Feedback was subsequently summarized and sent to participants for further comment or clarification.

After being put on hold for many months at the request of the community, during a period when Council District 13 had no elected official, staff began formulating policies and meeting with various community groups to share and obtain feedback on key principles and programs being contemplated for the plan update. From September 2001 to May 2002, four presentations were made to community groups and various Neighborhood Council-in-Formation committees to present early plan proposals and ideas.

Public Workshop - On October 17, 2002 a public workshop was held on a draft Plan that was formulated from all of the community input and feedback obtained at the focus groups and subsequent community meetings. The workshop was attended by approximately 85 people. Public Workshop notices were sent to approximately 3,100 households, one in 10 households in the area and the list of interested parties (about 300 addresses) who had attended other meetings regarding the Plan update. Nearly 500 copies of the draft Plan were disseminated at the workshop and through subsequent inquiries. During this time the Certified Neighborhood Councils were in various stages of formation, and interested in having more concerted and coordinated participation in the community plan update.

Post Public Workshop - From October 2002 to July 2003, 15 meetings were held with various community groups and the Neighborhood Councils (or their formation committees) to obtain input on the draft Plan. During this time, the Neighborhood Councils were asked to give formal recommendations/input on the draft Plan. Comments were collected and together with extensive input

and meetings with the Neighborhood Councils, the Plan was revised. Concerns on the part of Neighborhood Councils which felt they still had not had adequate time to review and give informed comment on the draft Plan caused them to solicit input from the respective communities which they represent. In the case of Silver Lake and Echo Park, this led to a jointly sponsored Community Forum to hear from the people they represented. Planning Department staff was invited and attended the Community Forum to provide information and educate the community about the proposed Plan. This forum was held on October 4, 2003 and attended by nearly 150 people. The Neighborhood Councils organized and did outreach for this meeting.

Open House and Public Hearing – In coordination with Neighborhood Councils, the Open House was held on September 29, 2003 and the Public Hearing was held on October 20, 2003. The timing of the two meetings was chosen to allow people time to review the revised Plan in advance of both the Neighborhood Council-sponsored Community Forum and the Public Hearing, where the public would have the opportunity to give formal comment on the Plan. A single notice was sent to more than 31,000 households, comprised of County Assessor and City Clerk records and interested parties lists, to notify residents and property owners of the Open House and Public Hearing. The Open House was attended by approximately 150 people. The Public Hearing was attended by approximately 51 people and 19 people spoke. The Department of City Planning has also received 68 (some from duplicate authors) written comments since the Open House and Public Hearing.

Over the course of the meetings, focus groups, workshops and open house, the community identified the following issues and opportunities:

### **Community Issues and Opportunities**

#### **Residential**

##### Issues

- Need to downzone residential areas that have architecturally significant structures as a means to alleviate potential pressure for redevelopment
- Desire generally to preserve the character, identity and scale of residential neighborhoods
- The increasing inaffordability of housing in the Plan area
- Limited parking and traffic congestion on residential streets
- Capacity of narrow hillside residential streets

##### Opportunities

- Ability to locate housing in close proximity to employment centers such as Downtown Los Angeles, the Wilshire District and Hollywood
- Ability to locate housing near mass transit, including the Plan area's major bus routes with proximity and connection to Red Line Stations and Union Station with access to light rail lines and commuter trains to promote sound planning and respond to Citywide housing shortages

**Commercial**Issues

- Need to preserve the scale, walkability and distinct character of the Plan area's commercial districts
- Concern on how the proposed mixed use floor area ratio bonus will affect character and scale of commercial areas
- The capacity of public facilities and infrastructure to support additional residential and commercial development
- Limited parking and circulation in commercial areas
- Need to enhance the aesthetic quality of commercial areas through landscaping and design standards
- Preservation of existing height limits
- Extend recommended Sunset Junction CDO to Coronado Street

Opportunities

- To preserve and enhance commercial areas with a distinct character and identity
- To preserve and enhance the pedestrian orientation of commercial areas
- To promote mixed-use development in centers and along transit-served commercial corridors that contribute to the diversity and vibrancy of the community
- Use of design overlays and streetscape plans to enhance the aesthetic quality and functionality of the Plan area's commercial corridors

**Industrial**Issues

- Incompatibility of areas where industrial and residential land uses abut
- The transition of the industrial area in Elysian Valley; how to encourage desirable uses and better harmonize existing and future industrial uses with adjacent residential development

Opportunities

- To create a pedestrian-oriented neighborhood in Elysian Valley with a neighborhood center that provides within close proximity necessary commercial uses and community services
- To develop residential and mixed-use projects in Elysian Valley that provide amenities to the community as well as continue to allow clean industrial uses that supply jobs

**Transportation/Parking**Issues

- Traffic congestion throughout the Plan area including major thoroughfares and residential streets
- Narrow, hillside residential streets that cannot accommodate parking and traffic needs
- Designate Academy Way as a scenic byway

- Proposals for signs to direct Dodger Stadium traffic in Elysian Park on Stadium Way, a designated scenic highway
- Generally to protect Elysian Park and other open spaces from street widenings that will reduce parkland
- Impact of Dodger Stadium traffic on Solano Canyon Neighborhood
- Threat to pedestrians and recreationists on Silver Lake Boulevard in the vicinity of the Silver Lake Reservoir
- Proposals for resolving the challenges presented by the termination of the Glendale Freeway on Glendale Boulevard in Echo Park
- Traffic congestion on Glendale Boulevard and generally cut through commuter traffic throughout the Plan area by motorists avoiding freeway traffic while traveling to and from Downtown.
- Limited parking in the Plan area's commercial districts and the impact on business

#### Opportunities

- To maximize transit use in the Plan area because of its proximity to a variety of mass transit opportunities and employment centers
- Promotion of non-motorized transportation facilities such as bicycle paths, particularly existing and planned bicycle facilities along the Los Angeles River comprising the Plan area's northern and eastern boundary.
- Promote additional DASH shuttle lines to transport people among residential neighborhoods, shopping centers and transit stops.
- Establish centralized parking facilities to serve centers and districts and to improve signage to direct people to existing municipal parking lots

#### **Open Space/Recreation/Public Facilities**

##### Issues

- Need for park space and recreational facilities
- Need for passive as well as active park facilities
- Need for a library, community center and senior center and other social services in Elysian Valley

##### Opportunities

- To develop the Silver Lake Reservoir as an open space and recreational resource in the community
- Design and programming of recently purchased open space
- Ongoing redevelopment of the Los Angeles River as a recreational, non-motorized transportation and open space resource.
- Continued exploration of joint-use and multipurpose facilities

#### **Other**

##### Issues

- Proliferation of signs, particularly billboards, before the Citywide ban.

- The location and screening of wireless telecommunications facilities
- Enhancement and beautification of the public realm through landscaping and streetscape plans
- Preservation of the Plan area's mature urban forest, both on private property and in the public realm

#### Opportunities

- Identify and prepare appropriate implementation tools to achieve identified goals and objectives
- Development of pocket parks, public open space and amenities and other community services and facilities as part of mixed-use projects

The comments of the East Los Angeles Area Planning Commission, the recommendations of the Neighborhood Councils and public comment area summarized below.

#### **EAST LOS ANGELES AREA PLANNING COMMISSION**

The Silver Lake-Echo Park Community Plan Update was introduced to the East Los Angeles Area Planning Commission (APC) at its March 24, 2004 meeting. The role of the APC on the Plan update was to review the plan and make comments that can be forwarded to the City Planning Commission for their consideration.

Three of the five commissioners were present at the meeting. Staff gave a brief presentation, which was followed by a public comment period. Ten members of the public spoke. Subsequently, staff responded to comments made by the public and answered questions posed by the commissioners.

Generally, the commissioners supported community request for conducting and funding a historic resources survey for Echo Park and particularly for protecting the architectural resources adjacent to Echo Park Lake. They were interested in protecting historic resources and rehabilitating older housing stock with the end result of both historic preservation and conserving affordable housing.

They noted residents' concern about variances that potentially lead to increased density and impact traffic and public services and infrastructure. They were supportive of requests to ensure that services and infrastructure generally keep pace with development.

The commissioners also supported requests to include Elysian Valley to the name of the Community Plan. They further expressed concern about the displacement of affordable housing and the changes occurring in Elysian Valley, encouraging additional attention to and study of the area.

#### **NEIGHBORHOOD COUNCIL RECOMMENDATIONS**

From the time of the Public Hearing to January 2004, the Certified Neighborhood Councils (CNCs), through their committees and governing boards, have acted on and submitted their recommendations on the Plan. They are as follows:

##### Greater Echo Park Elysian Neighborhood Council

1. Decisionmakers should ensure that there is adequate infrastructure, including parks and school rooms for families, to support mixed-use projects seeking a Floor Area Ratio (FAR) bonus along Sunset Boulevard and Alvarado Street. (See discussion of Issue 1, Page 16 of this staff report.)
2. Combine the three discreet Community Centers into one. (See discussion of Issue 7, Page 26 of this staff report.)
3. Include Echo Park Lake and adjacent properties in the future proposed Sunset Boulevard/Echo Park Avenue Community Design Overlay District. (See discussion of Issue 3, Page 20 of this staff report.)
4. Discretionary mixed-use Floor Area Ratio (FAR) bonus: The Board of the Certified Neighborhood Council (CNC) voted against the discretionary 3:1 mixed use FAR bonus. (See discussion of Issue 1, Page 16 of this staff report.)

#### Silver Lake Neighborhood Council

1. Extend the proposed Sunset Junction Community Design Overlay District to Coronado Street. (See discussion of Issue 15, Page 29 of this staff report.)
2. Limit discretionary mixed use FAR bonus to a 2:1 FAR; and guarantee that infrastructure can support approved project (especially parks and open space). (See discussion of Issue 1, Page 16 of this staff report.)
3. Change height district from 1VL to 1XL for specified areas to protect existing scale: (See discussion of Issue 6, Page 25 of this staff report.)
  - a) Hyperion Avenue - from Rowena Avenue to Landa Street
  - b) Rowena Avenue - from Lakewood Avenue to Hyperion Avenue
  - c) Silver Lake Boulevard - from Effie Street to Swan Place
4. The need for an implementation Plan that a) lays out a schedule for the establishment of overlays, b) coordinates other elements of the General Plan and that c) lists the actions that need to be taken by other City departments. (See discussion of Issue 16, Page 29 of this staff report.)
5. After adoption of CPU, follow-up with more fine-grained neighborhood planning. (See discussion of Issue 16, Page 29 of this staff report.)

#### Elysian Valley NC

1. Rename the Plan to include Elysian Valley.
2. Oppose the language under the "Industrial Opportunities" section that identifies live/work, artisan uses as appropriate uses of industrial properties along the Los Angeles River. (See discussion of Issue 3, Page 20 of this staff report.)

3. The Neighborhood Council opposes language referring to developing a continuous greenway along the LA River or identifying Elysian Valley as a gateway or linkage between area parks. (See discussion of Issue 11, Page 28 of this staff report.)
4. Requests that the zone change of industrial properties to CM only apply to the area identified as a potential future neighborhood center and retain the M1 and M2 zoning in the rest of the Elysian Valley industrial area but identify it as a special study area. Revise Policy 3-2.1 and its programs to be consistent with this recommendation. (See discussion of Issue 3, Page 20 of this staff report.)

#### Solano Canyon Neighborhood – represented by the Historic-Cultural Neighborhood Council

1. Street Redesignations – Recommended that Amador Street and Solano Avenue not be redesignated to collector streets from local streets. (See discussion under Issue 8, Page 26 of this staff report.)

### **SUMMARY OF PUBLIC HEARING**

#### **DISCUSSION OF KEY ISSUES**

Several topics are discussed below in detail.

#### **ISSUE 1: Proposed discretionary mixed use floor area ratio (FAR) bonus** (Exhibit 1 attached)

##### Existing Condition

Sunset Boulevard, Alvarado Street and Temple Street are currently designated for commercial use and are zoned either C1-1VL or C2-1VL. Currently, on those corridors, a Floor Area Ratio (FAR) of 1.5 to 1 is permitted and residential densities of either R3 or R4 are permitted (in the C1 and C2, respectively). Mixed-use developments are also currently permitted in these zones. However, because residential and mixed use project typically require 2:1 to 2.5:1 FAR, an increase in FAR to above 1.5:1 is required for the construction of residential and mixed-use projects.

##### Issue

The community is concerned about the proposed Plan recommendation that would allow an increase in the permitted floor area, with appropriate discretionary approval, for mixed-use projects. The proposed Plan recommends that, on certain corridors, specifically Sunset Boulevard, Temple Street and Alvarado Street, mixed-use projects be eligible for an increase in floor area up to a maximum of 3:1, with proper discretionary approvals that would require appropriate environmental review and a public hearing.

##### Discussion

The proposed increase in floor area for mixed-use projects would not be permitted by-right or without the above-described environmental review and public process. Increases in floor area can be sought under the current Plan (as can be done throughout the City) with proper discretionary action. This

policy would simply identify those areas where an increase in floor area for mixed-use projects is supported as a matter of policy. The intent is to encourage mixed-use development along corridors served by transit and those which can otherwise support such development. The policy is proposed for the following reasons:

- Mixed use is typically infeasible in 1.5:1 FAR;
- There is a citywide housing shortage;
- There is a particular need for large multifamily units;
- The General Plan of the City, as a policy, and as it is implemented in the proposed Plan; encourages development to locate in centers and along mixed use boulevards which have access to transit and connect centers, as a means to preserve stable single and multiple family neighborhoods;
- Greater access to and use of transit is necessary to reduce traffic congestion and improve air quality; and,
- There is an opportunity to improve the City's jobs/housing balance by promoting housing in the Plan area, given its proximity to Downtown, a regional employment center and employment centers in Wilshire and Hollywood.

Public Comment - The community perceives that this proposal would:

- Represent an increase in height and/or density;
- Impact traffic and parking in the Plan area;
- Impact public services and infrastructure;
- Impact neighborhood character and scale; and,
- Impact quality of life.

#### Recommended solutions

The proposed increase in floor area will make more feasible the development of larger unit, multifamily developments that could provide housing to alleviate a well-documented housing shortage citywide. With increased floor area, larger family units can be developed. Since the zoning remains the same the number of units that would be permitted will not change. Likewise, since the existing height limits are being retained throughout the Plan area, the Plan is not permitting an increase in height. The increase in Floor Area Ratio is only included in a Footnote to the General Plan Land Use Map Legend. Individual Plan Amendments to allow increases in FAR would have to be filed by applicants. The following are ways to resolve the expressed community concerns.

1. Areas where the discretionary 3:1 FAR is permitted has been fine-tuned (see Exhibit 1 attached).

In the previous proposal, the mixed-use floor area bonus would have applied to the entire length of Sunset Boulevard. In response to public comment and concern about neighborhood character, architecturally significant structures and the potential displacement of affordable housing, specific segments of Sunset Boulevard were identified as appropriate for the proposed discretionary mixed-use FAR bonus, while other segments were eliminated.

Generally, portions of Sunset Boulevard are identified as eligible for a proposed FAR bonus because they are areas that: a) currently do not have an existing pedestrian friendly orientation and/or uses; b) exclude pockets that potentially have the higher concentrations of architecturally significant buildings; c) are currently developed with mini-malls and shopping centers that are potentially good opportunities for redevelopment. The areas that were excluded either: a) have an existing pedestrian friendly environment and contribute to the character and identity of the neighborhood (i.e. "Downtown" Echo Park, Sunset Junction); b) potentially have the higher concentrations of architecturally significant buildings; or c) have topographic constraints.

2. The proposed FAR increase is discretionary and would require environmental review and a public hearing to be approved.
3. Height districts are not being changed; existing height districts, predominantly 1-VL throughout the Plan area, are retained.
4. The density is not being increased. As is the case currently, the zoning along the commercial corridors will remain either C1 or C2, allowing the same residential densities currently permitted (the densities of the R3 or R4 zone, respectively).
5. Where C1 properties are being re-zoned to C2, the zoning is generally changed to permit uses desired in the community and compatible with surrounding development and character that are not permitted in the C1 such as art galleries, secondhand stores and restaurants with outdoor dining.
6. A [Q] Qualified Condition generally accompanies the C2 zoning to prohibit undesirable C2 uses such as auto-related uses, recycling and drive-through windows that detract from the pedestrian orientation and invite more vehicular traffic.
7. Recommended Community Design Overlay Districts and Streetscape plans overlap with areas where the discretionary FAR increase is proposed so that guidelines and standards can be devised to ensure new development is sensitive to neighborhood character and scale.
8. The Plan incorporates policies (Policy 2-4.3 and its programs) that identify the instances in which mixed-use projects seeking increased FAR are either supported or discouraged by the Plan. They are: encouraged when the project 1) entails the redevelopment of a shopping center/mini-mall, 2) does not displace affordable housing, and 3) does not replace architecturally significant structures.
9. The Plan also incorporates policies (Policy 2-4.3 and its programs) that require decision-makers to make findings of compatibility and consistency with Plan goals and objectives when approving projects requesting increased floor area.

**ISSUE 2: Elysian Valley Industrial Zone Changes**  
(Exhibits C and D, Subareas 33A, 33B and 33C)

### Existing Condition

Elysian Valley has long contended with conflict caused by abutting industrial and residential land uses. In this neighborhood, R2 and R1 zoning abuts M1 (primarily) and M2 zones. The result has been a residential area that has endured the pollution, noise, truck traffic and other conditions commonly associated with industrial land uses.

### Issue

The proposed Plan recommends changing the existing industrial zoning to the CM zone to prohibit new noxious industrial uses in such close proximity to residential uses. Likewise, this zoning will permit the development of neighborhood-serving commercial uses to an underserved residential area, as well as housing, to allow the transition of the neighborhood to uses that are more compatible with existing residential development. The community, guided by the leadership of the Elysian Valley Riverside Neighborhood Council, is concerned about gentrification of the neighborhood and the pressure for upscale housing that the change to the CM zone could trigger, a condition that would spur the trend of higher property values in the area and the potential displacement of existing residents. This neighborhood has traditionally been a working class neighborhood, one in which housing and home ownership has been affordable to people of moderate incomes.

### Discussion

The [Q] CM zoning is proposed as a means to address the long-standing conflict between land uses in the neighborhood. The [Q] Qualified Conditions impose design standards to improve compatibility between conflicting uses, limit residential density and put limits on where 100% industrial and 100% commercial uses can be developed, as a means of permitting a range of desirable uses, including: the potential development of a neighborhood center; mixed-use developments that provide housing and neighborhood-serving commercial uses; or 100% industrial projects that generate jobs but are limited to clean uses that are compatible with nearby residences. Public support, as expressed by the Elysian Valley Riverside Neighborhood Council recommendations, for retaining the existing M zones in industrially designated areas outside of the potential neighborhood center prolongs the exposure of residents to the impacts of heavy industrial uses and deters uses that could allow the area to transition into a functional neighborhood served by commercial establishments and community facilities, as well as one in which clean industrial uses can still provide needed jobs. Additionally, retaining the industrial zoning will promote loft, live/work housing over more traditional multiple family housing desired by the community, since the latter is the only type of residential use permitted in industrial zones. Conversely, the proposed zone change would permit traditional multiple family housing. The proposed zone change supports the community's desire for moderate income multiple family residential housing and ensuring a supply of such housing in the community as a means to retain its identity and character. In sum, the proposed zone change will make more feasible a range of housing options that may both contain housing costs in the area and help alleviate the Citywide housing shortage.

### Public Comment

The following summarizes public comment on this issue:

- Allowing residential uses "by-right" in the industrial areas will spur already increasing property values and the displacement of existing residents.
- Loft and joint live/work developments do not provide housing for the moderate-income families who have historically lived in the area, nor do they promote the type of housing that retains the existing character of the neighborhood.

### Recommended Solution

[Q] Conditions will be imposed to achieve the following:

- Impose various design standards intended to buffer and bring greater compatibility between industrial and residential uses.
- Prohibit 100% industrial development and allow 100% commercial development in an area identified as a potential neighborhood center (identified as Subareas 33B and 33C in the Proposed Land Use and Zone Change Map and Matrix, labeled Exhibits C and D) to encourage the development of a center where commercial uses and community services can be located.
- Outside this potential center, prohibit 100% commercial developments but allow 100% industrial development to promote clean, job-generating industrial uses or mixed-use projects that will provide housing and neighborhood-serving commercial.
- Limit the R3 residential density permitted in the CM zone to 1 unit/ 1,200 square feet of lot area (as opposed to the 1 unit/800 square feet of lot area) that would otherwise be permitted and impose design standards on residential development. The reduced density and residential design standards are intended to promote family housing while helping to retain the character and scale of the neighborhood.

### **ISSUE 3: Downzoning of Specified Residential Areas in Echo Park**

(See Exhibits 2 through 5 attached)

#### Existing Condition

Most of Echo Park is zoned for lower density multiple family residential use, typically reflecting the actual densities to which the areas are predominantly developed. Residential areas in question are zoned RD1.5 at their most dense, a zone which permits one unit for every 1,500 feet of lot area or three units on a standard 5,000 square foot lot. Typically, the areas for which downzoning has been requested are zoned RD2, a zone which permits one unit for every 2,000 square feet of lot area or R2, which permits two units on a lot. Some areas are zoned for lower densities, such as RD3 which allows one unit for every 3,000 square feet of lot area or 1 unit on a standard 5,000 square foot lot.

#### Issue

Previous drafts of the Plan did not recommend changes to zoning of any residential properties, with the exception of three properties that represent a cleanup from the General Plan/Zoning Consistency Program of the late 1980s. However, community members are requesting a downzone of specific residential streets in Echo Park. Two reasons are typically cited for downzoning: 1) protection of the historic and architectural integrity of the neighborhood and structures or 2) the capacity of specific narrow hillside streets to accommodate traffic and parking needs, if additional housing is developed.

#### Discussion

Field surveys and analysis have revealed that existing zoning is generally appropriate. The areas that are subject to requests for downzoning are developed as multiple family neighborhoods. The challenge in determining the zoning for these neighborhoods is the great variety in terms of both existing development and lot sizes which are among the many factors used in determining the appropriate zoning. The concern is that the existing zoning makes it economically attractive for developers to assemble lots and replace existing development with new potentially more dense residential projects, resulting in 1) the loss of architecturally significant structures and 2) erosion of the character of the neighborhood by development that is incompatible in scale, massing and bulk to existing development. Because of the nature of existing development which in a single block can vary from 1 unit per lot to 14 units per lot and likewise lot sizes that can vary from 1,611 square feet to nearly 22,000 square feet, it is challenging to assign zoning that generally reflects existing development but does not result in significant numbers of nonconforming structures. Creating nonconforming structures can precipitate the disrepair of structures and neighborhoods because financial institutions tend not to give loans to rehabilitate structures that are inconsistent with zoning. The City is also experiencing a severe, well-documented housing shortage and increasingly unaffordable housing costs; consequently it is not sound policy to reduce the housing capacity of the Plan area. The recommended [Q] Qualified Condition which would prohibit lot ties in specified locations (see attached Exhibits 2 through 5) balances the prevalent need for housing with a measure that would encourage preservation.

#### Public Comment

Comments were received about the following areas and can generally be summarized as follows (see attached figures):

- North of Avalon Street and east of Glendale Boulevard - Narrow streets cannot support additional residents and their impact on traffic and parking. Additionally, development of the commercially zoned properties in the northern portion of Echo Park Avenue could potentially result in a project that is out of character and scale with the neighborhood (commercial zoning on Echo Park Avenue is addressed below).
- Echo Park Avenue east to Portia Street and Morton Avenue from Avalon Street to Sunset Boulevard - Concerns about neighborhood character and architecture.
- West of Glendale Boulevard and south of Sunset Boulevard – Concerns about neighborhood character and architecture.
- North of Echo Park Lake - Concerns about neighborhood character and architecture and impact of new development on the park.

#### Recommended Solutions

- Research and develop as necessary a Historic Preservation Overlay Zone or other appropriate implementation tool to protect and preserve the neighborhood character and architecture in Echo Park (see Plan Text).
- Add [Q] Qualified conditions to the West side of Morton Avenue from Avalon Street to Echo Park Avenue, zoned RD2, (see attached Exhibit 3) to prohibit lot ties. This recommendation is

made for this specified boundary area because the zoning and large lot sizes (14,500 is a common lot size) could encourage redevelopment since tying even two lots could result in densities that could make redevelopment viable.

Changes are not recommended for the areas specified below (see attached Exhibits 2-5) due to the following:

**Echo Park Avenue**

- South of Sunset Boulevard - included in the proposed Angelino Heights HPOZ expansion area;
- Sunset Boulevard to Scott Avenue - part of a designated Community Center that is zoned and designated commercial. Given its proximity and accessibility to transit, services and shopping and the role this area plays in the larger community, the existing zoning and land use designations are appropriate;
- North of Scott Avenue - the fact that Echo Park Avenue is served by a bus route makes it a sound location for multiple family development. The residential land on Echo Park Avenue is designated as low density multiple family residential (Low Medium I and Low Medium II); the zoning is predominantly RD2 and RD3 which reflects existing conditions and appropriate future use of the area (see the section titled Commercial land on Echo Park Avenue for further discussion).

<b><u>Morton Place</u></b>	R2
<b><u>Parmer Avenue</u></b>	RD2 west side of the street; R2 east side of the street
<b><u>Laveta Terrace</u></b>	R2 west side of the street; R2 and RD2 east side of the street
<b><u>Portia Street</u></b>	RD1.5 (to the north) and RD2 (to the South) on the west side of the street; RD2 on the east side of the street
<b><u>Sargent Place</u></b>	RD2 on the west side of the street and R2 on the west side north of Sargent Court and on the east side of the street.
<b><u>Vestal Street</u></b>	RD2 on the east side of the street (west side R1 excluded)
<b><u>Valentine Street</u></b>	RD1.5 on the west side of the street; RD2 on the east side of the street
<b><u>West of Glendale Boulevard and Sunset Boulevard</u></b>	RD2

- The zoning is appropriate for existing development (Portia Street and Laveta Terrace, Sargent Place).
- The existing zoning and lots sizes are such that assembling enough lots for a viable redevelopment project would require the purchase of several lots, each with different ownerships, a condition that makes such a scenario unlikely (all of the above).

- A combination of lot sizes and/or challenging topography make it unlikely that a prospective developer would attempt to assemble several lots for purposes of redevelopment (Parmer Avenue, Sargent Place).
- The zoning is RD2 or more restrictive permitting densities that generally do not permit large developments.
- With the exception of Morton Place and segments of Parmer Avenue and Sargent Place the streets meet the dimensions of standard local streets. The existing low density zoning on those streets (in most cases R2 or two units per lot) already takes into account the substandard streets, challenging topography and sometimes small lots while reflecting existing development.
- In some cases, particularly in the area west of Glendale Boulevard, a downzone would result in a significant number of nonconforming structures (typically 2-5 units on lots that range from 6,500-7,500 square feet).

#### **ISSUE 4: Commercial lots on Echo Park Avenue**

(see attached Exhibits 6A and 6B)

##### Existing condition

Commercial zoning currently exists on Echo Park Avenue, from Sunset Boulevard to its intersection with Lucretia Avenue and sporadically north of there to Cerro Gordo Street. These areas are developed with a mix of multiple family residential uses and occasional commercial uses. In the proposed Plan, the existing zoning would be retained, except C1 zoning from Scott Avenue to Lucretia Avenue is proposed to be rezoned to [Q]C2. The [Q] Qualified Condition prohibits uses that would not be neighborhood serving or pedestrian friendly but would allow galleries, outdoor dining and secondhand and antique shops which are currently prohibited. Further the Plan redesignates Highway Oriented Commercial properties to Neighborhood Commercial and adds the same [Q] Condition described above to make those properties more consistent and compatible with surrounding development.

##### Issue

Comment was received expressing concern about development of commercially zoned properties in a manner that is incompatible with the density and scale of the surrounding neighborhood. Some comments that were received suggested that commercial zoning, particularly on the northern section of the Echo Park Avenue corridor, such as the southeast corner of Echo Park Avenue and Cerro Gordo Street, is inappropriate and outmoded because the corridor is predominantly developed with residential uses.

##### Discussion

Echo Park Avenue, prior to the late 1980s General Plan/Zoning Consistency Program, had continuous commercial zoning, a zoning rooted historically in the fact that this arterial has always been served by mass transit, first by an electric car line and now with bus service. While predominantly residential, particularly to the north, the result of this history is a unique character and mix of commercial and residential uses as well as a mix of single and multiple family residential development. Intermittent commercial zoning allows the opportunity for stores for basic shopping within walking distance or a short drive of residents of the hillside neighborhood. Given the bus service on Echo Park Avenue, it is sound planning to allow the opportunity for mixed-use

development which would bring a certain amount of neighborhood-serving commercial uses in close proximity to residential uses, as well as multiple family development with access to transit. Commercial uses can increasingly become viable and an amenity to nearby residents. The result can be a better quality of life for existing residents who will derive benefits from living in a traditional neighborhood with access to transit and basic services within walking distance. Any new developments will also be required to provide code-required parking which should prevent new developments from impacting the limited street parking characteristic of older neighborhoods developed before current parking standards. [Q] conditions placing limitations on density and requiring guest parking (in specified locations, see attached figures) will deter developments that will be incompatible in scale to existing development and lessen potential pressures to demolish and replace existing development. The guest parking requirement will help alleviate any new developments' impact on parking in the area. These measures are intended to balance the realities of a citywide housing shortage with the goal of preserving neighborhood character, scale and the integrity of the area's architecture.

#### Public Comment

- Echo Park Avenue, particularly the northern portion, is primarily residential, and commercial zoning is inappropriate and outmoded;
- Densities permitted in commercial zones (R3 and R4 depending on the zone) exceed the densities of surrounding development;
- Existing zoning will permit development that is out of character and scale with the existing neighborhood and encourage the loss of potentially architecturally significant structures that currently exist on commercially zoned properties; and
- Some questioned the viability of commercial uses in a hillside area with limited residents.

#### Recommended Solutions

[Q] Qualified Conditions will be used to do the following:

1. Limit residential density on commercially zoned properties to 1 unit per 1,200 square feet of lot area.
2. Limit commercial uses to neighborhood-serving uses on the ground floor, with the exception of the commercial portion of joint live/work units, which may be located above the ground floor.
3. Require a 1/4 space of guest parking for each dwelling unit to address one of the major concerns which is inadequate parking in the neighborhood.

#### **ISSUE 5: Downzone of the Silver Lake R3 South of Sunset Boulevard**

##### Existing Condition

The zoning in limited areas of Silver Lake south of Sunset Boulevard is R3. No change for the area is recommended in the proposed Plan.

##### Issue

Comments were received requesting a downzone from R3 to RD1.5 to preserve the character of the neighborhood and for environmental considerations, particularly the impact of potentially more dense development on traffic and parking on specified residential streets.

### Discussion

There are several reasons why no change is recommended for this area. It is not sound or responsible planning to decrease the capacity for housing in the current climate governed by a severe citywide and regional housing shortage and the increasing inaffordability of housing in the region, resulting from a market that does not supply enough housing units to meet demand. Existing development in this area varies tremendously from single family structures to large 28- to 50-unit apartment buildings. Changing the zone as requested would also result in nonconforming structures, a condition that could contribute to the disrepair of the structures and potentially the decline of the neighborhood, since financial institutions are reluctant to grant loans to rehabilitate structures not permitted by existing zoning. Additionally, the lots in the area typically range in size from 5,000 to 7,500 square feet which at the R3 density would permit 6 to 9 units on a lot, a number of units that is not uncharacteristic of the area. Moreover, the assembly of lots would be necessary to construct large developments that are out of character with the area. This would require the consent of several owners and would be difficult and unlikely. Finally, public comment has noted that the zoning on west side of Hoover Street is RD1.5 or half that of the area east of Hoover Street. In actuality, the character and pattern of existing development of this portion of Silver Lake substantially differs from and is more dense than the area on the other side of Hoover Street in the Hollywood Community Plan area. Furthermore, the streets in this area, with the exception of the Venango Circle meet standard local street standards.

### Public Comment

One comment letter written on behalf of the Silver Lake Residents Association was received on this matter and cited the following reasons for the request: 1) character of the area built predominantly in the 1920s, 2) its resource as a stock of affordable housing, 3) narrow, hillside streets and 4) mature vegetation.

### Recommended Solution

No change is recommended (see discussion above).

## **ISSUE 6: Height District Reduction**

### Existing Condition

Comment was received requesting that the height district along certain commercial corridors be changed from the existing 1VL, which permits 3 stories or 45 feet, to 1XL, which permits 2 stories or 30 feet. Those areas are: 1) Silver Lake Boulevard from Effie Street to Van Pelt Place, 2) Rowena Avenue from Lakewood Avenue to Hyperion Avenue; and 3) Hyperion Avenue from Rowena Avenue to Landa Street.

### Issue

No change for the areas identified is recommended in the proposed Plan.

### Discussion

The Rowena Avenue Segment - Rowena Avenue is located in a valley and the lots tend to slope upward as they go away from the street on both the north and south sides of the street. The topography reduces the likelihood that structures on the commercial frontage would obstruct existing development to the rear of Rowena Avenue. Furthermore the busy nature of this street and the dramatic mix of commercial and residential uses that already exist make it ideal for mixed-use projects or commercial developments that will serve the surrounding residential areas, including small office uses, as may be desirable in the future. For these reasons the existing 1VL height district, which would enable such developments to be viable, is appropriate for this corridor.

The Hyperion Avenue Segment - The proposed Plan recommends the designation of the Hyperion-Fountain Avenues corridor as a Mixed Use Boulevard, where as a general policy of the City, development, particularly, mixed-use development, is encouraged as a means to provide housing while preserving stable single and multiple family neighborhoods. In order for most development (particularly small-scale, mixed-use development) to be viable on this corridor the existing Height District 1VL is necessary, given the shallow lots on this corridor. Because of the predominance of automobile-oriented uses on this corridor and its central location, it provides opportunity for infill development that continues to better serve the surrounding community and contribute to the area's identity and sense of place.

The Silver Lake Boulevard Segment - most of the area in question is located in a proposed Community Design Overlay District (CDO). Once the CDO is established, projects will be subject to its development guidelines and standards and will undergo a review to ensure compatibility with surroundings.

#### Public Comment

The Silver Lake Neighborhood Council recommendation cites the need to protect existing neighborhood scale as the reason for the request.

#### Recommended Solution

No change is recommended (see discussion section on the previous page).

#### Other Comments

#### **ISSUE 7: Combining the Plan's three recommended Community Centers** (See Figure 1 in Exhibit B, proposed Plan)

The proposed Plan recommends the consolidation of three Community Centers identified in the General Plan Framework (GPF). There is consensus that the area encompassed in the three separate centers does serve as the focal point of the community. The Greater Echo Park Elysian Neighborhood Council, however, expressed concern, in its comments on the Plan, that the three separate Community Centers (defined as focal points in a community serving 25,000 to 100,000 people) implies the area would be expected to serve a surrounding population of potentially 300,000 people. The overlapping boundaries indicated that the centers had a common focal point but varying spheres of influence. Since it is not the intent of the Plan for this center to accommodate that kind of population, the three centers have been consolidated into one, encompassing the same geographic area.

**ISSUE 8: Street Redesignations**

(See Figure 7 in the proposed Plan, Exhibit B, and Exhibit G)

Amador Street and Solano Avenue - Earlier drafts of the Plan recommended the redesignation of these streets to Collector from the current designation of Local. Based on community input and coordination with the Department of Transportation, the proposed Plan recommends retaining existing street designations. These streets would be redesignated only if the areas are re-zoned to densities higher than the current R2 zone.

Bellevue Avenue - There were several comments expressing concern about the upgrade of Bellevue Avenue from Echo Park Avenue to Glendale Boulevard. The reasons cited are 1) loss of parkland if the street is widened and 2) the danger to pedestrians who cross the street to travel between park facilities on either side of the street.

The Silver Lake-Echo Park Transportation Improvement Mitigation Program (TIMP), a Plan-area wide traffic study revealed that this segment of Bellevue Avenue currently functions as a collector because it carries traffic from Glendale Boulevard to the 101 Freeway. The street will not require widening that would result in the loss of parkland. A standard collector requires a 64-foot right-of-way. This segment of Bellevue Avenue already has a 82.5 foot right-of-way and is currently built to Collector Street standards.

Stadium Way - Comments were received requesting a downgrade of Stadium Way from its current designation as a Secondary Highway. The Plan is not recommending a change at this time because Department of Transportation states that the current designation is necessary in light of traffic calming measures being taken on Glendale Boulevard at the Community's request. The Plan area has very few continuous north-south routes because of the topography. Traffic has no alternative but to travel down one of these two arterials. Furthermore, the TIMP identifies improvements to the off-set intersection of Stadium Way and Academy Road that would not result in loss of additional parkland, but would enhance circulation in the existing right-of-way which is expected to deter traffic from using residential streets to avoid congestion at that location.

Academy Road - Comments were received in opposition to the redesignation of Academy Road to a Collector street from a Local Street. Similar concerns about loss of parkland and degradation of the park setting were cited. The redesignation is being recommended to reflect the way in which this street currently functions in the community. It carries traffic from Dodger Stadium, Elysian Park, the Police Academy and the 110 Freeway. No widening would be required to meet the standards of this street designation since it already has a varying right-of-way width of between 76 and 84 feet and already exceeds Collector Street roadway standards. Furthermore, the proposed Plan recommends designating the street as a scenic byway to provide protections to the natural environment through which it traverses, in accordance with the Transportation Element.

**ISSUE 9: Signage on thoroughfares In Elysian Park**

Several comments were received in opposition to signs proposed for Stadium Way, the north-south arterial in Elysian Park, to direct Dodger Stadium traffic during games. This particular issue is an operational matter handled by the Department of Transportation. However, the existing designation of Stadium Way as a Scenic Highway and the recommended designation of Academy Way as a Scenic Byway are measures the Community Plan can take in preserving and protecting the natural park setting of these streets.

**ISSUE 10: Silver Lake Boulevard and Effie Street Intersection - Zone changes to the commercial properties**

(See Subarea 43 in Change Map, Exhibit C, and Change Matrix, Exhibit D)

Property owners (28) near the subject subarea signed a petition opposing the proposed "commercial center" at Silver Lake Boulevard and Effie Street in Silver Lake.

The Plan does *not* recommend a "commercial center" for that location. The proposed Plan recommends retaining the existing "Neighborhood Commercial" land use designation. It further recommends a zone change from the existing C1 and C2 zoning to [Q] C2. The zone change, the inclusion of a [Q] Qualified Condition, is intended to protect the unique character of this neighborhood-serving shopping district by imposing design requirements that will preserve and enhance the existing pedestrian-friendly character. The [Q] Conditions would prohibit automotive and recycling uses and drive-through windows and require new development to be built to the front property line and to locate parking in the rear. The changes are recommended to ensure that any new development maintain the area's prevailing pedestrian friendly uses and design and protect it from uses that invite vehicular traffic. The latter requirement is to protect against future development of mini-malls or shopping centers which break the building wall by locating parking in the front and detract from the pedestrian environment. Finally, the Plan recommends a future Community Design Overlay District and Streetscape Plan be prepared in a future planning process to set guidelines for private property and the public realm and a process for ensuring that any development preserves the area's character.

**ISSUE 11: Plan references to the Los Angeles River and Elysian Valley**

The Elysian Valley Riverside Neighborhood Council has opposed Plan language it perceives as describing the neighborhood and the Los Angeles River as a greenbelt or linkage between existing and future parks. The Plan does not refer to the Elysian Valley neighborhood as a link between parks. The Los Angeles River does however make up the eastern boundary of the Silver Lake-Echo Park Community Plan Area as well as the boundary of Elysian Valley. The Los Angeles River is a regional resource that cannot be overlooked by the Plan. It is accessible from Elysian Park and its path does flow adjacent to Griffith Park, another regional park in the neighboring Hollywood Community Plan Area. Furthermore the river is 51 miles in length and links not only various City neighborhoods (from Downtown to the northwest San Fernando Valley) but also several Cities from Long Beach to Los Angeles. It also meets the Arroyo Seco and Rio Hondo, a tributary of the San Gabriel River, connecting Los Angeles to cities in the San Gabriel Valley. As a result of the expansive geography this network of rivers cover, the Los Angeles River is a valuable regional resource and presents an opportunity for expanded regional non-motorized transportation and recreational facilities. Consequently, it is important that the Plan recognize and address the ways in which any future Los Angeles River projects should interface with and benefit area residents.

**ISSUE 12: Discussion of Downzoning and Plan Area Zoning Capacity**

The proposed Plan does not recommend residential downzoning primarily because of expected future population growth. While the Plan capacity is adequate for anticipated population growth to 2010, the Plan's horizon date, that date is less than 6 years away. The forecasted population growth for 2025 is 109,000. Current and proposed Plan capacity at this point is just over 95,000, falling almost 14,000 short of what will be needed to accommodate growth through 2025. As a result of this and the current citywide housing shortage, it is counter to General Plan goals and objectives to reduce the Plan area's zoning capacity at this time. Infill and redevelopment of commercial corridors is anticipated to provide

needed dwelling units and estimates for residential development in commercial areas have been included in the proposed Plan's capacity. Citywide, it is estimated that between 2 and 10% of commercially designated property (depending on the designation) will be developed with residential uses; this standard has been applied and already added to the estimated plan capacity of the proposed Silver Lake-Echo Park Community Plan.

#### **ISSUE 13: Silver Lake Reservoir**

The Department of Water and Power has revealed that it will de-commission the Silver Lake Reservoir from water operations. The result will be the need to plan for the future use and maintenance of the reservoir property. The proposed Plan still draws from and encourages the preservation of the reservoir as a community amenity and aesthetic resource and supports those aspects of the Silver Lake Reservoir Master Plan that may still be applicable in light of this change. Some of those are the development of the buffered pedestrian path and streetscape, gateway and other enhancements that continue to recognize the reservoir as a valuable community asset and a distinct source of the area's character and identity.

#### **ISSUE 14: Coordination with other Departments**

During the public participation process undertaken to date in updating the Silver Lake-Echo park Community Plan, members of the public, particularly, individuals elected to Neighborhood Councils, have expressed concern about the level of coordination among City department on the General Plan. The Department of City Planning, when embarking on a community plan update, coordinates with each department to learn about and incorporate any recent or planned changes to infrastructure, services or facilities in the geographic area. The Department coordinates extensively with the Department of Transportation on developing the scope and approving the methodology for the Transportation Improvement Mitigation Program (TIMP) or Plan-area wide transportation study to analyze traffic impacts of land use policies and development patterns on circulation for the life of the Plan. The Department continues to seek ways to better coordinate with City departments and other governmental agencies and has done so increasingly in recent years with public sector investment in public facilities, namely, new schools, parks, libraries and fire stations.

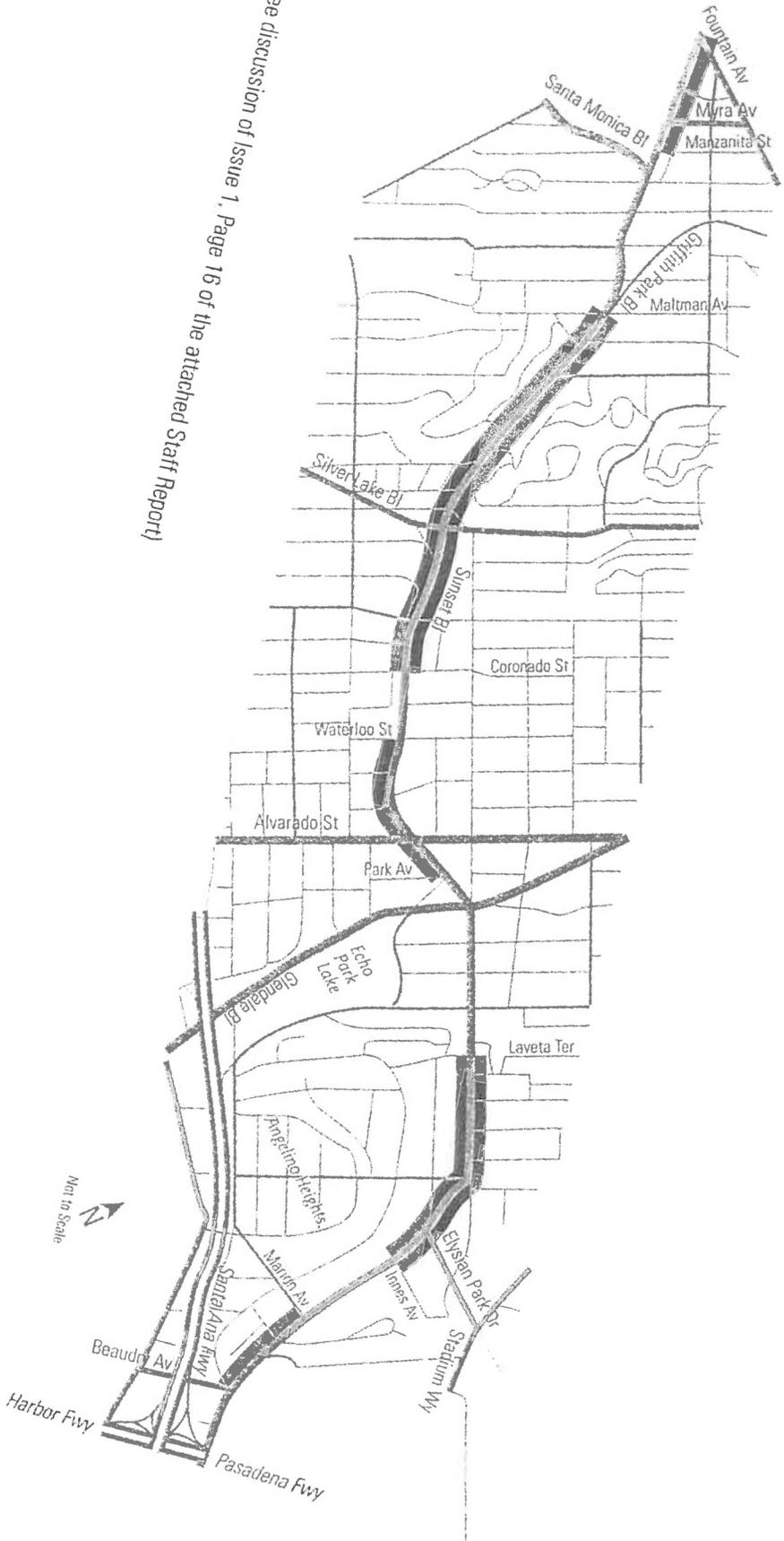
#### **ISSUE 15: Extend the proposed Sunset Junction Community Design Overlay (CDO) District to Coronado Street**

The proposed Plan recommends extending the proposed Sunset Junction CDO to Silver Lake Boulevard. The Silver Lake Neighborhood Council recommended that it be extended to Coronado Street. The proposed Plan recommends drawing the eastern boundary at Silver Lake Boulevard boundary for the following reasons: 1) the character of Sunset Boulevard varies greatly throughout the segment and 2) implementation of CDOs has been more successful when they have discreet boundaries and the area shares a common character. While there is still some variation in character west and east of Maltman Avenue, for example, there is benefit to extending the boundary enough to encompass and set development guidelines and standards for the segment from Maltman Avenue to Silver Lake Boulevard where the Plan recommends the discretionary mixed-use floor area bonus (see discussion under Issue 1 above).

**ISSUE 16: Future Plan Implementation**

Neighborhood Councils have further identified the need to follow the adoption of the Community Plan with the programs that implement Plan goals and policies, such as the establishment and preparation of recommended overlay plans. In their comments on the Plan, they have recommended an implementation plan that a) lays out a schedule for the establishment of overlays, b) coordinates other elements of the General Plan and that c) lists the actions that need to be taken by other City departments. They have also identified a need for more planning on a neighborhood level. The staff report requests that the City Council direct the Planning Department to add the recommended implementation programs in the proposed Plan to the work program to ensure Plan implementation. The staff report likewise requests that the City Planning Commission recommend that the City Council provide staff to carry out the implementation program. Ongoing coordination among relevant City departments, the Council District offices and community stakeholders, including the Certified Neighborhood Councils, will be required to define the priorities and schedule of the work program.

Silver Lake • Echo Park Community Plan Update  
**Sunset Boulevard Discretionary Mixed-Use Floor Area Bonus**



(See discussion of Issue 1, Page 16 of the attached Staff Report)

**Exhibit 1**

**Exhibit 2**

Echo Park Residential Areas  
 North of Avalon St  
**Plan Land Use & Zoning** (adopted February 17, 1984)



Land Use:		Corresponding Zones
<b>Residential</b>		
	Low	RS, R1, RD6, RD5
	Low Medium I	R2, RD3, RD4
	Low Medium II	RD2, RD1.5
	Medium	R3
<b>Commercial</b>		
	Highway Oriented	CR, C1.5, C2, C4, P
	Neighborhood & Office	C1, C1.5, P
<b>Open Space, Public/Quasi-Public</b>		
	Open Space	OS, A1
	Public Facilities	PF

Recommendation: No change  
 (See discussion of Issue 3, Page 20 of the attached Staff Report)

Not to Scale

**Echo Park Residential Areas  
South of Avalon St & East of Echo Park Av  
Plan Land Use & Zoning (adopted February 17, 1984)**



**Land Use:**

Residential		Corresponding Zones
	Low Medium I	R2, RD3, RD4
	Low Medium II	RD2, RD1.5
	Medium	R3
Commercial		
	Highway Oriented	CR, C1.5, C2, C4, P
	Neighborhood & Office	C1, C1.5, P
	Community	CR, C2, C4, P, PB
Open Space, Public/Quasi-Public		
	Open Space	OS, A1

**Recommendation:**

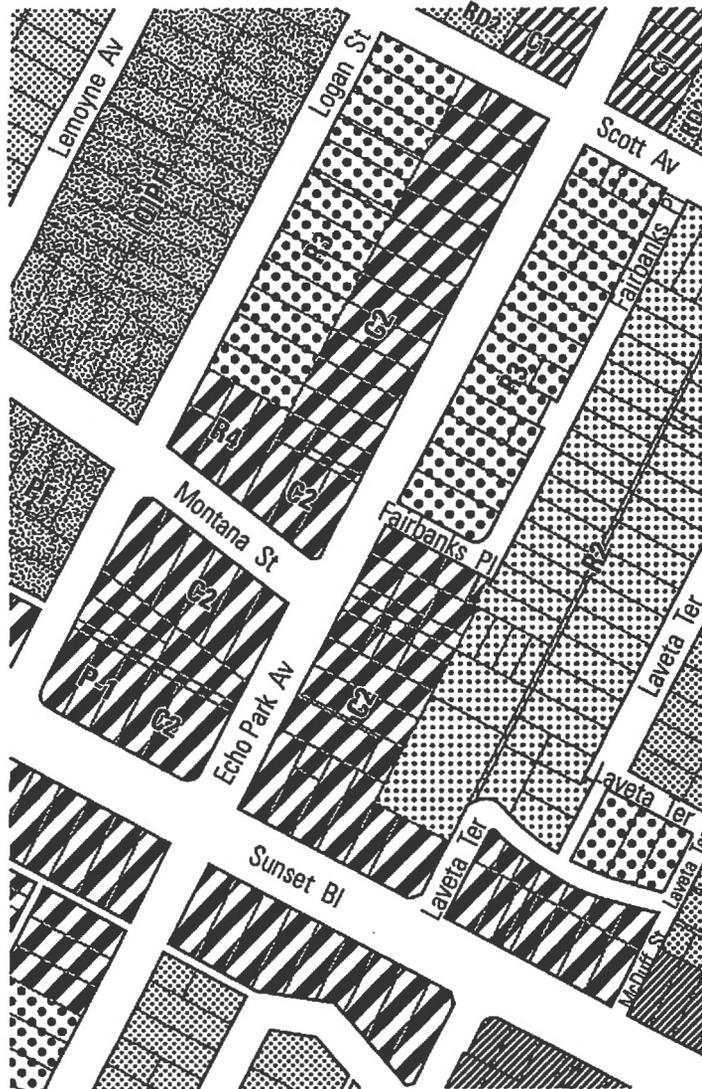
RD2-1VL to [Q]RD2-1VL to prohibit lot ties

(See discussion of Issue 3, Page 20 of the attached Staff Report)

Not to Scale

Echo Park Av  
 From Scott Av to Sunset Bl  
**Plan Land Use & Zoning** (adopted February 17, 1984)

**Exhibit 4**



**Land Use:**

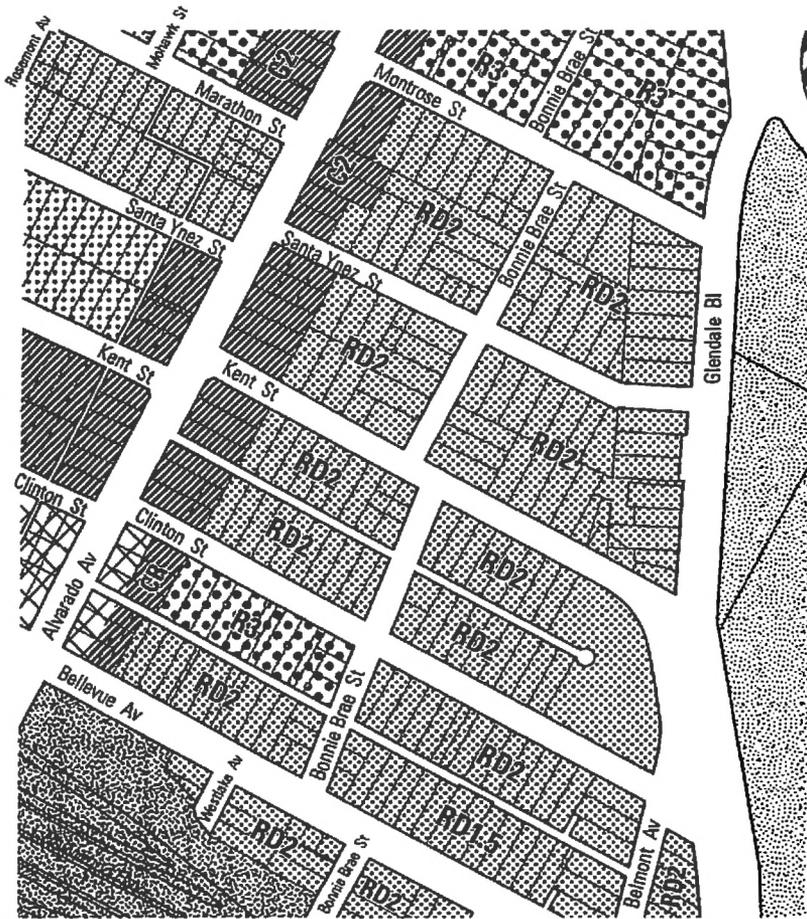
<b>Residential</b>		<b>Corresponding Zones</b>
	Low Medium I	R2, RD3, RD4
	Low Medium II	RD2, RD1.5
	Medium	R3
<b>Commercial</b>		
	Highway Oriented	CR, C1.5, C2, C4, P
	Neighborhood & Office	C1, C1.5, P
	Community	CR, C2, C4, P, PB
<b>Open Space, Public/Quasi-Public</b>		
	Public Facilities	PF

Recommendation: No change  
 (See discussion of Issue 3, Page 20 of the attached Staff Report)

Not to Scale 

Echo Park Residential Area  
 West of Glendale Bl  
**Plan Land Use & Zoning** (adopted February 17, 1984)

**Exhibit 5**



Recommendation: No change  
 (See discussion of Issue 3, Page 20  
 of the attached Staff Report)

**Land Use:**

**Residential**

-  Low Medium I
-  Low Medium II
-  Medium

**Commercial**

-  Highway Oriented
-  Community

**Industrial**

-  Commercial Manufacturing

**Open Space, Public/Quasi-Public**

-  Open Space
-  Public Facilities

**Corresponding Zones**

- R2, RD3, RD4
- RD2, RD1.5
- R3
- CR, C1.5, C2, C4, P
- CR, C2, C4, P, PB

CM, P

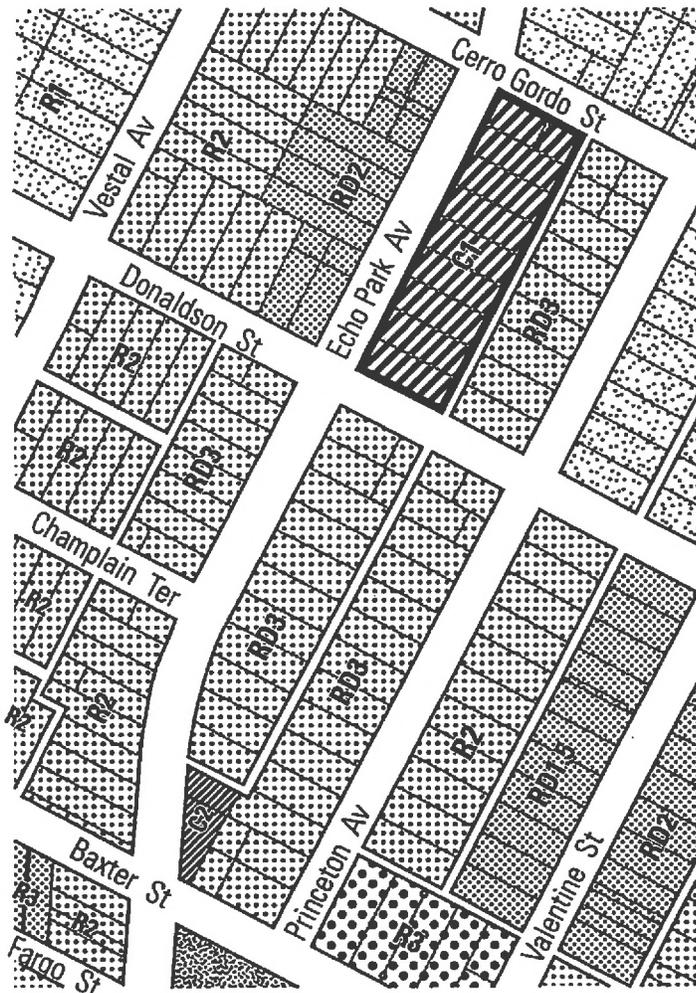
OS, A1

PF

Not to Scale 

Echo Park Av  
 Commercial Lots North of Lucretia Av  
**Plan Land Use & Zoning** (adopted February 17, 1984)

**Exhibit 6a**



**Land Use:**

Residential		Corresponding Zones
	Low	RS, R1, RD6, RD5
	Low Medium I	R2, RD3, RD4
	Low Medium II	RD2, RD1.5
	Medium	R3
Commercial		
	Highway Oriented	CR, C1.5, C2, C4, P
	Neighborhood & Office	C1, C1.5, P
Open Space, Public/Quasi-Public		
	Public Facilities	PF

**Recommendation:**

C1-1VL to [Q]C1-1VL

"Q" Conditions (see full "Q" language in "Exhibit F")

- 1) Limit residential density to 1 unit per 1,200 square feet of lot area
- 2) Limit commercial uses to the ground floor
- 3) Require additional 1/4 space per unit guest parking

(See discussion of Issue 4, Page 22 of the attached Staff Report)

Not to Scale

**Echo Park Av  
Commercial Lots North of Lucretia Av  
Plan Land Use & Zoning** (adopted February 17, 1984)



**Land Use:**

Residential		Corresponding Zones
	Low	RS, R1, RD6, RD5
	Low Medium I	R2, RD3, RD4
	Low Medium II	RD2, RD1.5
Commercial		
	Highway Oriented	CR, C1.5, C2, C4, P
	Neighborhood & Office	C1, C1.5, P

**Recommendation:**

C1-1VL to [Q]C1-1VL

- "Q" Conditions (see full "Q" language in "Exhibit F")
- 1) Limit residential density to 1 unit per 1,200 square feet of lot area
  - 2) Limit commercial uses to the ground floor
  - 3) Require additional 1/4 space per unit guest parking

(See discussion of Issue 4, Page 22 of the attached Staff Report)

Not to Scale

# MITIGATED NEGATIVE DECLARATION MARSH PARK

## Appendices:

- A. Air Quality
- B. Noise
- C. Traffic



**M**ountains  
**R**ecreation  
and  
**C**onservation  
**A**uthority



July  
2012

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**APPENDIX A**  
**AIR QUALITY ANALYSIS**



**AIR QUALITY IMPACT ANALYSIS**  
**MARSH PARK**  
**CITY OF LOS ANGELES, CALIFORNIA**

Prepared for:  
Mountains Recreation & Conservation Authority (MCRA)  
L. A. River Center & Gardens  
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Hans D. Giroux  
Senior Analyst  
Giroux & Associates

Date:  
February 27, 2012

Project No.: P11-048 A

## **CLIMATE AND METEOROLOGY**

### **REGIONAL CLIMATE**

The North Pacific high-pressure cell is the dominant climatic influence over the eastern North Pacific Ocean, particularly during the summer months. This high-pressure cell produces a predominantly northwesterly flow of maritime air over the California coastal waters. During the winter, the Pacific High weakens and moves south, resulting in weaker and less persistent northwesterly winds along the California coast than in the warmer half of the year.

As the air mass approaches the coast of California, this large-scale circulation pattern is modified by local influences. The differential heating between the desert and the adjacent Pacific Ocean modifies the prevailing winds, enhancing them during the warmer half of the year and weakening the winds during the colder portion. On a local and sub-regional basis, the airflow in California is channeled by its mountain ranges and valley. The coastal mountain ranges limit the flow of maritime air into the interior of California. This transition from a cool and damp marine environment to a dry and warm continental climate therefore occurs over a fairly short distance.

### **SOUTH COAST AIR BASIN**

The South Coast Air Basin (SCAB) is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Basin-wide conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidities.

The topography and climate of Southern California combine to produce unhealthy air quality in the South Coast Air Basin. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded quality, especially in inland valleys of the basin.

### **LOCAL METEOROLOGY**

In the Glassel Park area, winds blow primarily from the southwest (30 percent) and south (13 percent), with lower frequencies for the adjacent wind sectors (about 10 percent for west and for southeast, and about 8 percent for east), and still lower frequencies for opposing wind sectors (5 percent each for northwest and for north). Nocturnal drainage winds, especially in the cooler months, blow from the northeast, as do the occasional Santa Ana winds. The strongest average winds are from the west-southwest (7.7 miles per hour [mph], annual average) and southwest (6.9 mph). Except during strong occasional Santa Anas, the lightest winds are normally from the north-northeast (3.6 miles per hour).

## **AIR QUALITY SETTING**

### **AMBIENT AIR QUALITY STANDARDS (AAQS)**

In order to gauge the significance of the air quality impacts of the Marsh Park Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15.0 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—		
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	53 ppb (100 µg/m <sup>3</sup> ) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )		100 ppb (188 µg/m <sup>3</sup> ) (see footnote 8)	None	
Sulfur Dioxide (SO <sub>2</sub> )	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	—	—	Ultraviolet Fluorescence Spectrophotometry (Pararosaniline Method) <sup>9</sup>
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> ) (see footnote 9)	
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 µg/m <sup>3</sup> ) (see footnote 9)	—	
Lead <sup>10</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m <sup>3</sup>	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average <sup>11</sup>	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe); due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		<p style="text-align: center;"><b>No</b></p> <p style="text-align: center;"><b>Federal</b></p> <p style="text-align: center;"><b>Standards</b></p>		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>10</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (09/08/10)

**Table 1  
(continued)**

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g m}^{-3}$  is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr: ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
9. On June 2, 2010, the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO<sub>2</sub> standard of 0.14 ppm and the annual primary SO<sub>2</sub> standard of 0.030 ppm, effective August 23, 2010. The secondary SO<sub>2</sub> standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. National lead standard, rolling 3-month average: final rule signed October 15, 2008.

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California Air Resources Board (09/08/10)

**Table 2  
Health Effects of Major Criteria Pollutants**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>• Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced tolerance for exercise.</li> <li>• Impairment of mental function.</li> <li>• Impairment of fetal development.</li> <li>• Death at high levels of exposure.</li> <li>• Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Motor vehicle exhaust.</li> <li>• High temperature stationary combustion.</li> <li>• Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness.</li> <li>• Reduced visibility.</li> <li>• Reduced plant growth.</li> <li>• Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases.</li> <li>• Irritation of eyes.</li> <li>• Impairment of cardiopulmonary function.</li> <li>• Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of blood function and nerve construction.</li> <li>• Behavioral and hearing problems in children.</li> </ul>
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>• Stationary combustion of solid fuels.</li> <li>• Construction activities.</li> <li>• Industrial processes.</li> <li>• Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced lung function.</li> <li>• Aggravation of the effects of gaseous pollutants.</li> <li>• Aggravation of respiratory and cardio respiratory diseases.</li> <li>• Increased cough and chest discomfort.</li> <li>• Soiling.</li> <li>• Reduced visibility.</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>• Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>• Residential and agricultural burning.</li> <li>• Industrial processes.</li> <li>• Also, formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases respiratory disease.</li> <li>• Lung damage.</li> <li>• Cancer and premature death.</li> <li>• Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Combustion of sulfur-containing fossil fuels.</li> <li>• Smelting of sulfur-bearing metal ores.</li> <li>• Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema).</li> <li>• Reduced lung function.</li> <li>• Irritation of eyes.</li> <li>• Reduced visibility.</li> <li>• Plant injury.</li> <li>• Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO<sub>2</sub>) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO<sub>2</sub> standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. Draft standards were published. The proposed future 8-hour standard was 0.065 ppm. Environmental organizations generally praised this proposal. Most manufacturing, transportation or power generation groups opposed the new standard as economically unwise in an uncertain fiscal climate. In response to these concerns, the revision to the 8-hour federal ozone standard was placed on indefinite hold.

A new federal one-hour standard for nitrogen dioxide (NO<sub>2</sub>) has also recently been adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this revised standard.

## BASELINE AIR QUALITY

Existing levels of ambient air quality and historical trends in the project area are best documented by measurements made by SCAQMD at its Central Los Angeles air monitoring station. This station measures both regional pollution levels such as smog, as well as primary vehicular pollution levels near busy roadways such as carbon monoxide or nitrogen oxides. Pollutants such as particulates (PM-10 and PM-2.5) are also monitored at this location. From these data the following conclusions can be drawn:

1. Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated an average of 4 days a year in the last six years near downtown Los Angeles. The federal 8-hour standard has been exceeded an average of 3 days a year within the same period and the state 8-hour standard 7 times per year. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.
2. PM-10 levels have exceeded the state 24-hour standard on approximately 7 percent of all measurement days. The three times less stringent federal 24 hour-standard has not been exceeded in the last six years. Year to year fluctuations of overall maximum 24-hour PM-10 levels seem to follow no discernable trend, though 2006 had the lowest maximum 24-hour concentration in recent history.
3. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area. PM-2.5 readings have exceeded the federal 24-hour PM-2.5 ambient standard on 5 percent of the measured days per year for the last six years. Similar to PM-10, PM-2.5 readings were lowest in 2006.
4. More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels, even near downtown Los Angeles, never exceed allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NO<sub>x</sub> or CO without any threat of violating applicable AAQS.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future in the proposed project vicinity.

**Table 3**  
**Project Area Air Quality Monitoring Summary – 2004-2009**  
**(Days Standards Were Exceeded and Maximum Observed Levels)**

<b>Pollutant/Standard</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Ozone</b>						
1-Hour > 0.09 ppm (S)	7	2	8	3	3	3
8-Hour > 0.07 ppm (S)	14	4	7	6	6	5
8- Hour > 0.075 ppm (F)	5	2	3	3	3	2
Max. 1-Hour Conc. (ppm)	0.11	0.12	0.11	0.12	0.11	0.14
Max. 8-Hour Conc. (ppm)	0.09	0.10	0.08	0.10	0.09	0.10
<b>Carbon Monoxide</b>						
1-Hour > 20. ppm (S)	0	0	0	0	0	0
1-Hour > 9. ppm (S, F)	0	0	0	0	0	0
Max 1-Hour Conc. (ppm)	4.2	3.9	3.5	3.2	2.9	3.0
Max 8-Hour Conc. (ppm)	3.2	3.0	2.7	2.2	2.0	2.2
<b>Nitrogen Dioxide</b>						
1-Hour > 0.18 ppm (S)	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.16	0.13	0.11	0.10	0.12	0.12
<b>Inhalable Particulates (PM-10)</b>						
24-Hour > 50 µg/m <sup>3</sup> (S)	5/61	3/61	3/59	5/56	2/45	4/60
24-Hour > 150 µg/m <sup>3</sup> (F)	0/61	0/61	0/59	0/56	0/45	0/60
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	72.	69.	58.	77.	77.	72.
<b>Ultra-Fine Particulates (PM-2.5)</b>						
24-Hour > 35 µg/m <sup>3</sup> (F)	31/316	22/350	11/330	20/324	10/332	7/365
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	75.0	73.7	56.2	64.1	78.3	61.7

(S) - State ambient standard; (F) - Federal ambient standard  
Source: SCAQMD Station #087 (Central)

## AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NO<sub>x</sub>) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NO<sub>x</sub> and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 AQMP was approved by the EPA in 2004. The Air Quality Management Plan (AQMP) outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April, 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification sets a later attainment deadline, but also requires the air basin to adopt even more stringent emissions controls.

**Table 4**

**South Coast Air Basin Emissions Forecasts (Emissions in tons/day)**

<b>Pollutant</b>	<b>2005<sup>a</sup></b>	<b>2010<sup>b</sup></b>	<b>2015<sup>b</sup></b>	<b>2020<sup>b</sup></b>
<b>NOx</b>	985	742	580	468
<b>ROG</b>	735	576	526	505
<b>CO</b>	4124	2950	2476	2203
<b>PM-10</b>	281	286	297	307
<b>PM-2.5</b>	103	102	102	103

<sup>a</sup>2005 Base Year.

<sup>b</sup>With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, The 2009 California Almanac of Emission & Air Quality.

In other air quality attainment plan reviews, EPA has disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA has stated that the current attainment plan relies on PM-2.5 control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified deficiencies. If these issues are not resolved within the next several years, federal funding sanctions for transportation projects could result.

Projects such as the proposed Marsh Park project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing “recreational” development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. If a given project incorporates any available transportation control measures that can be implemented on a project-specific basis, and if the scope and phasing of a project are consistent with adopted forecasts as shown in the Regional Comprehensive Plan (RCP), then the regional air quality impact of project growth would not be significant because of planning inconsistency. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

## **AIR QUALITY IMPACT**

### **STANDARDS OF SIGNIFICANCE**

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

- a. Conflicts with or obstructs implementation of the applicable air quality plan.
- b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
- c. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- d. Exposes sensitive receptors to substantial pollutant concentrations.
- e. Creates objectionable odors affecting a substantial number of people.

### **Primary Pollutants**

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

### **Secondary Pollutants**

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental

regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the South Coast Air Quality Management District (SCAQMD) has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines:

<b>Pollutant</b>	<b>Construction</b>	<b>Operations</b>
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

### **Additional Indicators**

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Hazardous air contaminants are also contained within the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust. Such exhaust will be generated by heavy construction equipment.

## CONSTRUCTION ACTIVITY IMPACTS

Dust is typically the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into midrange average values. This assumption may or may not be totally applicable to site-specific conditions on the proposed project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

Average daily PM-10 emissions during site grading and other disturbance are shown in the CalEEMod.2011.1.1 computer model to be about 10 pounds per acre. This estimate presumes the use of reasonably available control measures (RACMs). The SCAQMD requires the use of best available control measures (BACMs) for fugitive dust from construction activities.

Current research in particulate-exposure health suggests that the most adverse effects derive from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. A limited amount of construction activity particulate matter is in the PM-2.5 range. PM-2.5 emissions are estimated to comprise 10-20 percent of PM-10.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard. The deposition distance of most soiling nuisance particulates is less than 100 feet from the source (EPA, 1995).

Exhaust emissions will result from on and off-site heavy equipment. The types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Initial demolition will shift toward grading and construction then for paving, painting, etc. The CalEEMod 2011.1.1 computer model was used to calculate emissions from the following prototype construction equipment fleet:

<b>Demolition</b> 17,300 sf of structure	1 Excavator
	1 Concrete Saw
	1 Dozer
<b>Grading</b> Haul 3,841 CY fill	1 Excavator
	1 Grader
	1 Dozer
	1 Backhoe
<b>Construction</b>	1 Crane
	1 Forklift
	1 Generator Set
	1 Tractor/Loader/Backhoe
	1 Welder
<b>Paving</b>	2 Cement Mixers
	1 Paver
	2 Rollers
	1 Tractor/Loader/Backhoe

Utilizing this indicated equipment fleet, demolition quantities and grading information the following worst case daily emissions are calculated by CalEEMod:

**Construction Activity Emissions**  
**Maximum Daily Emissions (pounds/day)**

Activity	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5	CO <sub>2</sub> (e)
<b>Maximum Daily Emissions</b>	7.3	64.2	36.8	0.0	20.9	3.0	6,899.3
<b>SCAQMD Thresholds</b>	75	100	550	150	150	55	-

Source: CalEEMod.2011.1.1 output in appendix

Peak daily construction activity emissions will be below SCAQMD CEQA thresholds even without application of any possible mitigation measures. Regardless, because of the basin's non-attainment status for PM-10/PM-2.5, SCAQMD recommends use of standard fugitive dust control mitigation measures for any project in the region. Because of the role of NO<sub>x</sub> in basin smog formation, use of reasonably available NO<sub>x</sub> control measures is also recommended. These recommended dust emissions mitigation measures are detailed in the "Mitigation" section of this report.

As previously noted, construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. Public exposure to heavy equipment emissions will be an extremely small fraction of the above dosage assumption. Diesel equipment is also becoming progressively "cleaner" in response to air quality rules on new off-road equipment.

## LOCAL SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Local Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For recreational development, the only source of LST impact would be during construction. LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST pollutant concentration data is currently published for 1, 2 and 5 acre sites for varying distances. This project is approximately 3 acres and therefore the data between 2 and 5 acres was interpolated accordingly. LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. The closest residence to the nearest site perimeter is as close as 25 meters to the closest project boundary feet so that a conservative 25 meter distance was utilized for this analysis.

CalEEMod output provides separate detailed emissions resulting from on-site and off-site construction activities. Onsite activities include dust from grading as well as any construction equipment exhaust emissions when the equipment operates at the site. Off-site impacts include any on-road trucking emissions resulting from hauling activities, vendor and equipment transport as well as construction crew commuting. These off-site impacts are regional in nature, and as they do not affect immediately adjacent residential uses they are excluded from the LST analysis. Only on-site construction emissions are compared to LST thresholds.

Therefore, utilizing data for a 3 acre site and a source receptor distance of 25 meters, the following thresholds are determined (pounds per day):

<b>Los Angeles</b>	<b>CO</b>	<b>NOx</b>	<b>PM-10</b>	<b>PM-2.5</b>
<b>LST Threshold</b>	1,319	126	11	6
<b>Proposed Project On-Site Emissions</b>				
<b>Demolition</b>	22	39	3	2
<b>Grading</b>	22	38	8	5
<b>Construction</b>	14	25	2	2
<b>Paving</b>	17	29	3	3

CalEEMod Output in Appendix (maximum emissions from on-site activities)

All emissions, even without mitigation, are below LST thresholds for construction.

## OPERATIONAL IMPACTS

The greatest project-related air quality concern derives from the new vehicle trips that will be generated by recreational uses at project completion. At project build-out, the proposed site uses are proposed to generate 9 daily trips on weekdays and 284 daily trips on weekends.

Park uses will also generate small quantities of “area source emissions” derived from organic compounds from restroom cleaning products, landscape maintenance, picnic cooking, etc. The contribution of such a source minimal for a park of this size.

Operational emissions for project-related traffic were calculated using CalEEMod 2011.1.1 for an assumed project build-out year of 2012. As seen below, project development will not cause the SCAQMD’s recommended threshold levels to be exceeded. Operational emissions will be at a less-than-significant level.

**Project-Related Emissions Burden (weekend trips)**

Year 2012	Emissions (lbs/day)						
	ROG	NOx	CO	SO <sub>2</sub>	PM-10	PM-2.5	CO <sub>2</sub>
Area Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mobile Sources	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
<b>Total</b>	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
SCAQMD Threshold	55	55	550	150	150	55	-

The project will not cause the SCAQMD’s recommended threshold levels to be exceeded. Operational emissions impacts will be at a less-than-significant level. Occasional special events may occur at the Marsh Park site as permitted by Recreation and Parks. A small daily increase in traffic could accompany such uses. However, the availability of only 43 on-site parking spaces would severely limit event size. The margin of difference between peak weekend trip emissions and SCAQMD CEQA thresholds is so large as to maintain special event air quality impacts as negligible and less-than-significant.

## GREENHOUSE GAS EMISSIONS

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, over the next 13 years (by 2020).
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. The most significant reductions in GHG emissions are expected to occur from increased vehicular efficiency, increased renewable energy and improved structural energy consumption.

## Greenhouse Gas Emissions Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise. On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons MT CO<sub>2</sub> equivalent/year. As part of the Interim GHG Significance Threshold development process for industrial projects, the SCAQMD established a working group of stakeholders that also considered thresholds for commercial or residential projects. A recommendation of a significance threshold of 3,000 MT per year of GHG emissions for non-industrial uses was developed, but never formally adopted. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

### Construction Activity GHG Emissions

The build-out timetable for this project is estimated by CalEEMod to be approximately 16 months. During project construction, the CalEEMod computer model predicts that the constructions activities will generate 165 Metric Tons of annual CO<sub>2</sub>(e) emissions.

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level from 165 metric tons CO<sub>2</sub>(e) is 5.5 metric tons per year. GHG impacts from construction are therefore considered less-than-significant.

### Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO<sub>2</sub>(e) emissions are summarized in the CalEEMod output files found in the appendix of this report.

The total operational and annualized construction emissions are as follows:

<b>Operational Emissions</b>	
<b>Consumption Source</b>	<b>MT CO<sub>2</sub>(e) tons/year</b>
Area	0.0
Energy	0.0
Mobile Source	91.3
Solid Waste	0.1
Water	11.6
Annualized Construction	5.5
<b>Total</b>	<b>108.5</b>

Minor electrical consumption may occur in lighting the restrooms, storage room, or security. The CalEEMod does not provide consumption data for primarily passive park use. The GHG contribution from this source will be minimal.

Total project GHG emissions are much less than the proposed significance threshold of 3,000 MT. GHG emissions are not considered significant.

## **CONSTRUCTION EMISSIONS MITIGATION**

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin and the proximity of existing homes. Recommended mitigation includes:

### **Fugitive Dust Control**

- Apply soil stabilizers or moisten inactive areas.
- Prepare a high wind dust control plan.
- Address previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone

Similarly, ozone precursor emissions (ROG and NO<sub>x</sub>) are calculated to be below SCAQMD CEQA thresholds. However, because of the non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control includes:

### **Exhaust Emissions Control**

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using upgraded (Tier 3 or better) heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

## **APPENDIX**

### **CalEEMod2011.1.1 Computer Model Output**

- **Daily Construction Emissions**
- **Annual Construction Emissions**

**Marsh Park**  
**South Coast Air Basin, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
City Park	3	Acre

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Utility Company</b>	Southern California Edison
<b>Climate Zone</b>	11	<b>Precipitation Freq (Days)</b>	31		

**1.3 User Entered Comments**

- Project Characteristics -
- Land Use - Buildings/Structures
- Construction Phase - Default was 220 days construction
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment - Minimal Equipment Fleet
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

## 2.0 Emissions Summary

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### 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					
2011	7.29	64.17	36.78	0.07	17.73	3.12	20.86	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 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					
2011	7.29	64.17	36.78	0.07	6.44	3.12	9.56	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
<b>Total</b>	<b>1.39</b>	<b>3.12</b>	<b>13.46</b>	<b>0.02</b>	<b>2.01</b>	<b>0.12</b>	<b>2.12</b>	<b>0.03</b>	<b>0.11</b>	<b>0.14</b>		<b>1,882.57</b>		<b>0.11</b>	<b>0.00</b>	<b>1,884.83</b>

### 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
<b>Total</b>	<b>1.39</b>	<b>3.12</b>	<b>13.46</b>	<b>0.02</b>	<b>2.01</b>	<b>0.12</b>	<b>2.12</b>	<b>0.03</b>	<b>0.11</b>	<b>0.14</b>		<b>1,882.57</b>		<b>0.11</b>	<b>0.00</b>	<b>1,884.83</b>

## 3.0 Construction Detail

### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 2011

#### 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					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07		3,603.40		0.44		3,612.57
<b>Total</b>	<b>4.87</b>	<b>39.04</b>	<b>22.27</b>	<b>0.03</b>	<b>0.85</b>	<b>2.07</b>	<b>2.92</b>	<b>0.00</b>	<b>2.07</b>	<b>2.07</b>		<b>3,603.40</b>		<b>0.44</b>		<b>3,612.57</b>

#### 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	0.25	2.61	1.44	0.00	1.85	0.12	1.96	0.00	0.11	0.11		326.36		0.01		326.62
Vendor	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
Worker	0.05	0.05	0.61	0.00	0.10	0.00	0.11	0.00	0.00	0.00		89.42		0.01		89.54
<b>Total</b>	<b>0.30</b>	<b>2.66</b>	<b>2.05</b>	<b>0.00</b>	<b>1.95</b>	<b>0.12</b>	<b>2.07</b>	<b>0.00</b>	<b>0.11</b>	<b>0.11</b>		<b>415.78</b>		<b>0.02</b>		<b>416.16</b>

### 3.2 Demolition - 2011

#### 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					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07	0.00	3,603.40		0.44		3,612.57
<b>Total</b>	<b>4.87</b>	<b>39.04</b>	<b>22.27</b>	<b>0.03</b>	<b>0.85</b>	<b>2.07</b>	<b>2.92</b>	<b>0.00</b>	<b>2.07</b>	<b>2.07</b>	<b>0.00</b>	<b>3,603.40</b>		<b>0.44</b>		<b>3,612.57</b>

#### 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	0.25	2.61	1.44	0.00	0.01	0.12	0.13	0.00	0.11	0.11		326.36		0.01		326.62
Vendor	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
Worker	0.05	0.05	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00		89.42		0.01		89.54
<b>Total</b>	<b>0.30</b>	<b>2.66</b>	<b>2.05</b>	<b>0.00</b>	<b>0.01</b>	<b>0.12</b>	<b>0.14</b>	<b>0.00</b>	<b>0.11</b>	<b>0.11</b>		<b>415.78</b>		<b>0.02</b>		<b>416.16</b>

### 3.3 Grading - 2011

#### 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					6.32	0.00	6.32	3.32	0.00	3.32							0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96		3,471.07		0.42			3,479.82
<b>Total</b>	<b>4.65</b>	<b>37.72</b>	<b>21.48</b>	<b>0.03</b>	<b>6.32</b>	<b>1.96</b>	<b>8.28</b>	<b>3.32</b>	<b>1.96</b>	<b>5.28</b>		<b>3,471.07</b>		<b>0.42</b>			<b>3,479.82</b>

#### 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	2.58	26.38	14.54	0.03	11.28	1.16	12.44	0.04	1.07	1.11		3,304.88		0.13			3,307.51
Vendor	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
Worker	0.07	0.07	0.77	0.00	0.13	0.00	0.13	0.00	0.00	0.01		111.78		0.01			111.93
<b>Total</b>	<b>2.65</b>	<b>26.45</b>	<b>15.31</b>	<b>0.03</b>	<b>11.41</b>	<b>1.16</b>	<b>12.57</b>	<b>0.04</b>	<b>1.07</b>	<b>1.12</b>		<b>3,416.66</b>		<b>0.14</b>			<b>3,419.44</b>

### 3.3 Grading - 2011

#### 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					6.32	0.00	6.32	3.32	0.00	3.32							0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96	0.00	3,471.07		0.42			3,479.82
<b>Total</b>	<b>4.65</b>	<b>37.72</b>	<b>21.48</b>	<b>0.03</b>	<b>6.32</b>	<b>1.96</b>	<b>8.28</b>	<b>3.32</b>	<b>1.96</b>	<b>5.28</b>	<b>0.00</b>	<b>3,471.07</b>		<b>0.42</b>			<b>3,479.82</b>

#### 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	2.58	26.38	14.54	0.03	0.11	1.16	1.28	0.04	1.07	1.11		3,304.88		0.13			3,307.51
Vendor	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
Worker	0.07	0.07	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.01		111.78		0.01			111.93
<b>Total</b>	<b>2.65</b>	<b>26.45</b>	<b>15.31</b>	<b>0.03</b>	<b>0.11</b>	<b>1.16</b>	<b>1.29</b>	<b>0.04</b>	<b>1.07</b>	<b>1.12</b>		<b>3,416.66</b>		<b>0.14</b>			<b>3,419.44</b>

### 3.4 Building Construction - 2011

#### 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	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64		2,422.50		0.35		2,429.78
<b>Total</b>	<b>3.87</b>	<b>24.74</b>	<b>13.75</b>	<b>0.03</b>		<b>1.64</b>	<b>1.64</b>		<b>1.64</b>	<b>1.64</b>		<b>2,422.50</b>		<b>0.35</b>		<b>2,429.78</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

### 3.4 Building Construction - 2011

#### 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	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64	0.00	2,422.50		0.35		2,429.78
<b>Total</b>	<b>3.87</b>	<b>24.74</b>	<b>13.75</b>	<b>0.03</b>		<b>1.64</b>	<b>1.64</b>		<b>1.64</b>	<b>1.64</b>	<b>0.00</b>	<b>2,422.50</b>		<b>0.35</b>		<b>2,429.78</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

### 3.5 Paving - 2011

#### 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57		2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
<b>Total</b>	<b>4.80</b>	<b>29.25</b>	<b>17.24</b>	<b>0.03</b>		<b>2.57</b>	<b>2.57</b>		<b>2.57</b>	<b>2.57</b>		<b>2,400.73</b>		<b>0.43</b>		<b>2,409.76</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.13	0.13	1.53	0.00	0.26	0.01	0.27	0.00	0.01	0.01		223.56		0.01		223.86
<b>Total</b>	<b>0.13</b>	<b>0.13</b>	<b>1.53</b>	<b>0.00</b>	<b>0.26</b>	<b>0.01</b>	<b>0.27</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>		<b>223.56</b>		<b>0.01</b>		<b>223.86</b>

### 3.5 Paving - 2011

#### 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57	0.00	2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
<b>Total</b>	<b>4.80</b>	<b>29.25</b>	<b>17.24</b>	<b>0.03</b>		<b>2.57</b>	<b>2.57</b>		<b>2.57</b>	<b>2.57</b>	<b>0.00</b>	<b>2,400.73</b>		<b>0.43</b>		<b>2,409.76</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.13	0.13	1.53	0.00	0.01	0.01	0.02	0.00	0.01	0.01		223.56		0.01		223.86
<b>Total</b>	<b>0.13</b>	<b>0.13</b>	<b>1.53</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.02</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>		<b>223.56</b>		<b>0.01</b>		<b>223.86</b>

## 4.0 Mobile Detail

### 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	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Unmitigated	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.00	283.80	283.80	186,830	186,830
Total	9.00	283.80	283.80	186,830	186,830

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00

#### 5.0 Energy Detail

### 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	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

### 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	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 5.2 Energy by Land Use - NaturalGas

### 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	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	0.00					0.00	0.00		0.00	0.00							0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00							0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>			<b>0.00</b>

### 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	0.00					0.00	0.00		0.00	0.00							0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00							0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>			<b>0.00</b>

## 7.0 Water Detail

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Vegetation**

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**Marsh Park**  
**South Coast Air Basin, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
City Park	3	Acre

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	11	Precipitation Freq (Days)	31		

**1.3 User Entered Comments**

- Project Characteristics -
- Land Use - Buildings/Structures
- Construction Phase - Default was 220 days construction
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment - Minimal Equipment Fleet
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

## 2.0 Emissions Summary

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### 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					
2011	0.26	1.84	1.06	0.00	0.13	0.11	0.24	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
<b>Total</b>	<b>0.26</b>	<b>1.84</b>	<b>1.06</b>	<b>0.00</b>	<b>0.13</b>	<b>0.11</b>	<b>0.24</b>	<b>0.02</b>	<b>0.11</b>	<b>0.13</b>	<b>0.00</b>	<b>164.75</b>	<b>164.75</b>	<b>0.02</b>	<b>0.00</b>	<b>165.18</b>

#### 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					
2011	0.26	1.84	1.06	0.00	0.05	0.11	0.16	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
<b>Total</b>	<b>0.26</b>	<b>1.84</b>	<b>1.06</b>	<b>0.00</b>	<b>0.05</b>	<b>0.11</b>	<b>0.16</b>	<b>0.02</b>	<b>0.11</b>	<b>0.13</b>	<b>0.00</b>	<b>164.75</b>	<b>164.75</b>	<b>0.02</b>	<b>0.00</b>	<b>165.18</b>

## 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	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
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
<b>Total</b>	<b>0.08</b>	<b>0.18</b>	<b>0.76</b>	<b>0.00</b>	<b>0.10</b>	<b>0.01</b>	<b>0.11</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.05</b>	<b>102.75</b>	<b>102.80</b>	<b>0.01</b>	<b>0.00</b>	<b>103.05</b>

## 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	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
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
<b>Total</b>	<b>0.08</b>	<b>0.18</b>	<b>0.76</b>	<b>0.00</b>	<b>0.10</b>	<b>0.01</b>	<b>0.11</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.05</b>	<b>102.75</b>	<b>102.80</b>	<b>0.01</b>	<b>0.00</b>	<b>103.05</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
<b>Total</b>	<b>0.05</b>	<b>0.39</b>	<b>0.22</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>	<b>32.68</b>	<b>32.68</b>	<b>0.00</b>	<b>0.00</b>	<b>32.76</b>

#### 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	tons/yr										MT/yr					
Hauling	0.00	0.03	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.00	0.00	0.77
<b>Total</b>	<b>0.00</b>	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.72</b>	<b>3.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3.73</b>

### 3.2 Demolition - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
<b>Total</b>	<b>0.05</b>	<b>0.39</b>	<b>0.22</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>	<b>32.68</b>	<b>32.68</b>	<b>0.00</b>	<b>0.00</b>	<b>32.76</b>

#### 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	tons/yr										MT/yr					
Hauling	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.00	0.00	0.77
<b>Total</b>	<b>0.00</b>	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.72</b>	<b>3.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3.73</b>

### 3.3 Grading - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
<b>Total</b>	<b>0.03</b>	<b>0.23</b>	<b>0.13</b>	<b>0.00</b>	<b>0.04</b>	<b>0.01</b>	<b>0.05</b>	<b>0.02</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>18.89</b>	<b>18.89</b>	<b>0.00</b>	<b>0.00</b>	<b>18.94</b>

#### 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	tons/yr										MT/yr					
Hauling	0.02	0.16	0.09	0.00	0.06	0.01	0.07	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
Vendor	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	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.00	0.00	0.57
<b>Total</b>	<b>0.02</b>	<b>0.16</b>	<b>0.09</b>	<b>0.00</b>	<b>0.06</b>	<b>0.01</b>	<b>0.07</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>18.52</b>	<b>18.52</b>	<b>0.00</b>	<b>0.00</b>	<b>18.54</b>

### 3.3 Grading - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
<b>Total</b>	<b>0.03</b>	<b>0.23</b>	<b>0.13</b>	<b>0.00</b>	<b>0.04</b>	<b>0.01</b>	<b>0.05</b>	<b>0.02</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>18.89</b>	<b>18.89</b>	<b>0.00</b>	<b>0.00</b>	<b>18.94</b>

#### 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	tons/yr										MT/yr					
Hauling	0.02	0.16	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
Vendor	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	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.00	0.00	0.57
<b>Total</b>	<b>0.02</b>	<b>0.16</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>18.52</b>	<b>18.52</b>	<b>0.00</b>	<b>0.00</b>	<b>18.54</b>

### 3.4 Building Construction - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
<b>Total</b>	<b>0.14</b>	<b>0.89</b>	<b>0.49</b>	<b>0.00</b>		<b>0.06</b>	<b>0.06</b>		<b>0.06</b>	<b>0.06</b>	<b>0.00</b>	<b>79.09</b>	<b>79.09</b>	<b>0.01</b>	<b>0.00</b>	<b>79.33</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	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	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 3.4 Building Construction - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
<b>Total</b>	<b>0.14</b>	<b>0.89</b>	<b>0.49</b>	<b>0.00</b>		<b>0.06</b>	<b>0.06</b>		<b>0.06</b>	<b>0.06</b>	<b>0.00</b>	<b>79.09</b>	<b>79.09</b>	<b>0.01</b>	<b>0.00</b>	<b>79.33</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	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	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 3.5 Paving - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.02</b>	<b>0.15</b>	<b>0.09</b>	<b>0.00</b>		<b>0.01</b>	<b>0.01</b>		<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>10.89</b>	<b>10.89</b>	<b>0.00</b>	<b>0.00</b>	<b>10.93</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>	<b>0.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>

### 3.5 Paving - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.02</b>	<b>0.15</b>	<b>0.09</b>	<b>0.00</b>		<b>0.01</b>	<b>0.01</b>		<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>10.89</b>	<b>10.89</b>	<b>0.00</b>	<b>0.00</b>	<b>10.93</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>	<b>0.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>

### 4.0 Mobile Detail

#### 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	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Unmitigated	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.00	283.80	283.80	186,830	186,830
Total	9.00	283.80	283.80	186,830	186,830

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00

#### 5.0 Energy Detail

### 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						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	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
NaturalGas Unmitigated	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
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

### 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	tons/yr										MT/yr					
City Park	0	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
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**5.2 Energy by Land Use - NaturalGas**

**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	tons/yr										MT/yr						
City Park	0	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
<b>Total</b>		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

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
<b>Total</b>						0.00	0.00	0.00	0.00

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**6.0 Area Detail**

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**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	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
Unmitigated	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
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 7.0 Water Detail

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**7.1 Mitigation Measures Water**

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					11.55	0.00	0.00	11.62
Unmitigated					11.55	0.00	0.00	11.62
Total	NA	NA	NA	NA	NA	NA	NA	NA

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
Total						11.55	0.00	0.00	11.62

# MITIGATED NEGATIVE DECLARATION MARSH PARK

## Appendices:

- A. Air Quality
- B. Noise
- C. Traffic

**Mountains  
Recreation  
and  
Conservation  
Authority**



July  
2012

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**APPENDIX A**  
**AIR QUALITY ANALYSIS**



**AIR QUALITY IMPACT ANALYSIS**  
**MARSH PARK**  
**CITY OF LOS ANGELES, CALIFORNIA**

Prepared for:  
Mountains Recreation & Conservation Authority (MCRA)  
L. A. River Center & Gardens  
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Hans D. Giroux  
Senior Analyst  
Giroux & Associates

Date:  
February 27, 2012

Project No.: P11-048 A

## **CLIMATE AND METEOROLOGY**

### **REGIONAL CLIMATE**

The North Pacific high-pressure cell is the dominant climatic influence over the eastern North Pacific Ocean, particularly during the summer months. This high-pressure cell produces a predominantly northwesterly flow of maritime air over the California coastal waters. During the winter, the Pacific High weakens and moves south, resulting in weaker and less persistent northwesterly winds along the California coast than in the warmer half of the year.

As the air mass approaches the coast of California, this large-scale circulation pattern is modified by local influences. The differential heating between the desert and the adjacent Pacific Ocean modifies the prevailing winds, enhancing them during the warmer half of the year and weakening the winds during the colder portion. On a local and sub-regional basis, the airflow in California is channeled by its mountain ranges and valley. The coastal mountain ranges limit the flow of maritime air into the interior of California. This transition from a cool and damp marine environment to a dry and warm continental climate therefore occurs over a fairly short distance.

### **SOUTH COAST AIR BASIN**

The South Coast Air Basin (SCAB) is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Basin-wide conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidities.

The topography and climate of Southern California combine to produce unhealthful air quality in the South Coast Air Basin. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded quality, especially in inland valleys of the basin.

### **LOCAL METEOROLOGY**

In the Glassel Park area, winds blow primarily from the southwest (30 percent) and south (13 percent), with lower frequencies for the adjacent wind sectors (about 10 percent for west and for southeast, and about 8 percent for east), and still lower frequencies for opposing wind sectors (5 percent each for northwest and for north). Nocturnal drainage winds, especially in the cooler months, blow from the northeast, as do the occasional Santa Ana winds. The strongest average winds are from the west-southwest (7.7 miles per hour [mph], annual average) and southwest (6.9 mph). Except during strong occasional Santa Anas, the lightest winds are normally from the north-northeast (3.6 miles per hour).

## **AIR QUALITY SETTING**

### **AMBIENT AIR QUALITY STANDARDS (AAQS)**

In order to gauge the significance of the air quality impacts of the Marsh Park Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards								
Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>				
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,5</sup>	Method <sup>7</sup>		
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry		
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )				
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis		
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—				
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis		
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15.0 µg/m <sup>3</sup>				
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Photometry (NDIR)		
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )				
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—				
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	53 ppb (100 µg/m <sup>3</sup> ) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence		
	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )		100 ppb (188 µg/m <sup>3</sup> ) (see footnote 8)			None	
Sulfur Dioxide (SO <sub>2</sub> )	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	—	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) <sup>8</sup>		
	3 Hour	—		—			0.5 ppm (1300 µg/m <sup>3</sup> ) (see footnote 9)	
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 µg/m <sup>3</sup> ) (see footnote 9)			—	
Lead <sup>10</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	—		
	Calendar Quarter	—		1.5 µg/m <sup>3</sup>			Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average <sup>11</sup>	—		0.15 µg/m <sup>3</sup>				
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.25 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		<b>No  Federal  Standards</b>				
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography					
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence					
Vinyl Chloride <sup>10</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography					

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (09/08/10)

**Table 1  
(continued)**

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150  $\mu\text{g}/\text{m}^3$  is equal to or less than one. For PM<sub>2.5</sub>, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
9. On June 2, 2010, the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO<sub>2</sub> standard of 0.14 ppm and the annual primary SO<sub>2</sub> standard of 0.030 ppm, effective August 23, 2010. The secondary SO<sub>2</sub> standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. National lead standard, rolling 3-month average; final rule signed October 15, 2008.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (09/08/10)

**Table 2**  
**Health Effects of Major Criteria Pollutants**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>• Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced tolerance for exercise.</li> <li>• Impairment of mental function.</li> <li>• Impairment of fetal development.</li> <li>• Death at high levels of exposure.</li> <li>• Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Motor vehicle exhaust.</li> <li>• High temperature stationary combustion.</li> <li>• Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness.</li> <li>• Reduced visibility.</li> <li>• Reduced plant growth.</li> <li>• Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases.</li> <li>• Irritation of eyes.</li> <li>• Impairment of cardiopulmonary function.</li> <li>• Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of blood function and nerve construction.</li> <li>• Behavioral and hearing problems in children.</li> </ul>
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>• Stationary combustion of solid fuels.</li> <li>• Construction activities.</li> <li>• Industrial processes.</li> <li>• Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced lung function.</li> <li>• Aggravation of the effects of gaseous pollutants.</li> <li>• Aggravation of respiratory and cardio respiratory diseases.</li> <li>• Increased cough and chest discomfort.</li> <li>• Soiling.</li> <li>• Reduced visibility.</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>• Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>• Residential and agricultural burning.</li> <li>• Industrial processes.</li> <li>• Also, formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases respiratory disease.</li> <li>• Lung damage.</li> <li>• Cancer and premature death.</li> <li>• Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Combustion of sulfur-containing fossil fuels.</li> <li>• Smelting of sulfur-bearing metal ores.</li> <li>• Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema).</li> <li>• Reduced lung function.</li> <li>• Irritation of eyes.</li> <li>• Reduced visibility.</li> <li>• Plant injury.</li> <li>• Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO<sub>2</sub>) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO<sub>2</sub> standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. Draft standards were published. The proposed future 8-hour standard was 0.065 ppm. Environmental organizations generally praised this proposal. Most manufacturing, transportation or power generation groups opposed the new standard as economically unwise in an uncertain fiscal climate. In response to these concerns, the revision to the 8-hour federal ozone standard was placed on indefinite hold.

A new federal one-hour standard for nitrogen dioxide (NO<sub>2</sub>) has also recently been adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this revised standard.

## BASELINE AIR QUALITY

Existing levels of ambient air quality and historical trends in the project area are best documented by measurements made by SCAQMD at its Central Los Angeles air monitoring station. This station measures both regional pollution levels such as smog, as well as primary vehicular pollution levels near busy roadways such as carbon monoxide or nitrogen oxides. Pollutants such as particulates (PM-10 and PM-2.5) are also monitored at this location. From these data the following conclusions can be drawn:

1. Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated an average of 4 days a year in the last six years near downtown Los Angeles. The federal 8-hour standard has been exceeded an average of 3 days a year within the same period and the state 8-hour standard 7 times per year. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.
2. PM-10 levels have exceeded the state 24-hour standard on approximately 7 percent of all measurement days. The three times less stringent federal 24 hour-standard has not been exceeded in the last six years. Year to year fluctuations of overall maximum 24-hour PM-10 levels seem to follow no discernable trend, though 2006 had the lowest maximum 24-hour concentration in recent history.
3. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area. PM-2.5 readings have exceeded the federal 24-hour PM-2.5 ambient standard on 5 percent of the measured days per year for the last six years. Similar to PM-10, PM-2.5 readings were lowest in 2006.
4. More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels, even near downtown Los Angeles, never exceed allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NO<sub>x</sub> or CO without any threat of violating applicable AAQS.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future in the proposed project vicinity.

**Table 3**  
**Project Area Air Quality Monitoring Summary – 2004-2009**  
**(Days Standards Were Exceeded and Maximum Observed Levels)**

<b>Pollutant/Standard</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Ozone</b>						
1-Hour > 0.09 ppm (S)	7	2	8	3	3	3
8-Hour > 0.07 ppm (S)	14	4	7	6	6	5
8- Hour > 0.075 ppm (F)	5	2	3	3	3	2
Max. 1-Hour Conc. (ppm)	0.11	0.12	0.11	0.12	0.11	0.14
Max. 8-Hour Conc. (ppm)	0.09	0.10	0.08	0.10	0.09	0.10
<b>Carbon Monoxide</b>						
1-Hour > 20. ppm (S)	0	0	0	0	0	0
1-Hour > 9. ppm (S, F)	0	0	0	0	0	0
Max 1-Hour Conc. (ppm)	4.2	3.9	3.5	3.2	2.9	3.0
Max 8-Hour Conc. (ppm)	3.2	3.0	2.7	2.2	2.0	2.2
<b>Nitrogen Dioxide</b>						
1-Hour > 0.18 ppm (S)	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.16	0.13	0.11	0.10	0.12	0.12
<b>Inhalable Particulates (PM-10)</b>						
24-Hour > 50 µg/m <sup>3</sup> (S)	5/61	3/61	3/59	5/56	2/45	4/60
24-Hour > 150 µg/m <sup>3</sup> (F)	0/61	0/61	0/59	0/56	0/45	0/60
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	72.	69.	58.	77.	77.	72.
<b>Ultra-Fine Particulates (PM-2.5)</b>						
24-Hour > 35 µg/m <sup>3</sup> (F)	31/316	22/350	11/330	20/324	10/332	7/365
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	75.0	73.7	56.2	64.1	78.3	61.7

(S) - State ambient standard; (F) - Federal ambient standard  
Source: SCAQMD Station #087 (Central)

## AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NO<sub>x</sub>) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NO<sub>x</sub> and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 AQMP was approved by the EPA in 2004. The Air Quality Management Plan (AQMP) outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April, 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification sets a later attainment deadline, but also requires the air basin to adopt even more stringent emissions controls.

**Table 4**

**South Coast Air Basin Emissions Forecasts (Emissions in tons/day)**

<b>Pollutant</b>	<b>2005<sup>a</sup></b>	<b>2010<sup>b</sup></b>	<b>2015<sup>b</sup></b>	<b>2020<sup>b</sup></b>
<b>NOx</b>	985	742	580	468
<b>ROG</b>	735	576	526	505
<b>CO</b>	4124	2950	2476	2203
<b>PM-10</b>	281	286	297	307
<b>PM-2.5</b>	103	102	102	103

<sup>a</sup>2005 Base Year.

<sup>b</sup>With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, The 2009 California Almanac of Emission & Air Quality.

In other air quality attainment plan reviews, EPA has disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA has stated that the current attainment plan relies on PM-2.5 control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified deficiencies. If these issues are not resolved within the next several years, federal funding sanctions for transportation projects could result.

Projects such as the proposed Marsh Park project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing “recreational” development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. If a given project incorporates any available transportation control measures that can be implemented on a project-specific basis, and if the scope and phasing of a project are consistent with adopted forecasts as shown in the Regional Comprehensive Plan (RCP), then the regional air quality impact of project growth would not be significant because of planning inconsistency. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

## **AIR QUALITY IMPACT**

### **STANDARDS OF SIGNIFICANCE**

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

- a. Conflicts with or obstructs implementation of the applicable air quality plan.
- b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
- c. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- d. Exposes sensitive receptors to substantial pollutant concentrations.
- e. Creates objectionable odors affecting a substantial number of people.

### **Primary Pollutants**

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

### **Secondary Pollutants**

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental

regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the South Coast Air Quality Management District (SCAQMD) has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines:

<b>Pollutant</b>	<b>Construction</b>	<b>Operations</b>
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

### **Additional Indicators**

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project’s build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Hazardous air contaminants are also contained within the small diameter particulate matter (“PM-2.5”) fraction of diesel exhaust. Such exhaust will be generated by heavy construction equipment.

## CONSTRUCTION ACTIVITY IMPACTS

Dust is typically the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into midrange average values. This assumption may or may not be totally applicable to site-specific conditions on the proposed project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

Average daily PM-10 emissions during site grading and other disturbance are shown in the CalEEMod.2011.1.1 computer model to be about 10 pounds per acre. This estimate presumes the use of reasonably available control measures (RACMs). The SCAQMD requires the use of best available control measures (BACMs) for fugitive dust from construction activities.

Current research in particulate-exposure health suggests that the most adverse effects derive from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. A limited amount of construction activity particulate matter is in the PM-2.5 range. PM-2.5 emissions are estimated to comprise 10-20 percent of PM-10.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard. The deposition distance of most soiling nuisance particulates is less than 100 feet from the source (EPA, 1995).

Exhaust emissions will result from on and off-site heavy equipment. The types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Initial demolition will shift toward grading and construction then for paving, painting, etc. The CalEEMod 2011.1.1 computer model was used to calculate emissions from the following prototype construction equipment fleet:

<b>Demolition</b> 17,300 sf of structure	1 Excavator
	1 Concrete Saw
	1 Dozer
<b>Grading</b> Haul 3,841 CY fill	1 Excavator
	1 Grader
	1 Dozer
	1 Backhoe
<b>Construction</b>	1 Crane
	1 Forklift
	1 Generator Set
	1 Tractor/Loader/Backhoe
	1 Welder
<b>Paving</b>	2 Cement Mixers
	1 Paver
	2 Rollers
	1 Tractor/Loader/Backhoe

Utilizing this indicated equipment fleet, demolition quantities and grading information the following worst case daily emissions are calculated by CalEEMod:

**Construction Activity Emissions**  
**Maximum Daily Emissions (pounds/day)**

Activity	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5	CO <sub>2</sub> (e)
<b>Maximum Daily Emissions</b>	7.3	64.2	36.8	0.0	20.9	3.0	6,899.3
<b>SCAQMD Thresholds</b>	75	100	550	150	150	55	-

Source: CalEEMod.2011.1.1 output in appendix

Peak daily construction activity emissions will be below SCAQMD CEQA thresholds even without application of any possible mitigation measures. Regardless, because of the basin's non-attainment status for PM-10/PM-2.5, SCAQMD recommends use of standard fugitive dust control mitigation measures for any project in the region. Because of the role of NO<sub>x</sub> in basin smog formation, use of reasonably available NO<sub>x</sub> control measures is also recommended. These recommended dust emissions mitigation measures are detailed in the "Mitigation" section of this report.

As previously noted, construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. Public exposure to heavy equipment emissions will be an extremely small fraction of the above dosage assumption. Diesel equipment is also becoming progressively "cleaner" in response to air quality rules on new off-road equipment.

## LOCAL SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Local Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For recreational development, the only source of LST impact would be during construction. LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST pollutant concentration data is currently published for 1, 2 and 5 acre sites for varying distances. This project is approximately 3 acres and therefore the data between 2 and 5 acres was interpolated accordingly. LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. The closest residence to the nearest site perimeter is as close as 25 meters to the closest project boundary feet so that a conservative 25 meter distance was utilized for this analysis.

CalEEMod output provides separate detailed emissions resulting from on-site and off-site construction activities. Onsite activities include dust from grading as well as any construction equipment exhaust emissions when the equipment operates at the site. Off-site impacts include any on-road trucking emissions resulting from hauling activities, vendor and equipment transport as well as construction crew commuting. These off-site impacts are regional in nature, and as they do not affect immediately adjacent residential uses they are excluded from the LST analysis. Only on-site construction emissions are compared to LST thresholds.

Therefore, utilizing data for a 3 acre site and a source receptor distance of 25 meters, the following thresholds are determined (pounds per day):

<b>Los Angeles</b>	<b>CO</b>	<b>NOx</b>	<b>PM-10</b>	<b>PM-2.5</b>
<b>LST Threshold</b>	1,319	126	11	6
<b>Proposed Project On-Site Emissions</b>				
<b>Demolition</b>	22	39	3	2
<b>Grading</b>	22	38	8	5
<b>Construction</b>	14	25	2	2
<b>Paving</b>	17	29	3	3

CalEEMod Output in Appendix (maximum emissions from on-site activities)

All emissions, even without mitigation, are below LST thresholds for construction.

## OPERATIONAL IMPACTS

The greatest project-related air quality concern derives from the new vehicle trips that will be generated by recreational uses at project completion. At project build-out, the proposed site uses are proposed to generate 9 daily trips on weekdays and 284 daily trips on weekends.

Park uses will also generate small quantities of “area source emissions” derived from organic compounds from restroom cleaning products, landscape maintenance, picnic cooking, etc. The contribution of such a source minimal for a park of this size.

Operational emissions for project-related traffic were calculated using CalEEMod 2011.1.1 for an assumed project build-out year of 2012. As seen below, project development will not cause the SCAQMD’s recommended threshold levels to be exceeded. Operational emissions will be at a less-than-significant level.

**Project-Related Emissions Burden (weekend trips)**

Year 2012	Emissions (lbs/day)						
	ROG	NOx	CO	SO <sub>2</sub>	PM-10	PM-2.5	CO <sub>2</sub>
Area Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mobile Sources	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
<b>Total</b>	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
SCAQMD Threshold	55	55	550	150	150	55	-

The project will not cause the SCAQMD’s recommended threshold levels to be exceeded. Operational emissions impacts will be at a less-than-significant level. Occasional special events may occur at the Marsh Park site as permitted by Recreation and Parks. A small daily increase in traffic could accompany such uses. However, the availability of only 43 on-site parking spaces would severely limit event size. The margin of difference between peak weekend trip emissions and SCAQMD CEQA thresholds is so large as to maintain special event air quality impacts as negligible and less-than-significant.

## GREENHOUSE GAS EMISSIONS

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, over the next 13 years (by 2020).
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. The most significant reductions in GHG emissions are expected to occur from increased vehicular efficiency, increased renewable energy and improved structural energy consumption.

## Greenhouse Gas Emissions Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise. On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons MT CO<sub>2</sub> equivalent/year. As part of the Interim GHG Significance Threshold development process for industrial projects, the SCAQMD established a working group of stakeholders that also considered thresholds for commercial or residential projects. A recommendation of a significance threshold of 3,000 MT per year of GHG emissions for non-industrial uses was developed, but never formally adopted. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

### Construction Activity GHG Emissions

The build-out timetable for this project is estimated by CalEEMod to be approximately 16 months. During project construction, the CalEEMod computer model predicts that the constructions activities will generate 165 Metric Tons of annual CO<sub>2</sub>(e) emissions.

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level from 165 metric tons CO<sub>2</sub>(e) is 5.5 metric tons per year. GHG impacts from construction are therefore considered less-than-significant.

### Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO<sub>2</sub>(e) emissions are summarized in the CalEEMod output files found in the appendix of this report.

The total operational and annualized construction emissions are as follows:

<b>Operational Emissions</b>	
<b>Consumption Source</b>	<b>MT CO<sub>2</sub>(e) tons/year</b>
Area	0.0
Energy	0.0
Mobile Source	91.3
Solid Waste	0.1
Water	11.6
Annualized Construction	5.5
<b>Total</b>	<b>108.5</b>

Minor electrical consumption may occur in lighting the restrooms, storage room, or security. The CalEEMod does not provide consumption data for primarily passive park use. The GHG contribution from this source will be minimal.

Total project GHG emissions are much less than the proposed significance threshold of 3,000 MT. GHG emissions are not considered significant.

## **CONSTRUCTION EMISSIONS MITIGATION**

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin and the proximity of existing homes. Recommended mitigation includes:

### **Fugitive Dust Control**

- Apply soil stabilizers or moisten inactive areas.
- Prepare a high wind dust control plan.
- Address previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone

Similarly, ozone precursor emissions (ROG and NO<sub>x</sub>) are calculated to be below SCAQMD CEQA thresholds. However, because of the non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control includes:

### **Exhaust Emissions Control**

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using upgraded (Tier 3 or better) heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

## **APPENDIX**

### **CalEEMod2011.1.1 Computer Model Output**

- **Daily Construction Emissions**
- **Annual Construction Emissions**

**Marsh Park**  
**South Coast Air Basin, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
City Park	3	Acre

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	11	Precipitation Freq (Days)	31		

**1.3 User Entered Comments**

- Project Characteristics -
- Land Use - Buildings/Structures
- Construction Phase - Default was 220 days construction
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment - Minimal Equipment Fleet
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

## 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					
2011	7.29	64.17	36.78	0.07	17.73	3.12	20.86	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 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					
2011	7.29	64.17	36.78	0.07	6.44	3.12	9.56	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
<b>Total</b>	<b>1.39</b>	<b>3.12</b>	<b>13.46</b>	<b>0.02</b>	<b>2.01</b>	<b>0.12</b>	<b>2.12</b>	<b>0.03</b>	<b>0.11</b>	<b>0.14</b>		<b>1,882.57</b>		<b>0.11</b>	<b>0.00</b>	<b>1,884.83</b>

### 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
<b>Total</b>	<b>1.39</b>	<b>3.12</b>	<b>13.46</b>	<b>0.02</b>	<b>2.01</b>	<b>0.12</b>	<b>2.12</b>	<b>0.03</b>	<b>0.11</b>	<b>0.14</b>		<b>1,882.57</b>		<b>0.11</b>	<b>0.00</b>	<b>1,884.83</b>

## 3.0 Construction Detail

### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 2011

#### 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					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07		3,603.40		0.44		3,612.57
<b>Total</b>	<b>4.87</b>	<b>39.04</b>	<b>22.27</b>	<b>0.03</b>	<b>0.85</b>	<b>2.07</b>	<b>2.92</b>	<b>0.00</b>	<b>2.07</b>	<b>2.07</b>		<b>3,603.40</b>		<b>0.44</b>		<b>3,612.57</b>

#### 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	0.25	2.61	1.44	0.00	1.85	0.12	1.96	0.00	0.11	0.11		326.36		0.01		326.62
Vendor	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
Worker	0.05	0.05	0.61	0.00	0.10	0.00	0.11	0.00	0.00	0.00		89.42		0.01		89.54
<b>Total</b>	<b>0.30</b>	<b>2.66</b>	<b>2.05</b>	<b>0.00</b>	<b>1.95</b>	<b>0.12</b>	<b>2.07</b>	<b>0.00</b>	<b>0.11</b>	<b>0.11</b>		<b>415.78</b>		<b>0.02</b>		<b>416.16</b>

### 3.2 Demolition - 2011

#### 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					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07	0.00	3,603.40		0.44		3,612.57
<b>Total</b>	<b>4.87</b>	<b>39.04</b>	<b>22.27</b>	<b>0.03</b>	<b>0.85</b>	<b>2.07</b>	<b>2.92</b>	<b>0.00</b>	<b>2.07</b>	<b>2.07</b>	<b>0.00</b>	<b>3,603.40</b>		<b>0.44</b>		<b>3,612.57</b>

#### 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	0.25	2.61	1.44	0.00	0.01	0.12	0.13	0.00	0.11	0.11		326.36		0.01		326.62
Vendor	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
Worker	0.05	0.05	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00		89.42		0.01		89.54
<b>Total</b>	<b>0.30</b>	<b>2.66</b>	<b>2.05</b>	<b>0.00</b>	<b>0.01</b>	<b>0.12</b>	<b>0.14</b>	<b>0.00</b>	<b>0.11</b>	<b>0.11</b>		<b>415.78</b>		<b>0.02</b>		<b>416.16</b>

### 3.3 Grading - 2011

#### 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					6.32	0.00	6.32	3.32	0.00	3.32							0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96		3,471.07		0.42			3,479.82
<b>Total</b>	<b>4.65</b>	<b>37.72</b>	<b>21.48</b>	<b>0.03</b>	<b>6.32</b>	<b>1.96</b>	<b>8.28</b>	<b>3.32</b>	<b>1.96</b>	<b>5.28</b>		<b>3,471.07</b>		<b>0.42</b>			<b>3,479.82</b>

#### 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	2.58	26.38	14.54	0.03	11.28	1.16	12.44	0.04	1.07	1.11		3,304.88		0.13		3,307.51
Vendor	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
Worker	0.07	0.07	0.77	0.00	0.13	0.00	0.13	0.00	0.00	0.01		111.78		0.01		111.93
<b>Total</b>	<b>2.65</b>	<b>26.45</b>	<b>15.31</b>	<b>0.03</b>	<b>11.41</b>	<b>1.16</b>	<b>12.57</b>	<b>0.04</b>	<b>1.07</b>	<b>1.12</b>		<b>3,416.66</b>		<b>0.14</b>		<b>3,419.44</b>

### 3.3 Grading - 2011

#### 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					6.32	0.00	6.32	3.32	0.00	3.32							0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96	0.00	3,471.07		0.42			3,479.82
<b>Total</b>	<b>4.65</b>	<b>37.72</b>	<b>21.48</b>	<b>0.03</b>	<b>6.32</b>	<b>1.96</b>	<b>8.28</b>	<b>3.32</b>	<b>1.96</b>	<b>5.28</b>	<b>0.00</b>	<b>3,471.07</b>		<b>0.42</b>			<b>3,479.82</b>

#### 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	2.58	26.38	14.54	0.03	0.11	1.16	1.28	0.04	1.07	1.11		3,304.88		0.13		3,307.51
Vendor	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
Worker	0.07	0.07	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.01		111.78		0.01		111.93
<b>Total</b>	<b>2.65</b>	<b>26.45</b>	<b>15.31</b>	<b>0.03</b>	<b>0.11</b>	<b>1.16</b>	<b>1.29</b>	<b>0.04</b>	<b>1.07</b>	<b>1.12</b>		<b>3,416.66</b>		<b>0.14</b>		<b>3,419.44</b>

### 3.4 Building Construction - 2011

#### 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	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64		2,422.50		0.35		2,429.78
<b>Total</b>	<b>3.87</b>	<b>24.74</b>	<b>13.75</b>	<b>0.03</b>		<b>1.64</b>	<b>1.64</b>		<b>1.64</b>	<b>1.64</b>		<b>2,422.50</b>		<b>0.35</b>		<b>2,429.78</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

### 3.4 Building Construction - 2011

#### 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	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64	0.00	2,422.50		0.35		2,429.78
<b>Total</b>	<b>3.87</b>	<b>24.74</b>	<b>13.75</b>	<b>0.03</b>		<b>1.64</b>	<b>1.64</b>		<b>1.64</b>	<b>1.64</b>	<b>0.00</b>	<b>2,422.50</b>		<b>0.35</b>		<b>2,429.78</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

### 3.5 Paving - 2011

#### 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57		2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
<b>Total</b>	<b>4.80</b>	<b>29.25</b>	<b>17.24</b>	<b>0.03</b>		<b>2.57</b>	<b>2.57</b>		<b>2.57</b>	<b>2.57</b>		<b>2,400.73</b>		<b>0.43</b>		<b>2,409.76</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.13	0.13	1.53	0.00	0.26	0.01	0.27	0.00	0.01	0.01		223.56		0.01		223.86
<b>Total</b>	<b>0.13</b>	<b>0.13</b>	<b>1.53</b>	<b>0.00</b>	<b>0.26</b>	<b>0.01</b>	<b>0.27</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>		<b>223.56</b>		<b>0.01</b>		<b>223.86</b>

### 3.5 Paving - 2011

#### 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57	0.00	2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
<b>Total</b>	<b>4.80</b>	<b>29.25</b>	<b>17.24</b>	<b>0.03</b>		<b>2.57</b>	<b>2.57</b>		<b>2.57</b>	<b>2.57</b>	<b>0.00</b>	<b>2,400.73</b>		<b>0.43</b>		<b>2,409.76</b>

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.13	0.13	1.53	0.00	0.01	0.01	0.02	0.00	0.01	0.01		223.56		0.01		223.86
<b>Total</b>	<b>0.13</b>	<b>0.13</b>	<b>1.53</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.02</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>		<b>223.56</b>		<b>0.01</b>		<b>223.86</b>

### 4.0 Mobile Detail

#### 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	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Unmitigated	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
<b>Total</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.00	283.80	283.80	186,830	186,830
<b>Total</b>	9.00	283.80	283.80	186,830	186,830

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00

#### 5.0 Energy Detail

### 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	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

### 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	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00

## 5.2 Energy by Land Use - Natural Gas

### Mitigated

	Natural Gas 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	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

### 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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>

## 7.0 Water Detail

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Vegetation**

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**Marsh Park**  
**South Coast Air Basin, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
City Park	3	Acre

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Utility Company</b>	Southern California Edison
<b>Climate Zone</b>	11	<b>Precipitation Freq (Days)</b>	31		

**1.3 User Entered Comments**

- Project Characteristics -
- Land Use - Buildings/Structures
- Construction Phase - Default was 220 days construction
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment - Minimal Equipment Fleet
- Off-road Equipment - Minimal equipment fleet
- Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

## 2.0 Emissions Summary

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### 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					
2011	0.26	1.84	1.06	0.00	0.13	0.11	0.24	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
<b>Total</b>	<b>0.26</b>	<b>1.84</b>	<b>1.06</b>	<b>0.00</b>	<b>0.13</b>	<b>0.11</b>	<b>0.24</b>	<b>0.02</b>	<b>0.11</b>	<b>0.13</b>	<b>0.00</b>	<b>164.75</b>	<b>164.75</b>	<b>0.02</b>	<b>0.00</b>	<b>165.18</b>

#### 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					
2011	0.26	1.84	1.06	0.00	0.05	0.11	0.16	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
<b>Total</b>	<b>0.26</b>	<b>1.84</b>	<b>1.06</b>	<b>0.00</b>	<b>0.05</b>	<b>0.11</b>	<b>0.16</b>	<b>0.02</b>	<b>0.11</b>	<b>0.13</b>	<b>0.00</b>	<b>164.75</b>	<b>164.75</b>	<b>0.02</b>	<b>0.00</b>	<b>165.18</b>

## 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	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
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
<b>Total</b>	<b>0.08</b>	<b>0.18</b>	<b>0.76</b>	<b>0.00</b>	<b>0.10</b>	<b>0.01</b>	<b>0.11</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.05</b>	<b>102.75</b>	<b>102.80</b>	<b>0.01</b>	<b>0.00</b>	<b>103.05</b>

## 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	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
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
<b>Total</b>	<b>0.08</b>	<b>0.18</b>	<b>0.76</b>	<b>0.00</b>	<b>0.10</b>	<b>0.01</b>	<b>0.11</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.05</b>	<b>102.75</b>	<b>102.80</b>	<b>0.01</b>	<b>0.00</b>	<b>103.05</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
<b>Total</b>	<b>0.05</b>	<b>0.39</b>	<b>0.22</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>	<b>32.68</b>	<b>32.68</b>	<b>0.00</b>	<b>0.00</b>	<b>32.76</b>

#### 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	tons/yr										MT/yr					
Hauling	0.00	0.03	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.00	0.00	0.77
<b>Total</b>	<b>0.00</b>	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.72</b>	<b>3.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3.73</b>

### 3.2 Demolition - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
<b>Total</b>	<b>0.05</b>	<b>0.39</b>	<b>0.22</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>	<b>32.68</b>	<b>32.68</b>	<b>0.00</b>	<b>0.00</b>	<b>32.76</b>

#### 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	tons/yr										MT/yr					
Hauling	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.00	0.00	0.77
<b>Total</b>	<b>0.00</b>	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.72</b>	<b>3.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3.73</b>

### 3.3 Grading - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
<b>Total</b>	<b>0.03</b>	<b>0.23</b>	<b>0.13</b>	<b>0.00</b>	<b>0.04</b>	<b>0.01</b>	<b>0.05</b>	<b>0.02</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>18.89</b>	<b>18.89</b>	<b>0.00</b>	<b>0.00</b>	<b>18.94</b>

#### 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	tons/yr										MT/yr					
Hauling	0.02	0.16	0.09	0.00	0.06	0.01	0.07	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
Vendor	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	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.00	0.00	0.57
<b>Total</b>	<b>0.02</b>	<b>0.16</b>	<b>0.09</b>	<b>0.00</b>	<b>0.06</b>	<b>0.01</b>	<b>0.07</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>18.52</b>	<b>18.52</b>	<b>0.00</b>	<b>0.00</b>	<b>18.54</b>

### 3.3 Grading - 2011

#### 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	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
<b>Total</b>	<b>0.03</b>	<b>0.23</b>	<b>0.13</b>	<b>0.00</b>	<b>0.04</b>	<b>0.01</b>	<b>0.05</b>	<b>0.02</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>18.89</b>	<b>18.89</b>	<b>0.00</b>	<b>0.00</b>	<b>18.94</b>

#### 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	tons/yr										MT/yr					
Hauling	0.02	0.16	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
Vendor	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	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.00	0.00	0.57
<b>Total</b>	<b>0.02</b>	<b>0.16</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>18.52</b>	<b>18.52</b>	<b>0.00</b>	<b>0.00</b>	<b>18.54</b>

### 3.4 Building Construction - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
<b>Total</b>	<b>0.14</b>	<b>0.89</b>	<b>0.49</b>	<b>0.00</b>		<b>0.06</b>	<b>0.06</b>		<b>0.06</b>	<b>0.06</b>	<b>0.00</b>	<b>79.09</b>	<b>79.09</b>	<b>0.01</b>	<b>0.00</b>	<b>79.33</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	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	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 3.4 Building Construction - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
<b>Total</b>	<b>0.14</b>	<b>0.89</b>	<b>0.49</b>	<b>0.00</b>		<b>0.06</b>	<b>0.06</b>		<b>0.06</b>	<b>0.06</b>	<b>0.00</b>	<b>79.09</b>	<b>79.09</b>	<b>0.01</b>	<b>0.00</b>	<b>79.33</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	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	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 3.5 Paving - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.02</b>	<b>0.15</b>	<b>0.09</b>	<b>0.00</b>		<b>0.01</b>	<b>0.01</b>		<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>10.89</b>	<b>10.89</b>	<b>0.00</b>	<b>0.00</b>	<b>10.93</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>	<b>0.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>

### 3.5 Paving - 2011

#### 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	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.02</b>	<b>0.15</b>	<b>0.09</b>	<b>0.00</b>		<b>0.01</b>	<b>0.01</b>		<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>10.89</b>	<b>10.89</b>	<b>0.00</b>	<b>0.00</b>	<b>10.93</b>

#### 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	tons/yr										MT/yr					
Hauling	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	0.00
Vendor	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	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>	<b>0.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.96</b>

## 4.0 Mobile Detail

### 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	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Unmitigated	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.00	283.80	283.80	186,830	186,830
Total	9.00	283.80	283.80	186,830	186,830

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00

#### 5.0 Energy Detail

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### 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						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	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
NaturalGas Unmitigated	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
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

### 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	tons/yr										MT/yr					
City Park	0	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
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 5.2 Energy by Land Use - NaturalGas

#### 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	tons/yr										MT/yr					
City Park	0	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
<b>Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 6.0 Area Detail

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#### 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	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
Unmitigated	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
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					11.55	0.00	0.00	11.62
Unmitigated					11.55	0.00	0.00	11.62
Total	NA	NA	NA	NA	NA	NA	NA	NA

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
Total						11.55	0.00	0.00	11.62

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
<b>Total</b>						<b>11.55</b>	<b>0.00</b>	<b>0.00</b>	<b>11.62</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.05	0.00	0.00	0.12
Unmitigated					0.05	0.00	0.00	0.12
<b>Total</b>	<b>NA</b>							

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.26					0.05	0.00	0.00	0.12
<b>Total</b>						<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.26					0.05	0.00	0.00	0.12
<b>Total</b>						<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>

## 9.0 Vegetation

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**APPENDIX B**  
**NOISE ANALYSIS**



**NOISE IMPACT ANALYSIS**  
**MARSH PARK**  
**CITY OF LOS ANGELES, CALIFORNIA**

Prepared for:

Prepared for:  
Mountains Recreation & Conservation Authority (MCRA)  
L. A. River Center & Gardens  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065

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Hans D. Giroux  
Senior Analyst  
Giroux & Associates

Date:

May 13, 2012

Project No.: P11-048 N

## NOISE SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is defined as unwanted sound. Acoustic energy is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The unit of sound pressure ratioed to the lowest level detectable by a young person with good auditory acuity is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, decibels are on a logarithmic scale in order to keep sound pressure level values at a convenient and manageable number. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called "A-weighting," written as "dB(A)." Any noise levels expressed in the following discussion as "dB" should be understood to be dB(A).

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The 24-hour noise descriptor with a specified evening and nocturnal penalty is called the Community Noise Equivalent Level (CNEL). CNEL's are a weighted average of hourly Leq's.

CNELs are calculated by averaging observed noise levels from 7 a.m. to 7 p.m., noise levels from 7-10 p.m. with the addition of plus 5 dB, and levels from 10 p.m. to 7 a.m. plus 10 dB to account for heightened nocturnal noise sensitivity. The CNEL scale is specified by the City of Los Angeles for community noise analysis.

A noise level of 65 dB CNEL is the threshold where ambient noise begins to intrude into the ability to carry on a conversation. An exterior noise exposure of 65 dB CNEL is therefore the most common noise/land use compatibility guideline for new residential dwellings in California. Because commercial or industrial uses are not occupied on a 24-hour basis, the exterior noise exposure standard for less sensitive land uses is somewhat less stringent.

## NOISE COMPATIBILITY STANDARDS

Table 1 shows the noise/land use compatibility guideline for City of Los Angeles land uses as contained in the Noise Element of the City of Los Angeles General Plan. Exposures up to 65 dB CNEL for playground and park uses are considered normally acceptable. Levels of up to 75 dB CNEL are considered conditionally acceptable if all measures to reduce such exposure have been taken. Noise levels above 75 dB CNEL are considered normally unacceptable except in unusual circumstances.

## NOISE ORDINANCE

The proposed project will be owned and operated by the Mountains Recreation and Conservation Authority (MRCA). Section 3.15 of the MRCA's *Ordinance Establishing Park Rules and Regulations and Prescribing The Punishment For Violation Thereof* addresses disruptive conduct, including noise. It states: "No person shall willfully disturb another person by loud and unreasonable noise, or any other activity which maliciously and willfully disturbs the peace of another person. Violation of this section is punishable pursuant to § 5.0(a) and §6.2.1(b)(2)." Section 5.0(a) of the Ordinance provides that: "(a) Unless otherwise specified, any violation of any provision of this Ordinance shall be a misdemeanor punishable by a maximum fine of one thousand dollars (\$1,000), or imprisonment in the county jail for six months, or both such fine and imprisonment, pursuant to Public Resources Code § 5786.17." Section 6.2.1(b)(2) of the MRCA's ordinance provides additional details on misdemeanor offenses under the Ordinance. MRCA park rangers are empowered to issue citations for violations of the Ordinance.

The City's noise standards for non-transportation sources are articulated in the Noise Ordinance. The Ordinance regulates noise from one land use crossing the property line of an adjacent property line. Chapter IX of the Los Angeles Municipal Code restricts the level of noise that one type of land use or activity may broadcast across an adjacent land use. Noise ordinance standards are stated with respect to ambient levels found without the contribution of an identified noise source. If ambient levels are low, Section 111.03 of the Los Angeles Municipal Code established presumed ambient noise levels as a function of zoning and times of day. Table 2 shows the presumed ambient noise levels to be used as an evaluation baseline.

During the daytime, some deviation from these thresholds is allowed for short-term (less than 15 minute) noise generation. The nocturnal noise standard has no provisions for any deviation for purposes of sleep protection. The noise ordinance numerical standards apply to "stationary" sources of noise generation (mechanical equipment such as air conditioning, refrigeration, heating, pumping, etc.). A number of special noise generation activities have specific prohibitions as to time, manner or place. If such activities are not specifically prohibited by ordinance, the noise constraint for general stationary sources is that they may not increase the ambient level by more than 5 dB above ambient (measured or presumed minimum) levels shown in Table 2.

Recreational activities or public assembly in a park may generate nuisance noise associated with park user exuberant enjoyment. Two sections of the municipal code address this issue. Sectionj 41.57 of the municipal code prohibits the creation of "loud or raucous noise" in or upon any

public park or other public place. Loud and raucous noise is particularly aimed at amplified noise that unreasonably annoys surrounding persons. The term unreasonably is to be evaluated in terms of “hour, place, nature or circumstance of the emission or transmission of any such loud or raucous noise.”

Section 112.01 of the code provides some numerical guidance on noise levels that could be considered excessive from amplified voice or music. Section 112.01(b) considers audibility of radios, p.a. systems, etc. perceptible beyond 150 feet from the source within any adjacent residential occupancy to be a violation of the noise ordinance unless the source is operating under a Special Permit. Section 112.01(c) similarly considers a +5 dB increase above ambient noise levels at any off-site residential property line to also be a potential violation of the ordinance.

**Table 1**  
**City of Los Angeles Land Use Compatibility**

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

**Table 2**

**City of Los Angeles Noise Ordinance**

Daytime levels are to be used from 7:00 a.m. to 10:00 p.m. and nighttime levels from 10:00 p.m. to 7:00 a.m.)

ZONE	PRESUMED AMBIENT NOISE LEVEL (dB(A))	
	DAY	NIGHT
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

At the boundary line between two zones, the presumed ambient noise level of the quieter zone shall be used.

If the noise occurs more than 5 but less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB.

If the noise occurs five minutes or less in any period of 60 consecutive minutes, between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB additional.

## BASELINE NOISE LEVELS

Short term on-site noise measurements were made in order to document existing baseline levels in the project area. These help to serve as a basis for projecting future noise exposure from the project upon the surrounding community. Noise monitoring was conducted on Tuesday, December 20, 2011, from 1:30 p.m. – 2:30 p.m., at three area locations. Measurement locations are shown in **Figure 1** and summarized below.

**Measured Noise Levels (dBA)**

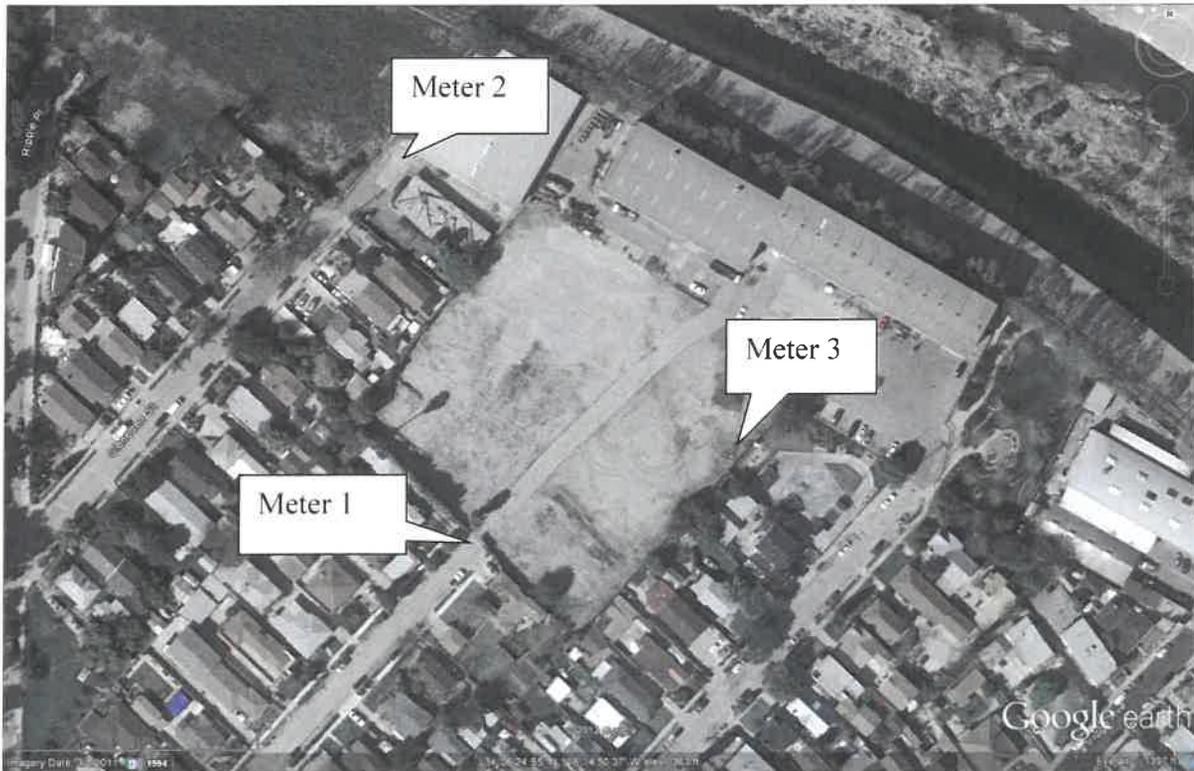
Site No.	Leq	Lmax	Lmin	L10	L33	L50	L90
1	52.0	63.0	48.0	53.0	51.5	51.0	49.5
2	57.1	63.5	53.5	58.0	57.0	56.0	55.5
3	65.1	82.0	51.0	68.0	64.0	62.0	56.0

Meters 1 and 2 are considered representative of homes adjacent to the park away from the skate park. Meter 3 is representative of homes between the skate park and the proposed Marsh Park. The skate park was being used by six skaters and the ramps are made of metal which clangs audibly when in use. Observed noise levels near the skate park were therefore much higher than other areas surrounding the project area.

Monitoring experience shows that 24-hour weighted CNEL's can be reasonably well estimated from mid-afternoon noise readings. CNEL's are approximately equal to mid-afternoon Leq plus 2 dB (Caltrans Technical Noise Supplement, 2009). In locations not immediately adjacent to the skate park, monitoring shows Leq's in the 52-57 dB range. This would equate to possible CNELs in the 54-59 dB level. Such CNELs are estimated to be within the Los Angeles park use noise compatibility guidelines. There are no ambient noise constraints to project development as proposed.

Although Leq levels are higher near the skate park, a block wall will separate Marsh Park from nearby residences. Also, usable areas of Marsh Park are set back from the skate park and attenuation from distance spreading losses will reduce noise levels.

**Figure 1 Noise Meter Locations**



Meter 1: Northern terminus - Rosanna St, future park driveway entrance.

Meter 2: Northern terminus - Gleneden St, west side of proposed park.

Meter 3: West side of existing Skate Park-east side of proposed park.

## **NOISE SIGNIFICANCE CRITERIA**

Noise impacts are considered significant if they result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

“Substantial” for noise analyses is generally a +3 dB increase because humans are not able to readily discern noise level differences of less than 3 dB under ambient conditions. The +3 dB threshold is typically applied to traffic (roadway, airport, rail, etc.) sources because such sources are exempt from local ordinance control. However, a +3 dB increase requires a doubling of traffic volumes because of the logarithmic nature of the decibel scale. Few projects individually cause a doubling of traffic volumes near an already noisy source.

Possible violations of noise ordinance standards would also be considered a potentially significant impact under CEQA. Compliance with ordinance standards is presumptive evidence of a less-than-significant impact. However, there could still be a noise nuisance created by unusual time, place or nature of the event even if there is no violation of the ordinance. Reliance on the ordinance standards may thus require project design features that further minimize nuisance impact potential.

## **SOURCES OF IMPACT**

There are several characteristic noise sources are typically identified with recreational development such as proposed at the project site. Construction activities will create short-term noise increases near the project sites. Upon completion, project-related traffic may cause a small incremental increase in area-wide noise levels throughout the project area. Outdoor project activities will entail recreational activities and associated noise. CEQA guidelines require evaluation of any change in the existing environment.

## CONSTRUCTION NOISE IMPACTS

Construction noise is typically governed by ordinance limits on allowable times of equipment operations. The City of Los Angeles limits construction activities to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.

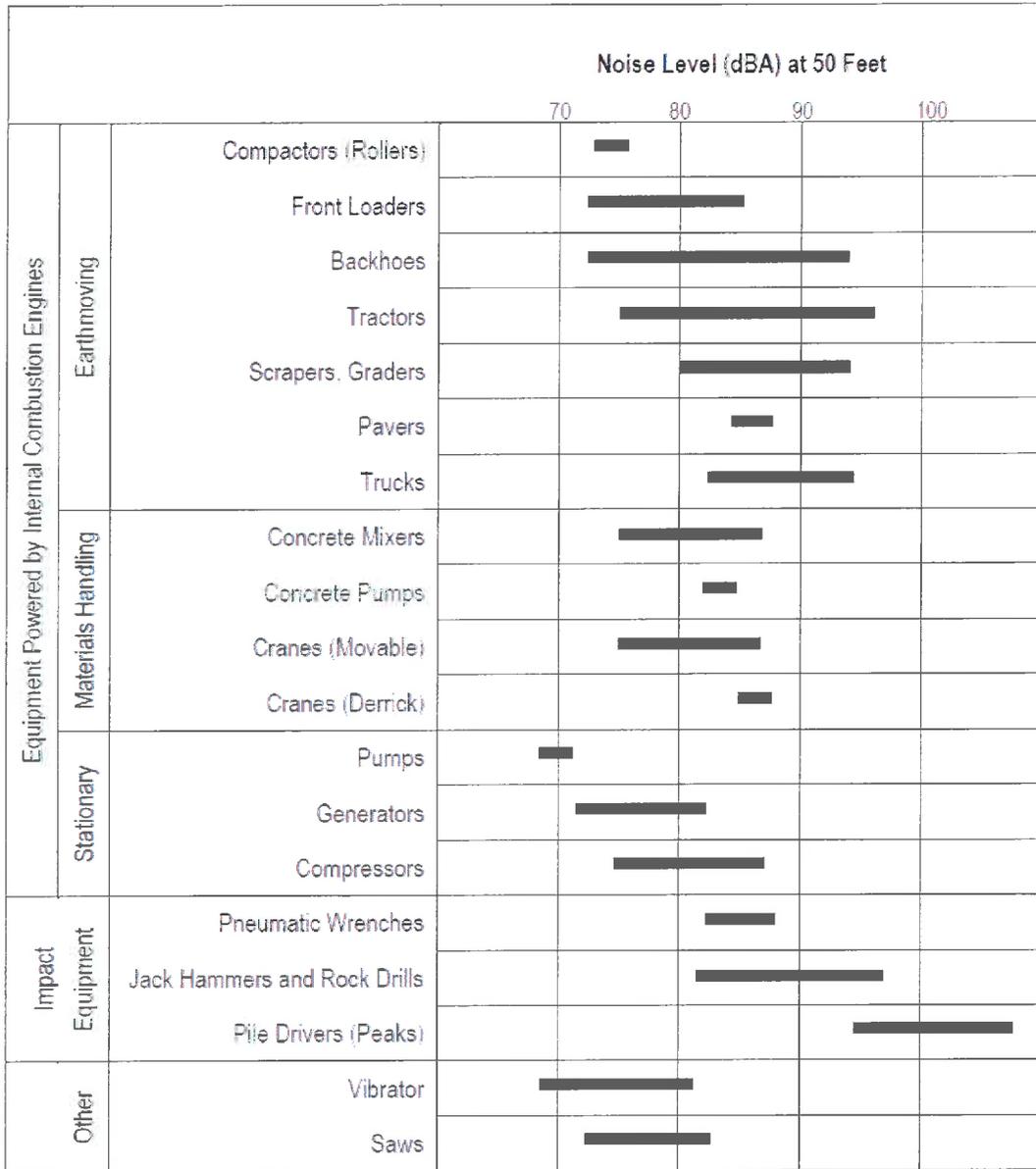
In addition, Section 112.05 of the Los Angeles Building Code specifies the maximum noise level of powered equipment or powered hand tools. Use of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited. However, the above noise limitation does not apply where compliance is technically infeasible (Section 112.05, Los Angeles Municipal Code). "Technically infeasible" means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment. An inability to reduce construction equipment noise exposure to 75 dBA or less at any off-site, noise sensitive use would be considered a significant, but temporary, noise impact.

Construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used which changes during the course of the project. Construction noise tends to occur in discrete phases dominated initially by demolition of the existing on-site structures and then for earth-moving sources and later for finish construction. Physical facilities construction for this project is very minimal. Only grading is anticipated to cause a potential noise disturbance.

As shown in Figure 2, heavy equipment noise can exceed 90 dB(A) and averages about 85 dB(A) at 50 feet from the source when the equipment is operating at typical loads. Most heavy equipment operates with varying load cycles over any extended period of time. The upper end of the noise generation range shown in Figure 2 represents short-term effects, while the longer term averages are most representative of the lower end of the indicated noise curves.

Construction noise exposure can be further worsened when several pieces of equipment operate in close proximity. Because of the logarithmic nature of decibel addition, two equally loud pieces of equipment will be +3 dB louder than either one individually. Three simultaneous sources are +5 dB louder than any single source. Thus, while average operational equipment noise levels are perhaps 5 dB less than at peak power, simultaneous equipment operation can still yield an apparent noise strength equal to any individual source at peak noise output. Whereas the average heavy equipment reference noise level is 85 dB(A), short-term levels from either peak power or from several pieces operating in close proximity can be as high as 90 dB(A).

**Figure 2**  
**Typical Construction Equipment**  
**Noise Generation Levels**



Source: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment and Operations."

Point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The loudest construction activities would require almost 280 feet of distance between the source and a nearby receiver to reduce the peak 90 dB source strength to the generally acceptable 75 dB exterior exposure level specified in Section 112.05 of the City Building Code.

The project site is surrounded by residential uses on three sides of the park perimeter. Thus there are noise sensitive land uses which are within 280 feet of heavy construction equipment operations which may be potentially impacted. A construction noise mitigation plan must be developed and implemented. The use of temporary sound curtains or smaller equipment can typically mitigate construction noise though unlikely to less-than-significant levels. A comprehensive list of these mitigation measures is provided at the end of this report in the "Mitigation" section.

Another potential noise impact resulting from construction of the proposed project is ground-borne vibration. Perceptible ground-borne vibration is typically associated with blasting operations and the use of pile drivers, neither of which would be used during construction of the proposed project. The vibration level of a small dozer that may be used is a peak particle velocity (PPV) of 0.003 inches/second (IPS) (FTA Handbook, 2006) at 25 feet. The damage threshold for extremely sensitive structures is 0.12 IPS. The vibration level from a small dozer is 40 times less than the most stringent damage threshold.

Maximum vibration would result during brief uses of a jackhammer to break up demolished structure foundations. The stated PPV for jackhammers is 0.035 IPS at 25 feet. This is still three times lower than any threshold of even possible minor damage. As such, no excessive ground-borne vibration would be created by the proposed project, and; therefore, impacts due to project-generated ground-borne vibrations are less than significant.

## **ON-SITE NOISE GENERATION**

### **Vehicular Impacts**

Park access is controlled by gates, and will be open from sun-up to sun-down. The park includes a 43 space parking lot. In the unlikely event that 43 vehicles all arrived or departed in a single hour the resultant noise level would be 46 dB Leq at 50 feet from source. This is less than the presumed daytime ambient level for residential use of 50 dB as well as lower than the ambient noise level and would not be detectable. The proposed block wall will separate the parking lot from adjacent residences and will provide additional vehicular noise attenuation. Almost all residences surrounding the site are single story units such that the block wall would cause a break in the line-of-sight to the residences.

The picnic shelter is sized to be able to accommodate seating for 200 persons. However, groups reserving the picnic shelter for special events will be responsible to obtain a permit. The MRCA will have the ability to impose restrictions on the number of attendees and vehicles as part of special event permitting and events would be evaluated on an individual basis.

The picnic shelter is in the northwest portion of the site. Only the existing residences at the end of Gleneden Street and the future residences (Ripple Place) at the northwestern terminus of Gleneden Street will be impacted. Observed existing ambient noise levels in the vicinity of the picnic shelter were 57 dB Leq.

From a review of the acoustical literature, very little quantitative information is available on noise levels from park users or from crowds in public gatherings. In addition, the noise levels produced are highly dependent on the nature of the activity that draws the crowd (e.g., speech, music, and so on). Human voices can generate a wide range of sound levels, and different people will vocalize differently under the same circumstances. Notwithstanding this variability, logical assumptions can yield estimates from which conclusions may be reached. A single person cheering at a moderately enthusiastic level can produce noise levels ranging anywhere from 80 dB to 100 dB at 3 feet in front of the person. A loud voice level of 90 dB at 3 feet would be reduced to 50 dB at a 300-foot distance through geometrical spreading of sound waves. The presumed ambient daytime residential level is 50 dB. The short-term standard is 60 dB. Loud human voice noise generation could be in excess of the ordinance standard to a distance of 100 feet for short periods the source and out to 300 feet for long-term noise generation.

Portable music and loud voices would typically comprise the bulk of public assembly noise that might be considered a nuisance at the nearest neighbors. Because such parties mainly occur during the day, daytime noise standards apply. Noise levels for social functions likely to occasionally occur at the park that involve amplified music can be as loud as 75 dB at a measured reference distance of 20 feet from the music or conversation source. Under line-of-sight conditions, spreading losses would reduce this noise level to 55 dB within 200 feet of the activity. Section 112.01(c) of the municipal code restricts noise levels to +5 dB above ambient. If the presumed ambient level at homes near the project site is 50 dB, noise levels exceeding 55 dB could violate the ordinance. Such levels would also be audible beyond the 150 foot limit specified in Section 112.01(b). Special functions (parties, fund raisers, community fairs, etc.) could cause a localized violation of the City's noise ordinance if they involved amplified music. Groups that plan such functions must therefore obtain a special events permit that temporarily suspends the ordinance limits. The permit must also establish strict limits on time, duration, location and other site-specific conditions that minimize potential noise nuisance.

A wrap around continuation of the proposed block wall around the entire north western project perimeter would assist in noise mitigation (currently a decorative fence is proposed to the west of the picnic shelter) and would provide approximately 6 dB of noise attenuation. The bulk of the noise impacts would be incurred by the immediate adjacent residences. Farther from the source, these residences would block noise for farther tiers of development.

## SUMMARY

Construction activities from project development should not affect the nearest off-site residential uses. Recommended mitigation measures to ensure compliance with City of Los Angeles Noise Standards would protect the adjacent residential properties and include the following:

- Construction activities are limited to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.
- All construction equipment shall be properly tuned and muffled according to manufacturer's specifications.
- Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited unless no means exist to reduce such noise below 75 dBA.
- Noisy construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be constructed as far as possible from the nearest noise- and vibration- sensitive land uses.
- The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized. Examples include the use of drills, jackhammers, and pile drivers.
- Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high levels of noise.
- The Proposed Project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.
- All construction truck traffic shall be restricted to truck routes approved by the City of Los Angeles Department of Building and Safety, which shall avoid residential areas and other sensitive receptors to the extent feasible.
- The project contractor shall use power construction equipment with state-of-the art noise shielding and muffling devices.
- The Proposed Project shall comply with the City of Los Angeles Building Regulations Ordinance No. 178048, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code, or any discretionary approval for the project site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City of Los Angeles Department of Building and Safety.

The project noise impact study indicates a less-than-significant noise impact from project-related traffic into or out of the project parking lot. Project-related traffic will not cause noise standards to be exceeded, nor make measurably worse any existing violation.

Site use for recreational activities or special event assembly involving any substantial number of attendees may cause the noise ordinance standard to be exceeded at the closets homes. The perimeter wall(s) will provide measurable noise reduction benefit, but there could be narrow windows of sound transmission that could impact the closest neighbors. The following measures will reduce noise impact potential to a less-than-significant level:

- Groups with more than 50 planned attendees shall be required to obtain a special events permit from the MRCA. The MRCA shall include in their Special Event Guidelines for Marsh Park a statement that operation of any radio, video, musical instrument or other noise-generating device at a level which is audible beyond 150 feet from the park boundary is prohibited. The reservation form for the event shall identify limitations on number of attendees, event timing and noise control features such as orientation of any voice/music amplification.
- An MRCA staff monitor shall be present for any nighttime event to ensure that the event does not generate noise levels that would disturb the peace, quite and comfort of the neighbors.
- The MRCA shall post a sign on-site which provides a phone number for contacting the agency.

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**APPENDIX C**  
**TRAFFIC ANALYSIS**

# TRAFFIC STUDY



## MARSH PARK EXPANSION

Mountains Recreation and Conservation Authority

Los Angeles, California

*arch beach*

C O N S U L T I N G

February 21, 2012

# TRAFFIC STUDY

## MARSH PARK EXPANSION ELYSIAN VALLEY, LOS ANGELES

Mountains Recreation and Conservation  
Authority, Los Angeles, California

*Prepared by*



Project No. 11011  
February 21, 2012

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Appendix B – Level of Service Analysis Worksheets
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## 1.0 INTRODUCTION

The following presents the traffic study prepared by Arch Beach Consulting for the proposed 3.0 acre Marsh Park Expansion (proposed project) at the northern terminus of Rosanna Street in the Elysian Valley area of the City of Los Angeles (City). The proposed project would expand the existing park and skate park at the northern terminus of Marsh Street by developing an adjacent city park with amenities such as a picnic shelter, nature trails, and a free-play meadow, on a vacant 3.0 acre site west of the existing park. This traffic study has been prepared consistent with the methodologies of the Los Angeles Department of Transportation (LADOT) and methodologies from the Institute of Transportation Engineers (ITE).

### *Purpose and Objectives*

The purpose of this traffic study is to evaluate the traffic and circulation, and parking impacts of the proposed project. The study objectives include:

- Documentation of existing traffic conditions and existing plus project traffic conditions corresponding to when the proposed project would be completely built-out and fully operational.
- Determination of additional circulation system features and system management actions needed to achieve City level of service requirements with implementation of the proposed project (if required).
- Determination of the adequacy of proposed on-site parking facilities based on the peak demands of the project's proposed ancillary uses.

Per discussions with LADOT staff (Eileen Hunt, LADOT, November 2011), according to LADOT's *Traffic Study Policies and Procedures* (August 2011), the project does not meet the requirement for a Technical Memorandum (adding 25 to 42 peak hour trips during a weekday) or a Traffic Study (adding 500 or more daily trips or at least 43 peak hour trips during a weekday).

In addition, per review of the Los Angeles Metropolitan Transportation Authority's (MTA) Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed project since it would not add 50 or more weekday peak hour trips to a CMP facility. The nearest CMP facility to the project site is the Golden State Freeway – Interstate 5 (I-5).

Since the proposed project would not meet the minimum requirements to conduct a comprehensive traffic study for review by LADOT and MTA, the following traffic study primarily focuses on the potential project impacts in the immediate residential neighborhood surrounding the project site.

### *Site Location and Study Area*

The project site is located within the City of Los Angeles, in the Elysian Valley area, and currently consists of vacant land owned by the Mountain Recreation and Conservation Authority (MCRA). Specifically, the project site is located at the northern terminus of Rosanna Street, between Gleneden Street and Marsh Street. An existing park, Marsh Park, and skate park, are located at the northern terminus of Marsh Street, adjacent and east of the project site.

Regional access is provided by Ripple Street to the west, which provides access to I-5 via Fletcher Drive; and, by Newell Street to the south, which also provides access to I-5 and the Glendale Freeway – State Route 2 (SR 2) via Riverside Drive. Local access to the site is provided by Rosanna Street and Gleneden Street.

The localized study area intersections and roadways are as follows:

1. Ripple Street/Rosanna Street
2. Ripple Street/Marsh Street
3. Ripple Street/Coolidge Avenue
4. Ripple Street/Newell Street
5. Gleneden Street, between Ripple Street and proposed access
6. Rosanna Street, between Ripple Street and proposed access
7. Ripple Street, south of Rosanna Street

Figure 1 illustrates the project site location and study area intersections and roadways.

### **Methodology**

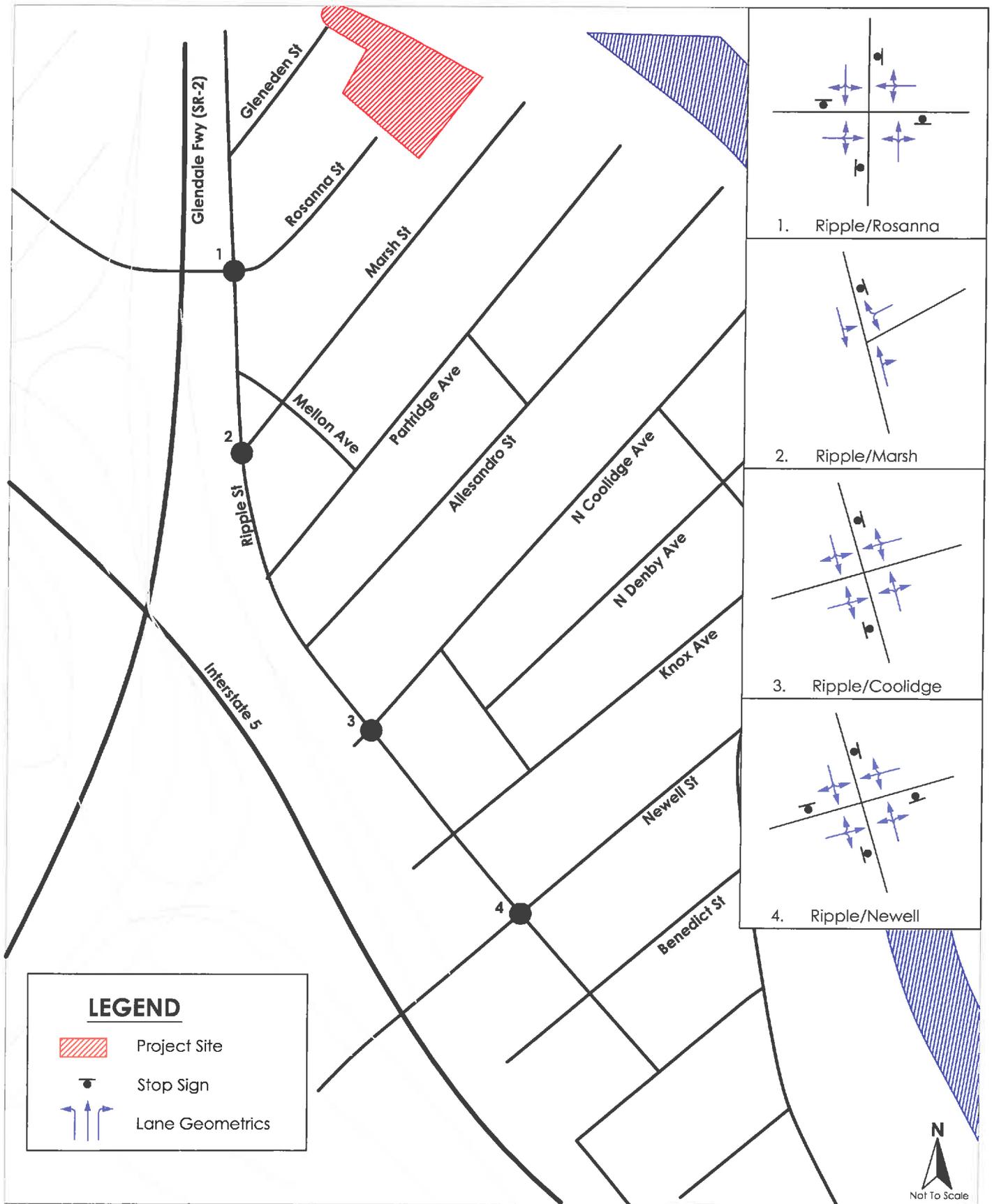
Per the methodologies outlined in the LADOT *Traffic Study Policies and Procedures*, all four unsignalized study intersections were analyzed for weekday a.m. and p.m., and Saturday midday, peak hour levels of service (LOS). The Transportation Research Board *Critical Movement Analysis (CMA)*, Circular 212 Planning Method, was used to determine intersection LOS. The CMA method determines the volume-to-capacity (V/C) ratio on a critical lane basis and LOS associated with each V/C ratio at an intersection. As directed by LADOT, specific parameters are given to unsignalized intersections (e.g., assume as two-phase signal with 1,200 vehicles per hour capacity) when analyzed under the CMA methodology.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual (HCM 2000)*. Brief descriptions of the six levels of service for signalized intersections are shown in Table A.

**Table A – Level of Service Definitions for Signalized Intersections Based on CMA Method**

Level of Service	V/C Ratio or ICU
A	0.00 – 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	1.01 or greater

Table B provides a description of each specific level of service grade (LOS A through LOS F).



1. Ripple/Rosanna

2. Ripple/Marsh

3. Ripple/Coolidge

4. Ripple/Newell

**LEGEND**

-  Project Site
-  Stop Sign
-  Lane Geometrics

Figure 1  
Project Site Location and Study Area

**Table B – Level of Service Descriptions**

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

### Significance Criteria

Per the LADOT *Traffic Study Policies and Procedures*, a project would have a significant impact if it resulted in an increase in the V/C ratio of an intersection operating at LOS C, D, E, or F per the increases noted below in Table C.

**Table C – LADOT Significance Criteria**

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700 – 0.800	equal to or greater than 0.040
D	> 0.800 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Source: LADOT *Traffic Study Policies and Procedures*, August 2011

For intersections significantly impacted by the project in the weekday a.m. and/or p.m. peak hours, or the weekend (Saturday) midday peak hour, mitigation measures will be provided to bring the intersection LOS back to baseline (i.e., "before project") LOS levels.

### ***Traffic Analysis Scenarios***

This traffic study analyzed the following traffic scenarios:

#### **Existing Condition**

Existing weekday and Saturday traffic volumes in the study area were collected in early November 2011 during a typical week, while nearby schools were in regular session. The existing traffic scenario constitutes the environmental setting in accordance with the California Environmental Quality Act (CEQA) analysis at the time that the hearing body reviews the proposed project.

#### **Opening Year (2014) Baseline Condition**

The proposed project is anticipated to be built and fully operational by year 2013. However, to provide for a conservative estimate of ambient growth, an Opening Year of 2014 was assumed for this traffic study. Opening year traffic in this scenario was forecast for 2014 by applying an ambient growth rate of 1.2 percent per year, based on the CMP ambient growth rate for "Central" Los Angeles, to the existing traffic volumes for a growth factor of 1.03. In addition, traffic from one approved project adjacent and west of the project site was added to the study area street network.

#### **Opening Year (2014) plus Project Condition**

The Opening Year (2014) plus Project Condition traffic was developed by adding the proposed project traffic to the Opening Year Baseline Condition. This scenario was the basis for determining project-specific impacts and mitigation measures.

## 2.0 PROJECT DESCRIPTION AND TRAFFIC GENERATION

The following section provides information on the permanent operation of the proposed project relative to the local circulation network.

### *Project Size and Description*

Figure 2 illustrates the site plan of the proposed project. The proposed project is the expansion of the existing Marsh Park and skate park, with a 3.0 acre city park with the following amenities:

- Free play meadow
- Health and fitness stations
- Landscaped walking and nature trails
- Bench seating areas
- A picnic shelter that can accommodate up to 200 persons
- Restrooms
- Direct access to the existing Marsh Park, skate park, and Los Angeles River Greenway Trail (a Class I, off-street, bicycle/pedestrian trail)
- 43 marked parking spaces
- Full access from Rosanna Street and Gleneden Street

The site is currently a largely undeveloped lot with an existing warehousing structure (to be demolished) on the northwest corner of the site. A large structure, known as the Janel Building, is currently located on the northern boundary of the project site, and separates the project site from the Los Angeles River Greenway Trail. In addition, there are adjacent single-family residential uses to the south, east, and west.

Full vehicular and pedestrian access to the proposed project would occur from two driveways: 1) access at the northern terminus of Rosanna Street; and, 2) access at the northern terminus of Gleneden Street. Pedestrian and bicycle access to the Los Angeles River Greenway Trail would be provided at the northwestern corner of the project site, while pedestrian and bicycle access to the existing Marsh Park and skate park would be provided at the northeastern corner of the project site.

The park's hours of operation would be sunrise to sunset, seven days a week. During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and would either walk to bike to the park. However, during peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot may not adequately serve the site. The MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.



## Project Traffic

### Trip Generation

Trip generation estimates for the proposed project were developed using trip rates from *Trip Generation, 8<sup>th</sup> Edition* (Institute of Transportation Engineers – ITE, 2008) for general the city park uses. For the proposed picnic shelter use, an operational trip generation analysis was completed based on assuming full capacity operations of the shelter (200 persons) during the weekend, and assuming a conservative 1.75 average vehicle occupancy (AVO), or 114 vehicles for 200 persons (200 persons ÷ 1.75 AVO = 114 vehicles). However, as previously indicated, the MCRA will require users of the picnic shelter, through their reservation process, to implement a parking management plan (i.e., carpooling/vanpooling) to minimize parking demand on site, and minimize overflow parking on the adjacent residential streets. A summary of the trip generation rates and resulting vehicle trips for the proposed project is presented in Table D.

**Table D – Project Trip Generation Estimates**

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>Trip Rates</b>								
City Park (ITE Code 411) weekday <sup>1</sup>	per acre	1.59	0.22	0.22	0.44	0.22	0.22	0.44
City Park (ITE Code 411) weekend <sup>1</sup>	per acre	16.00	<b>Midday Peak Hour =</b>			2.00	2.00	4.00
Picnic Shelter <sup>2</sup>	per person		<i>trips based on operational analysis</i>					
<b>Weekday Trip Generation</b>								
City Park	3.0 acres	5	1	0	1	0	1	1
Picnic Shelter	200 persons	4	2	0	2	0	2	2
<b>TOTAL WEEKDAY TRIP GENERATION</b>		<b>9</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>3</b>
<b>Weekend Trip Generation</b>			<b>Midday Peak Hour</b>					
			<b>In</b>	<b>Out</b>	<b>Total</b>			
City Park	3.0 acres	48	6	6	12			
Picnic Shelter	200 persons	236	114	11	125			
<b>TOTAL WEEKEND TRIP GENERATION</b>		<b>284</b>	<b>120</b>	<b>17</b>	<b>137</b>			

**Notes:**

Trip rates based on *Trip Generation, 8<sup>th</sup> Edition*, Institute of Transportation Engineers (ITE), 2008.

<sup>1</sup> – ITE City Park rate only provides daily trips based on acreage for weekdays and Sundays. Peak hour trip rates are conservatively based on 50% of daily trips to occur during the two peak hours (25% during a.m. peak hour and 25% during midday or p.m. peak hour).

<sup>2</sup> – Trip rates for the Picnic Shelter use are not provided in *Trip Generation, 8<sup>th</sup> Edition*, therefore an "operational" analysis was prepared using operational data from the City. For the weekdays, the Picnic Shelter would not be used with exception of two on-site employees. For the weekends, it is assumed that the Picnic Shelter would be used for an afternoon event with an AVO of 1.75. This would equal 114 vehicles, which equals 228 daily trips. The weekend daily trips also assume eight (8) daily trips from employees and service vehicles (i.e., caterers). Therefore, the Picnic Shelter would generate a total of 236 daily trips (228 trips + 8 trips = 236 daily trips).

As shown in the table, during the week (Monday through Friday), the proposed project would generate approximately nine (9) daily trips, three (3) trips in the a.m. peak hour (three inbound and zero outbound), and three (3) trips in the p.m. peak hour (zero inbound and three outbound). During the weekend (Saturday and Sunday), when the picnic shelter is operating at its 200-person capacity, the proposed project would generate approximately 284 daily trips and 137 midday peak hour trips (120 inbound and 17 outbound).

### **Trip Distribution and Assignment**

Trip distribution percentages for the proposed project were based on review of current commute corridors and travel routes in the study area. Figure 3 illustrates the trip distribution percentages and resulting trip assignment for the proposed project during a typical weekday (Monday through Friday). During the weekdays, the park would primarily serve the adjacent neighborhood resulting in a majority of vehicle trips to originate within close proximity to the park. During the week, approximately 85 percent of the vehicle trips would originate from within the adjacent neighborhood, while 15 percent would originate from areas outside the neighborhood: five percent west along Ripple Street, five percent south along Newell Street, and five percent east along Ripple Street.

Figure 4 illustrates the trip distribution percentages and resulting trip assignment for the proposed project during a typical weekend (Saturday and Sunday). During the weekends and assuming the picnic shelter would be in use, the park would serve both the adjacent neighborhood and users from outside the area that would be destined to an event at the picnic shelter. Therefore, during the weekends, approximately 40 percent of the vehicle trips would originate from within the adjacent neighborhood, while 60 percent would originate from areas outside the neighborhood: 30 percent west along Ripple Street, 20 percent south along Newell Street, and 10 percent east along Ripple Street.

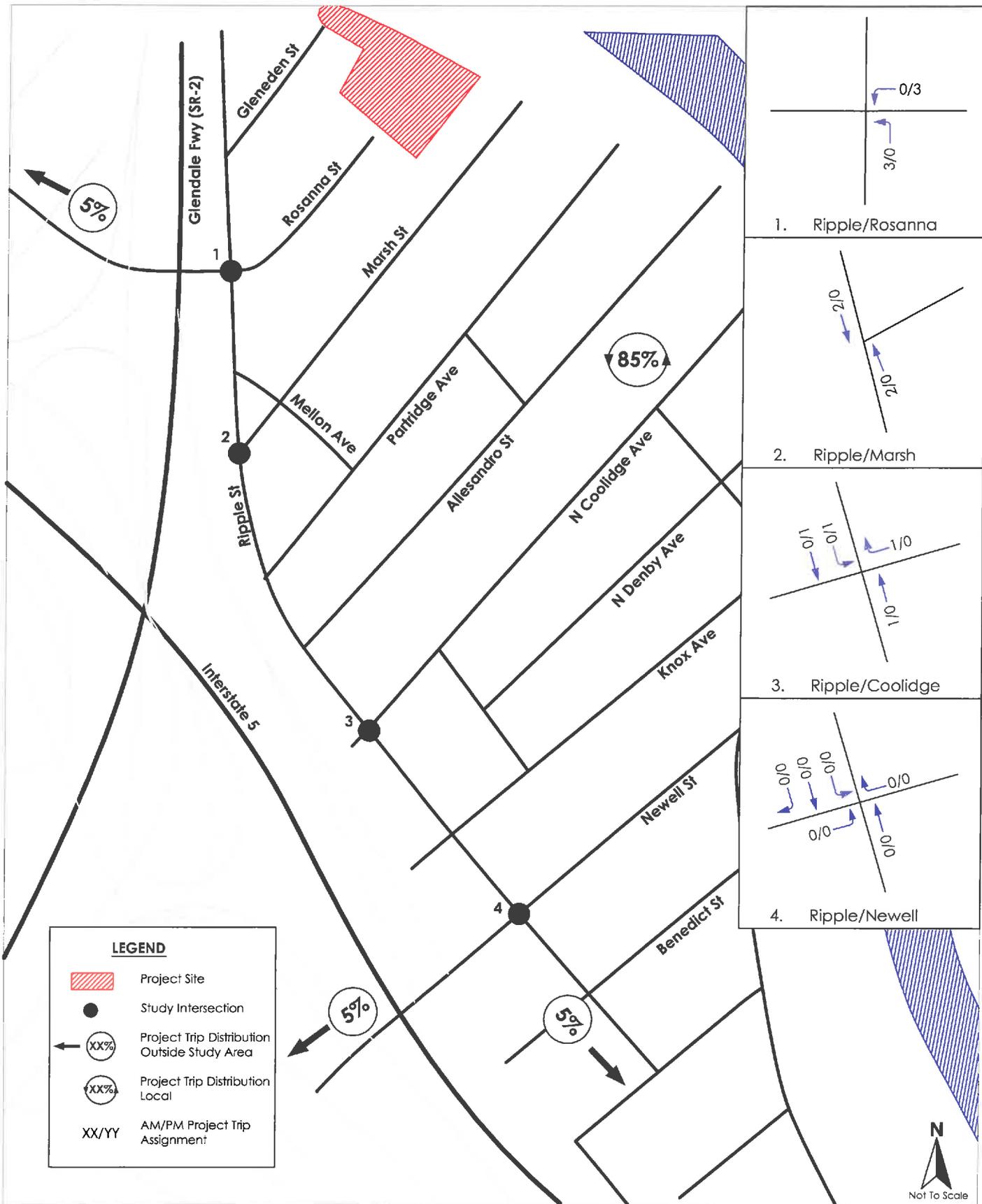


Figure 3  
Weekday Project  
Trip Distribution and Assignment

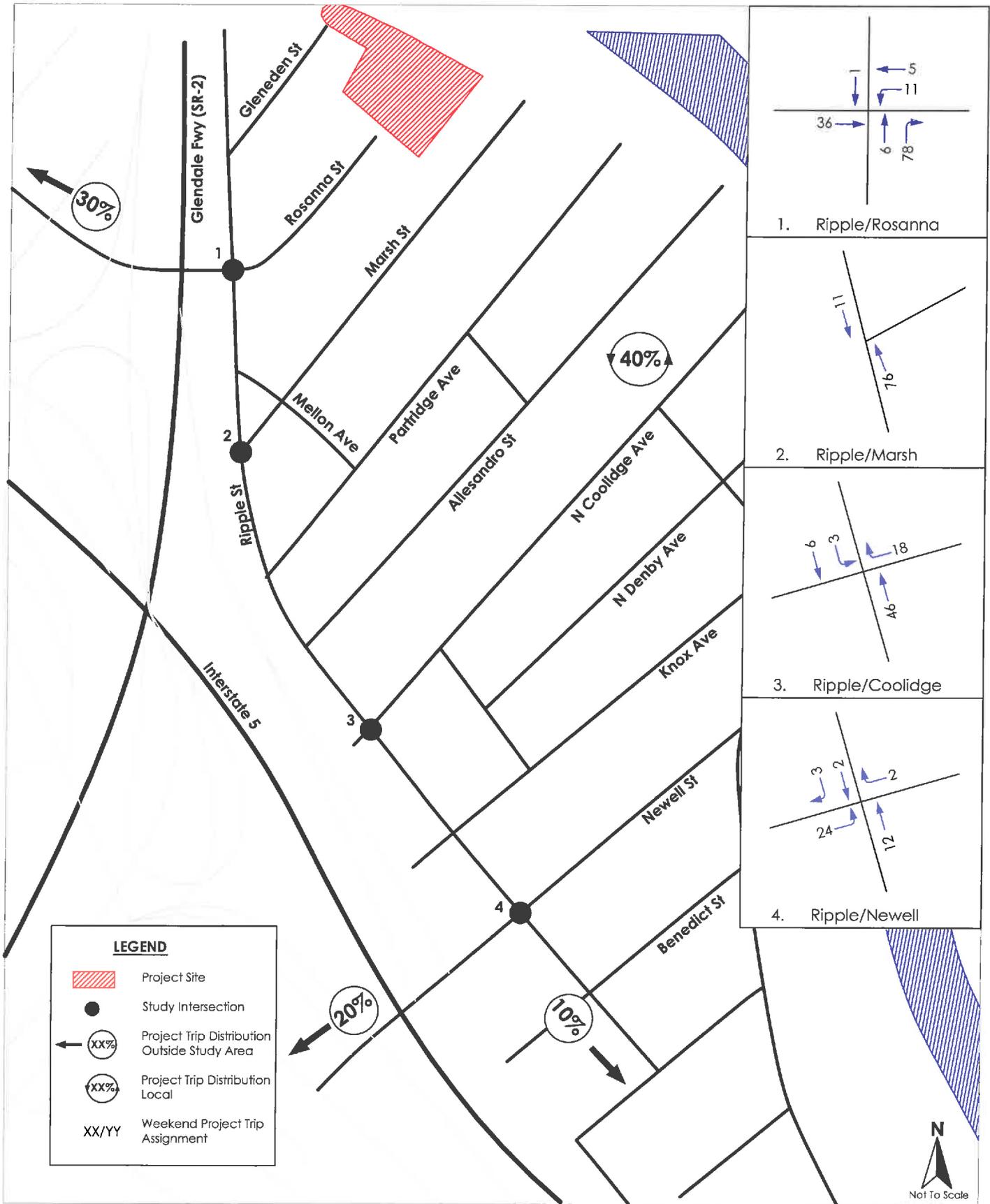


Figure 4  
Weekend Project  
Trip Distribution and Assignment

### 3.0 AREA CONDITIONS

The following section describes the existing traffic conditions in the project study area.

#### *Existing Traffic Conditions*

##### **Roadways**

Regional access to the Golden State Freeway (I-5) and the Glendale Freeway (SR 2) is provided by Ripple Street, via Fletcher Drive; and, Newell Street, via Riverside Drive. Local access to the site is provided by Rosanna Street and Gleneden Street. The following describes the existing roads in the study area.

##### **Ripple Street**

Ripple Street is an undivided two-lane collector street with on-street parking permitted on both sides along its approximately 0.9 mile length, starting at Fletcher Drive and ending at Queen Street. After its undercrossing of the Glendale Freeway, this roadway would provide direct access to the project site at its intersection with Rosanna Street. There is no posted speed limit on the roadway within the study area. On the east side of Ripple Street there is no on-street parking permitted from 8:30 a.m. to 10:30 a.m. on Thursdays for street cleaning, while the west side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. Average daily traffic volumes collected in November 2011 are approximately 3,910 vehicles per day, south of Rosanna Street.

##### **Newell Street**

Newell Street is an undivided two-lane collector street with on-street parking permitted on both sides along its approximately 0.4 mile length, starting at Riverside Drive and terminating at the Los Angeles River Greenway Trail. Newell Street provides access to the project site via Ripple Street to Rosanna Street. Newell Street is the main collector that provides access to Riverside Drive which has ramps for the I-5. In addition, a direct on-ramp to northbound SR 2 exists just west of its intersection with Ripple Street. There is no posted speed limit on the roadway within the study area. On the north side of Newell Street there is no on-street parking permitted from noon to 2:00 p.m. on Thursdays for street cleaning, while the south side has parking restrictions from noon to 2:00 p.m. on Fridays. On-street parking is restricted on both sides of Newell Street from 2:00 a.m. to 6:00 a.m.

##### **Rosanna Street**

Rosanna Street is a residential two-lane street with on-street parking permitted on both sides along its approximately 0.1 mile length, starting at Ripple Street and ending at one of the two entrances to the project site. There is no posted speed limit on the roadway within the study area. On the north side of Rosanna Street there is no on-street parking permitted from 11:30 a.m. to 1:30 p.m. on Thursdays for street cleaning, while the south side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. Average daily traffic volumes collected in November 2011 are approximately 340 vehicles per day.

##### **Gleneden Street**

Gleneden Street is a residential two-lane street with on-street parking permitted on both sides along its approximately 0.1 mile length, starting at Ripple Street and ending at one of the two entrances to the project site. There is no posted speed limit on the roadway within the study area. On the north side of Gleneden Street there is no on-street parking permitted from 11:30 a.m. to 1:30 p.m. on Thursdays for street cleaning, while the south

side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. On both sides of the street, on-street parking is limited to two hours from 8:00 a.m. to 6:00 p.m., Monday through Friday. Average daily traffic volumes collected in November 2011 are approximately 200 vehicles per day.

### Traffic Volumes

Figure 5 illustrates the existing daily, a.m. and p.m. peak hour traffic volumes at the study locations, while Figure 6 illustrates the existing weekday (Saturday) midday peak hour traffic volumes. Existing daily, weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic counts were collected in the study area in early November 2011 while nearby schools were in session. Appendix A contains the raw traffic volume worksheets.

### Levels of Service

Based on the analysis methodology described in Section 1.0, the existing weekday a.m. and p.m. peak hour, and weekend (Saturday) midday peak hour traffic volumes were analyzed using LADOT's CMA intersection LOS methodology to determine the existing intersection volume-to-capacity (V/C) and level of service (LOS) values. Table E presents the results of the existing intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

**Table E – Existing Condition Intersection Level of Service Summary**

Intersection	Control	Weekday		Weekday		Saturday	
		AM Peak Hour		PM Peak Hour		Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
1. Ripple Street/Rosanna Street	all-way stop	0.196	A	0.179	A	0.166	A
2. Ripple Street/Marsh Street	1-way stop	0.087	A	0.058	A	0.069	A
3. Ripple Street/Coolidge Avenue	2-way stop	0.109	A	0.102	A	0.097	A
4. Ripple Street/Newell Street	all-way stop	0.170	A	0.156	A	0.168	A

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

Based on the table, all four study area intersections are currently operating at satisfactory levels of service at LOS A in all peak hours.

### Transit Service

There are no transit services or routes in the immediate project vicinity. Regional transit service is provided by the Metropolitan Transportation Authority (MTA) with two routes in the area: 1) Route 96 – Downtown LA to Burbank; and, 2) Route 603 – Grand Station to Glendale Galleria. Bus stops for Route 96 are located approximately 0.6 miles away from the project site, with weekday, Saturday, and Sunday/holiday service. Bus stops for Route 603 are located approximately 0.5 miles away, with only weekday shuttle service.

### Pedestrian and Bicycle Facilities

There are three basic categories of bike trails within the City, as defined by Caltrans. Class I bike paths involve designs which are completely separated from traffic lanes. Class II paths are on-street paths that are located along the edge of a street with a striped lane denoting this bike path. Class III paths also are located along a street edge, but are not striped. These paths are identified by street signs only. Currently, the Los Angeles River Greenway Trail is a Class I facility that provides pedestrian and bicycle-only travel along the west side of the Los Angeles River in the project vicinity. Ripple Street is

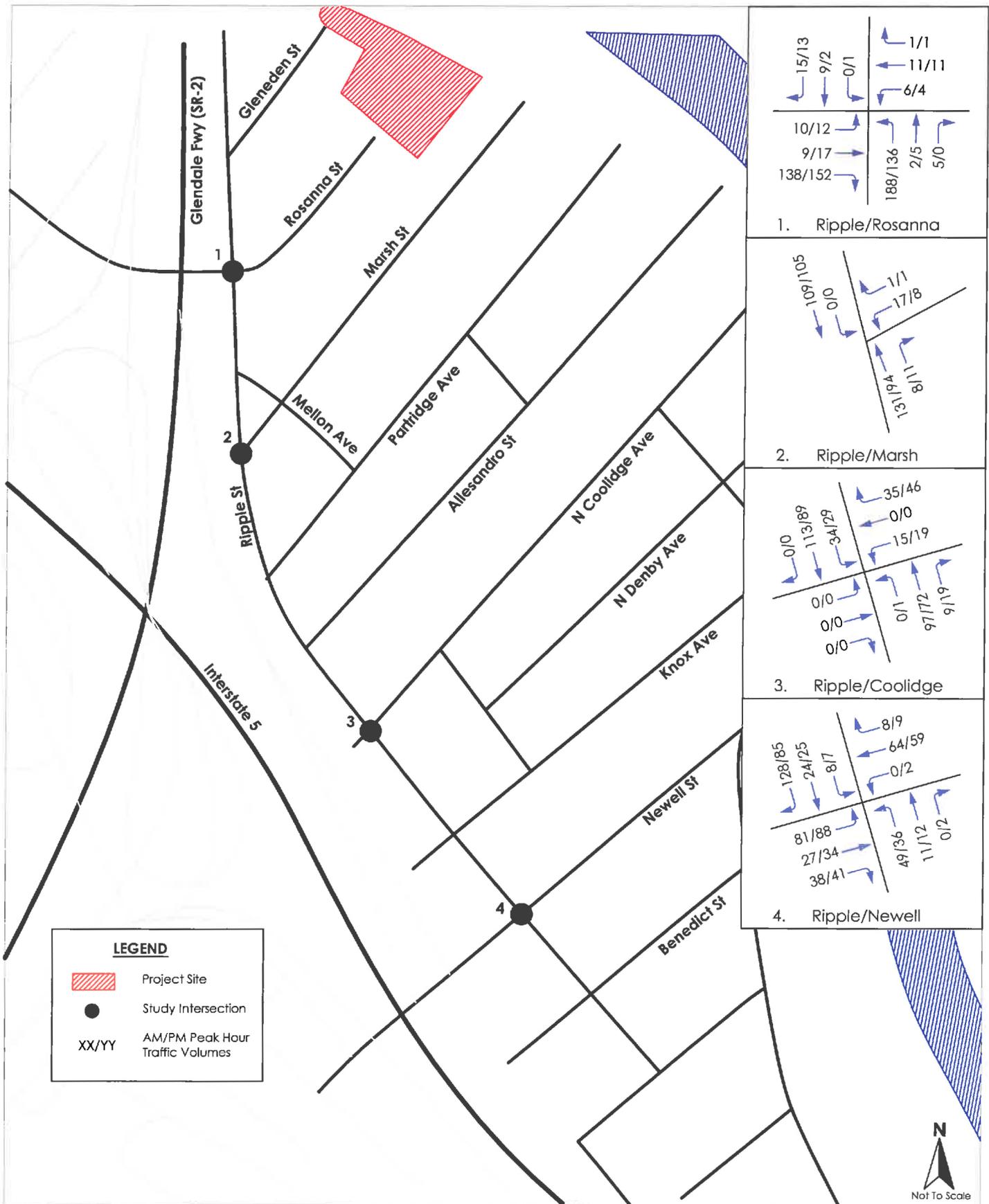


Figure 5  
Existing Weekday  
Traffic Volumes

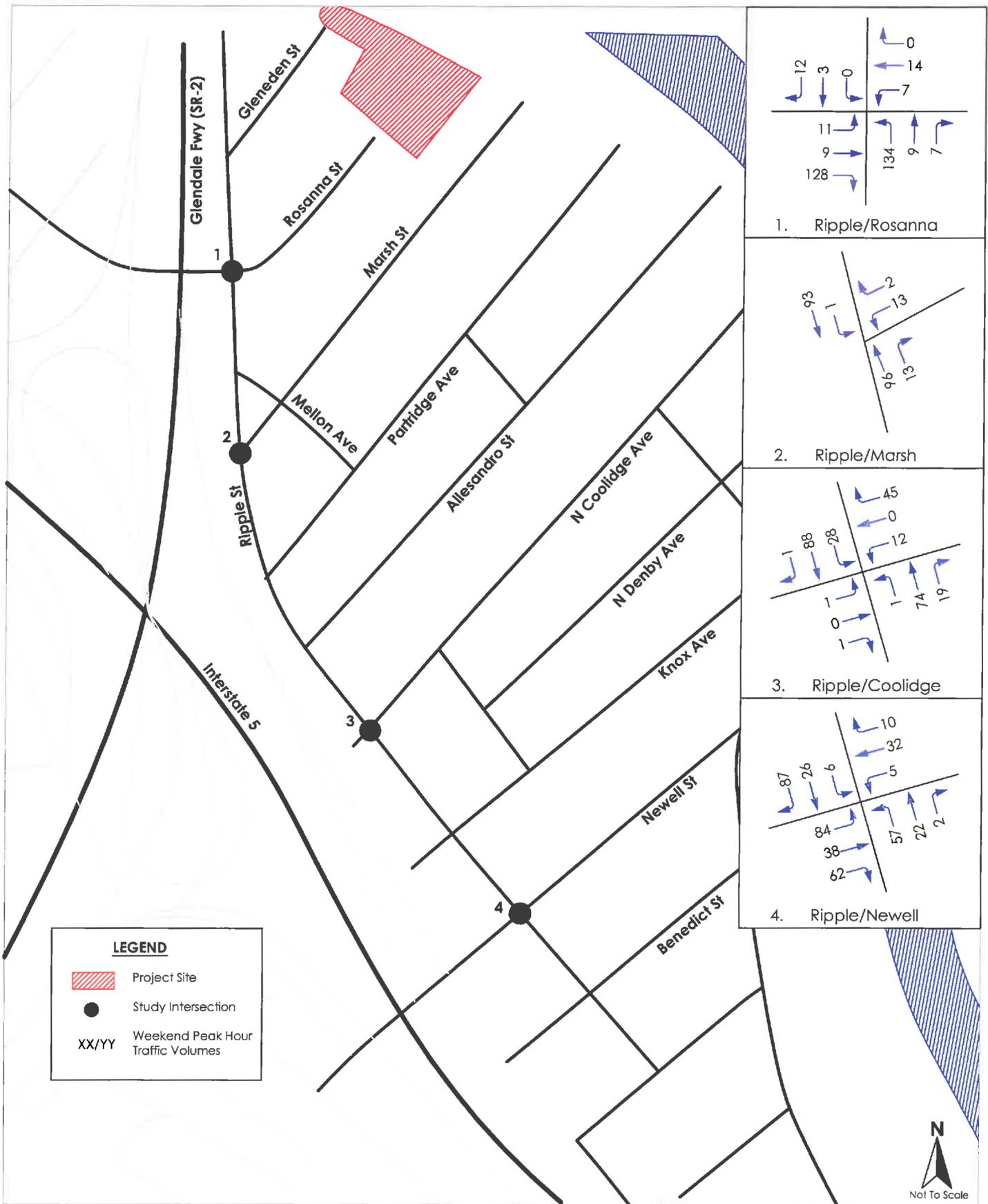


Figure 6  
Existing Weekend (Saturday)  
Traffic Volumes

designated as a Class III bike trail with signage denoting bicycle routes. All streets in the study area contain sidewalks on both sides of the road, with exception of Ripple Street, which does not have a sidewalk along its frontage with the I-5 right-of-way.

## 4.0 FUTURE TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- Opening Year (2014) Baseline
- Opening Year (2014) plus Project

### *Opening Year (2014) Baseline*

The proposed project is anticipated to be built and fully operational by year 2014. This scenario is comprised of existing traffic conditions plus ambient traffic growth over a three year period (2011 to 2014). Opening year traffic was forecast for 2014 by applying an ambient growth rate of 1.2 percent per year, based on the CMP ambient growth rate for "Central" Los Angeles, to the existing traffic volumes for a growth factor of 1.03. In addition, traffic from one approved project, a 56 dwelling unit (DU) condominium located adjacent and west of the project site, was added to the study area street network. Per ITE rates, this approved condominium project would generate approximately 325 daily trips, 25 a.m. peak hour trips (four inbound and 21 outbound), and 29 p.m. peak hour trips (19 inbound and 10 outbound). For the Saturday midday peak hour, the approved 56 DU condominium project would generate approximately 318 weekend daily trips, and 26 midday peak hour trips (14 inbound and 12 outbound).

The ambient growth rate and traffic from the adjacent approved project was applied to the through volumes along Ripple Street and Newell Street. No ambient growth is anticipated on Rosanna Street and Gleneden Street.

No additional improvements to the study area roadways and intersections are anticipated to occur in the 2014 Opening Year scenario. Therefore, the existing intersection traffic controls and geometrics were utilized in the level of service analysis.

### **Traffic Volumes**

Traffic volumes for the Opening Year (2014) Baseline (without project) scenario were determined by applying the ambient growth rate, and traffic from the approved 56 DU condominium project, discussed above to the existing through volumes on Ripple Street and Newell Street for the weekday a.m. and p.m. peak hours and weekend (Saturday) midday peak hour. Access to the approved condominium project would be at the northern end of Ripple Street, with 50 percent of that project's traffic headed west on Ripple Street, towards Fletcher Avenue, and 50 percent headed south on Ripple Street towards Newell Street and Riverside Drive. Appendix C contains the approved project's *Case Information Summary Sheet* from the City Planning Department, as well as the proposed site plan.

Figure 7 illustrates the resulting Opening Year (2014) Baseline weekday a.m. and p.m. peak hour traffic volumes. Figure 8 illustrates the Opening Year Baseline weekend (Saturday) midday peak hour traffic volumes.

### **Levels of Service**

The Opening Year (2014) Baseline weekday a.m. and p.m. peak hour and weekend (Saturday) midday peak hour traffic volumes were input into the TRAFFIX LOS software to determine this scenario's intersection V/C ratios and corresponding LOS values. Table F presents the results of the Opening Year (2014) Baseline intersection LOS analysis. Appendix B provides the LOS calculation worksheets at each study area intersection.

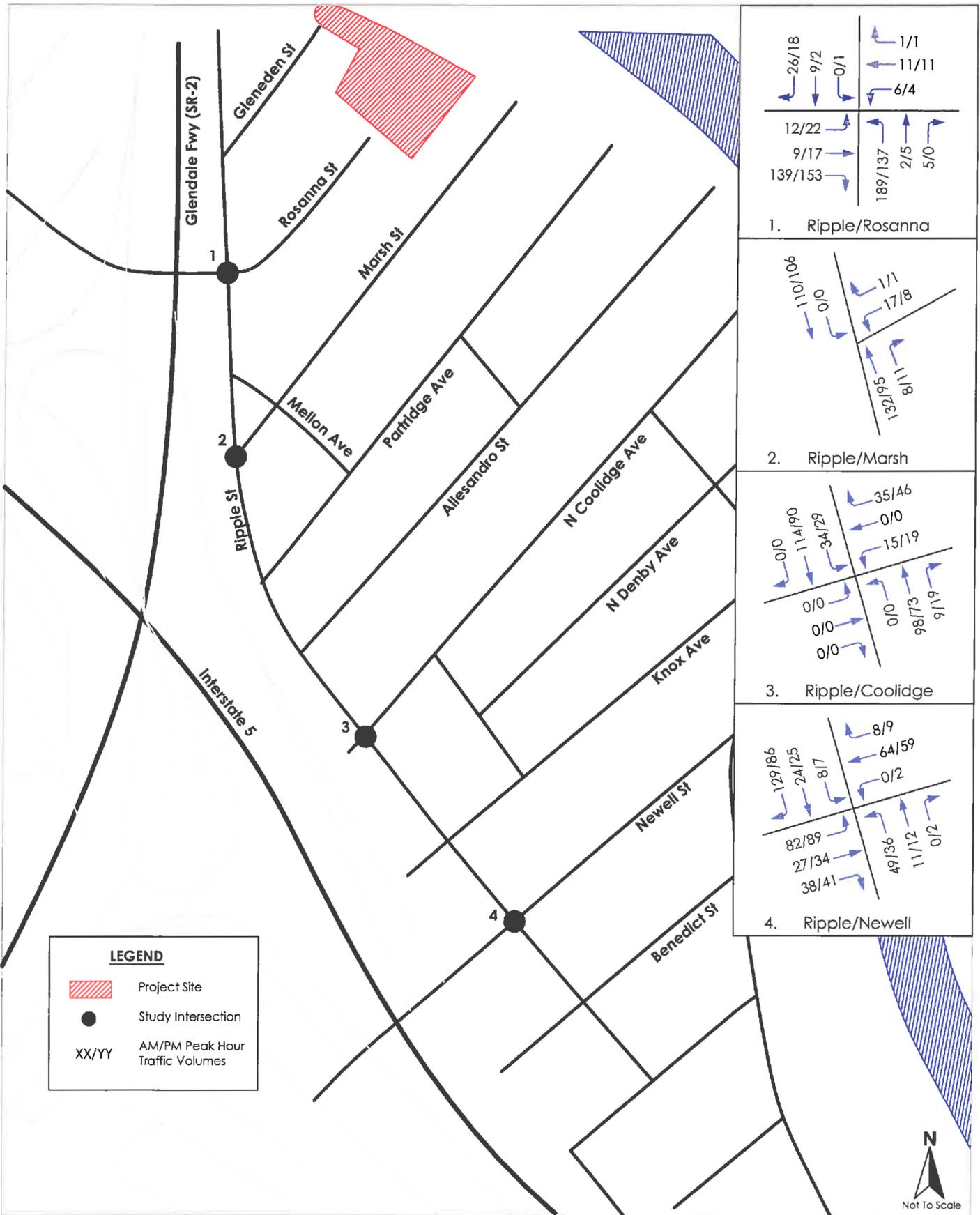


Figure 7  
Opening Year Weekday Baseline  
Traffic Volumes

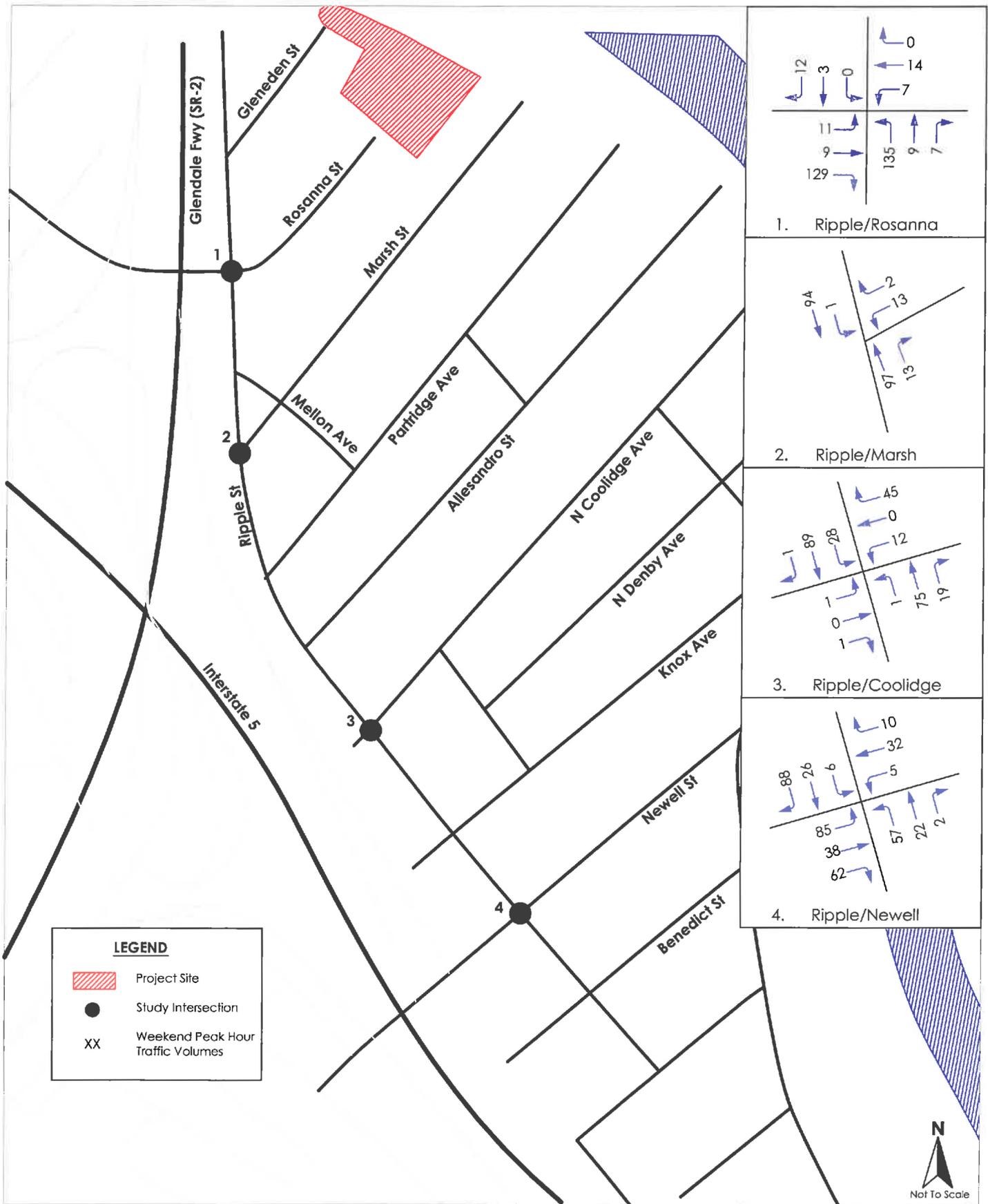


Figure 8  
Opening Year Weekend (Saturday)  
Traffic Volumes

**Table F – Opening Year Baseline Intersection Level of Service Summary**

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
		1. Ripple Street/Rosanna Street	all-way stop	0.297	A	0.279	A
2. Ripple Street/Marsh Street	1-way stop	0.132	A	0.096	A	0.104	A
3. Ripple Street/Coolidge Avenue	2-way stop	0.165	A	0.154	A	0.146	A
4. Ripple Street/Newell Street	all-way stop	0.257	A	0.235	A	0.254	A

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

Based on the table, all four study area intersections would continue to operate with satisfactory levels of service at LOS A in all peak hours.

### ***Opening Year (2014) plus Project***

Traffic generated by the proposed project was added to the Opening Year (2014) Baseline weekday and weekend (Saturday) scenarios, and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

### **Traffic Volumes**

The project trip assignments shown in Figures 3 (weekday) and 4 (weekend – Saturday) were added to the Opening Year (2014) Baseline traffic volumes in Figures 7 (weekday) and 8 (weekend – Saturday) in the Opening Year (2014) plus Project traffic conditions. Figure 9 illustrates the Opening Year (2014) plus Project weekday a.m. and p.m. peak hour traffic volumes. Figure 10 illustrates the Opening Year (2014) weekend (Saturday) midday peak hour traffic volumes.

### **Levels of Service**

The Opening Year (2014) plus Project weekday a.m. and p.m. peak hour, and weekend (Saturday) midday peak hour traffic volumes were input into the TRAFFIX software to determine this scenario's intersection V/C ratios and corresponding LOS values. Table G presents the results of the intersection LOS analysis and provides a comparison to the Opening Year (2014) Baseline scenarios, as well as the change in V/C ratios. The LOS calculation sheets are provided in Appendix B.

**Table G – Opening Year plus Project Intersection Level of Service Summary**

Intersection	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	V/C	LOS	Increase	V/C	LOS	Increase	V/C	LOS	Increase
1. Ripple St/Rosanna St	0.300	A	+0.003	0.279	A	0.000	0.350	A	+0.100
2. Ripple St/Marsh St	0.133	A	+0.001	0.097	A	+0.001	0.167	A	+0.063
3. Ripple St/Coolidge Ave	0.166	A	+0.001	0.155	A	+0.001	0.180	A	+0.034
4. Ripple St/Newell St	0.257	A	0.000	0.235	A	0.000	0.278	A	+0.033

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

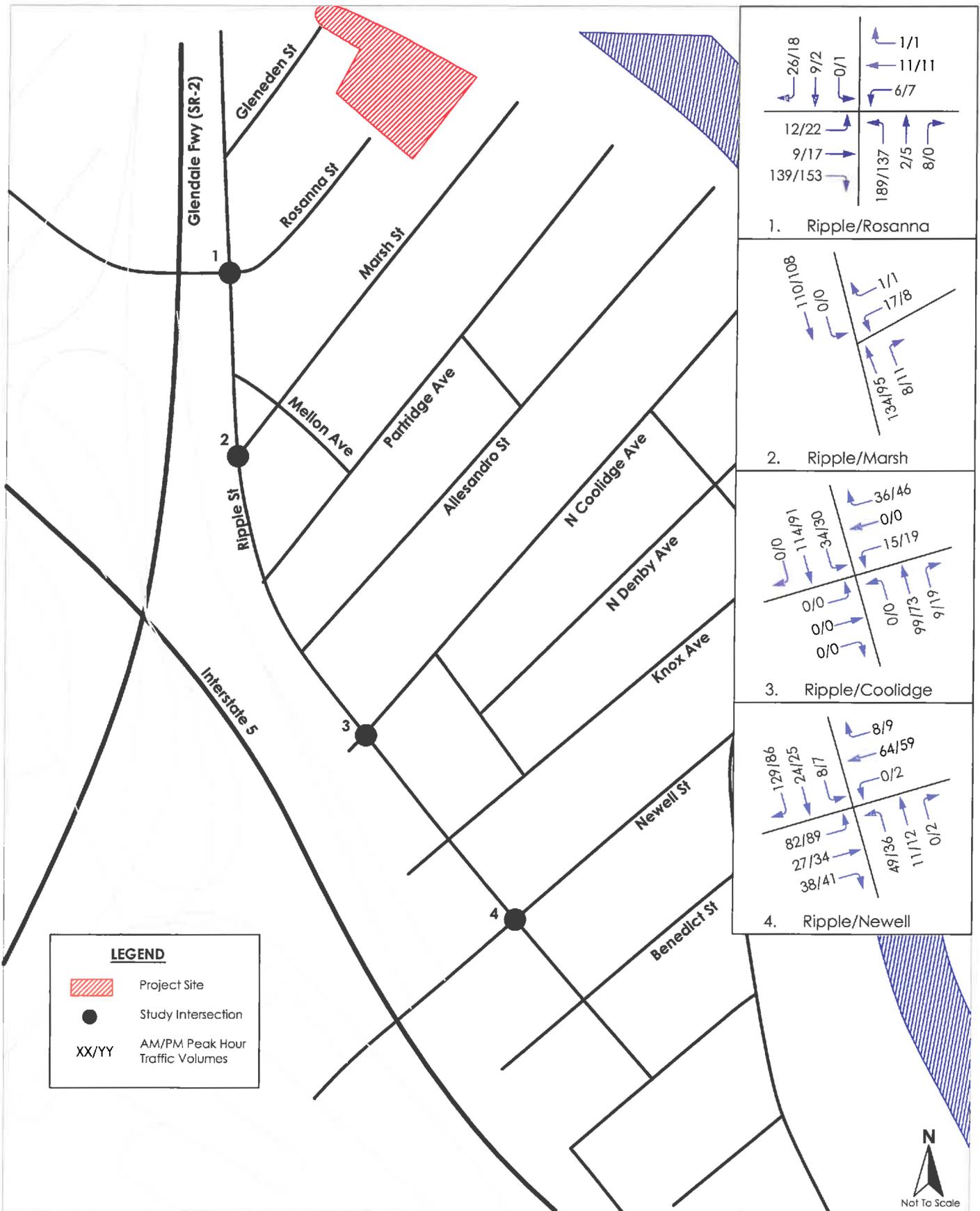


Figure 9  
Opening Year Weekday Baseline  
plus Project Traffic Volumes

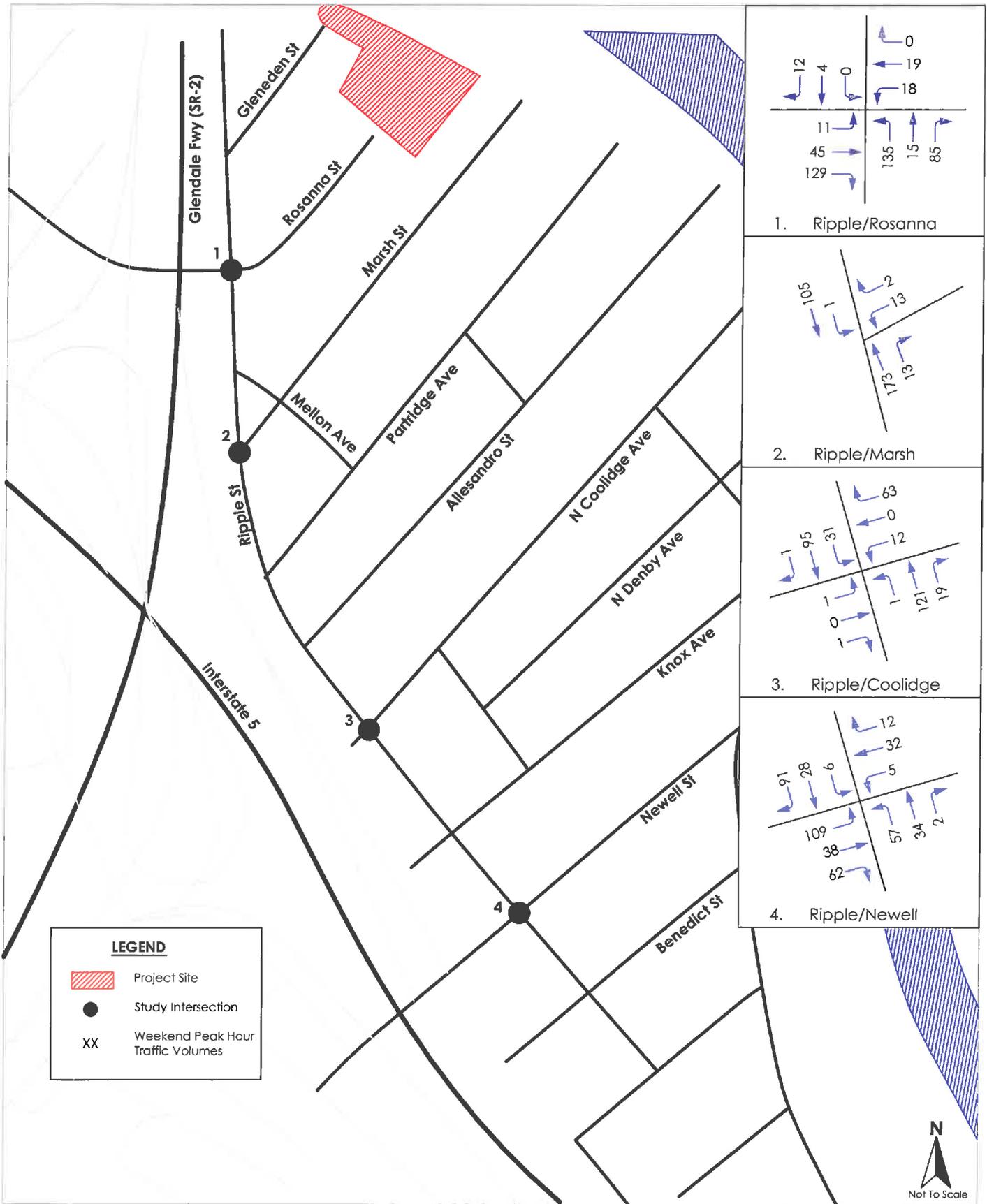


Figure 10  
Opening Year Weekend (Saturday)  
Baseline plus Project Traffic Volumes

With addition of trips from the proposed project, all four intersections would continue to operate at LOS A in the weekday a.m. and p.m. peak hours, and the weekend (Saturday) midday peak hour. Applying the significance criteria provided in Table C – LADOT Significance Criteria, with the addition of project traffic, there would be no significant impacts to the four study intersections as all increases in V/C associated with the proposed project would be less than the LADOT criteria: LOS C  $\geq 0.040$  V/C; LOS D  $\geq 0.020$  V/C; and LOS E and F  $\geq 0.010$  V/C.

### ***Mitigation Measures***

None required.

## 5.0 PROJECT ACCESS & CIRCULATION, AND ON-SITE PARKING

### *Project Access and Circulation*

Based on review of the project site plan, vehicular access to the site would be provided by new full access driveways on Rosanna Street and Gleneden Street. Although Ripple Street intersects with Rosanna Street providing a more direct route to the project site via Rosanna Street, another full access on Gleneden Street would also serve project traffic. The access on Gleneden Street would have direct access to the proposed picnic shelter, while the access on Rosanna Street would have direct access to the free play meadow.

The driveway access locations on Gleneden Street and Rosanna Street would be designed to equally accommodate project traffic destined to the park. However, because Ripple Street directly connects with Rosanna Street, and to provide a conservative analysis of project traffic at the Ripple Street/Rosanna Street intersection, it was assumed that all weekday traffic to and from the proposed project would likely use Rosanna Street. During the weekend, assuming full occupancy of the picnic shelter, the proposed project would add approximately 270 daily trips and 130 midday peak hour trips (95 percent distribution) to Rosanna Drive, while 14 daily trips and seven midday peak hour trips (five percent distribution) would be added to Gleneden Street. As shown in the Opening Year plus Project intersection LOS analysis, the intersection of Ripple Street/Rosanna Street would continue to operate at LOS A during the weekday and weekend (Saturday) peak hours. Therefore, the roadways (Rosanna Street and Gleneden Street) and intersection (Ripple Street/Rosanna Street) directly serving the proposed project would have ample capacity to serve its traffic.

Even if the MRCP were to revise the driveway at Gleneden Street to a one-way outbound access, all inbound project traffic could still be accommodated on Rosanna Street, and intersection LOS would likely remain at LOS A.

Review of the site plan shows a single, double-loaded (i.e., parking stalls on both sides of aisle) drive aisle serving the 43-space parking lot. The site plan will be required to conform to the City of Los Angeles' on-site design criteria and standards. A "hammerhead" driveway is provided in the easternmost area of the parking lot allowing for a vehicle turnaround at the end of the drive aisle. On the west side of the parking lot, another access to the park from Gleneden Street would be provided to allow for additional ingress and egress from the project site.

### *On-site Parking*

The City's Zoning Code, *Section 12.21.A.4 – Off-Street Automobile Parking Requirements*, does not provide parking requirements for park land uses. However, the Institute of Transportation Engineers (ITE) *Parking Generation, 3<sup>rd</sup> Edition* (2004) published an observed parking rate of 5.1 parked vehicles per acre for a City Park (ITE Code 411) land use. Using the ITE rate of 5.1 spaces per acre, the proposed three acre park would need a minimum of 15 parking spaces.

The park's hours of operation would be sunrise to sunset, seven days a week. Therefore, there would be no parking demand during the evening hours, which corresponds to the peak parking demand of the surrounding residential neighborhood. During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and

would either walk to bike to the park. However, during peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot may not adequately serve the site if no parking management plan is implemented. The MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.

### ***Mitigation Measures***

None required.

## 6.0 SUMMARY AND CONCLUSIONS

### *Traffic*

Based on the traffic analysis performed for the Marsh Park Expansion, the following conclusions are made regarding the park's addition of traffic to the study area street network:

- During the week, the proposed project would generate approximately nine (9) daily trips, three (3) trips in the a.m. peak hour (three inbound and zero outbound), and three (3) trips in the p.m. peak hour (zero inbound and three outbound).
- During the weekend, assuming the picnic shelter is operating at its 200-person capacity, the proposed project would generate approximately 284 daily trips and 137 midday peak hour trips (120 inbound and 17 outbound).
- With addition of trips from the proposed project, all four study area intersections would continue to operate at LOS A in the weekday a.m. and p.m. peak hours, and the weekend (Saturday) midday peak hour. Applying the significance criteria provided in Table C – LADOT Significance Criteria, with the addition of project traffic, there would be no significant impacts to the four study intersections.
- No mitigation measures are required for the study area intersection and roadway segments.

### *Project Access and Circulation*

Based on review of the site plan for the Marsh Park Expansion, the following conclusions are made regarding project access and circulation:

- With addition of traffic from the proposed project, the intersection of Ripple Street/Rosanna Street would continue to operate at LOS A during the weekday and weekend (Saturday) peak hours. Therefore, the roadways (Rosanna Street and Gleneden Street) and intersection (Ripple Street/Rosanna Street) directly serving the proposed project would have ample capacity to serve its traffic. Even if the MRCP were to revise the driveway at Gleneden Street to a one-way outbound access, all inbound project traffic could still be accommodated on Rosanna Street, and intersection LOS would likely remain at LOS A.
- The site plan will be required to conform to the City of Los Angeles' on-site design criteria and standards. A "hammerhead" driveway is provided in the easternmost area of the parking lot allowing for a vehicle turnaround at the end of the drive aisle. On the west side of the parking lot, another access to the park from Gleneden Street would be provided to allow for additional ingress and egress from the project site.
- No mitigation measures are required for the project's access and internal circulation.

### *Parking*

Based on review of the site plan for the Marsh Park Expansion, the following conclusions are made regarding on-site parking:

- During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and would either walk to bike to the park.

- During peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot would adequately serve the site as the MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.
- No mitigation measures are required for the project's on-site parking.

## 7.0 REFERENCES

City of Los Angeles, Department of Transportation (LADOT), *Traffic Study Policies and Procedures*, August 2011.

Institute of Transportation Engineers (ITE), *Parking Generation, 3<sup>rd</sup> Edition*, 2004.

Los Angeles, City of, *Case Information Summary Sheet for CPC-2005-6796-ZC-GPA-ZV-ZAA*, February 2012.

Los Angeles Metropolitan Transportation Authority's (MTA), *Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) Guidelines for CMP Transportation Impact Analysis*, 2004.

Ritchie-Bray, Inc., *Landscape Plan for 56-Unit Condominium Complex – Anastasi Development Company, Inc.*, March 2011.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington, D.C., 2000.

## APPENDIX A

### Raw Traffic Volume Counts

# ITM Peak Hour Summary

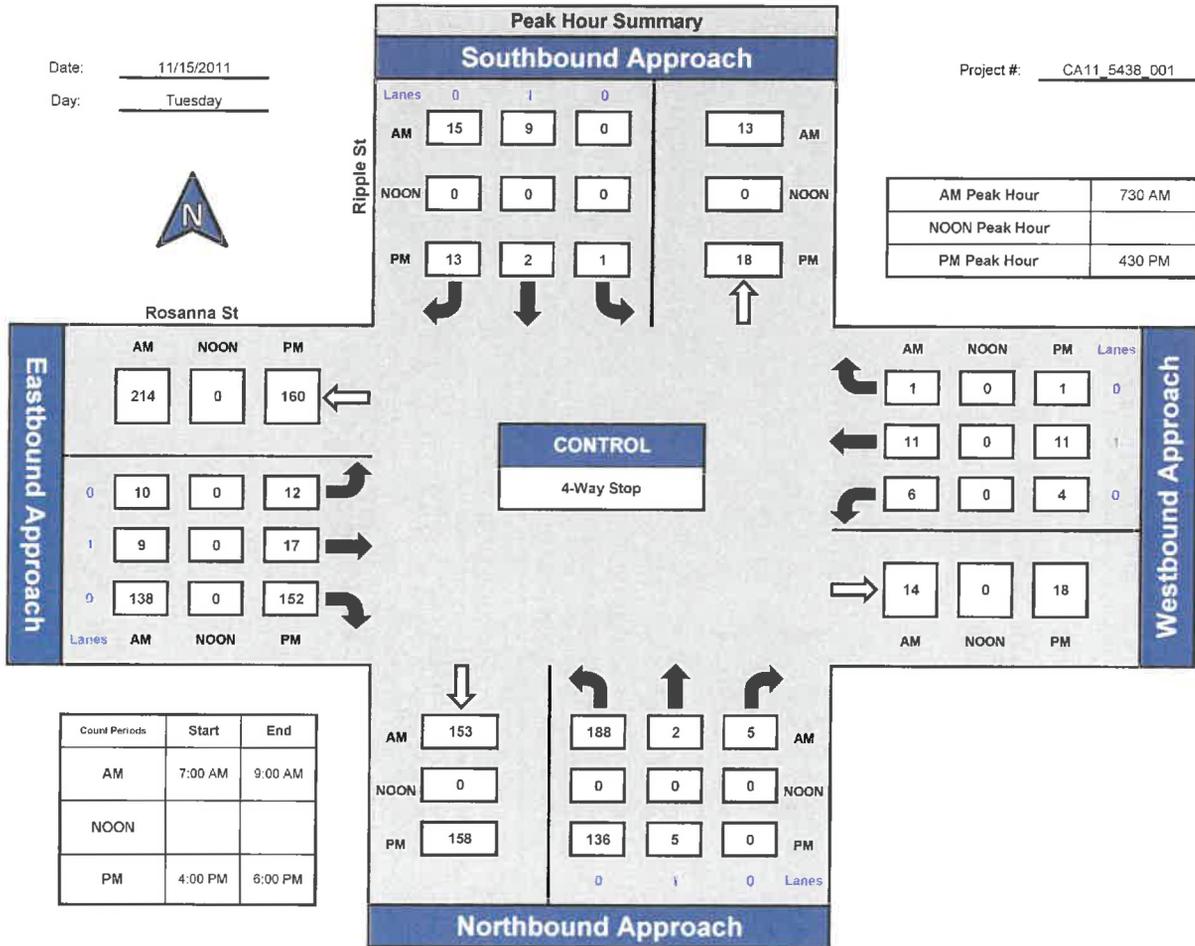


Prepared by:  
National Data & Surveying Services

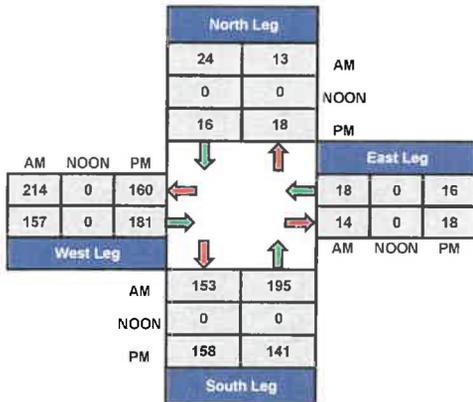
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Day: Tuesday

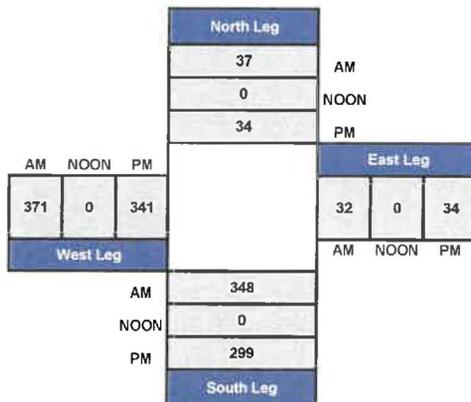
Project #: CA11\_5438\_001



Total Ins & Outs



Total Volume Per Leg



# ITM Peak Hour Summary

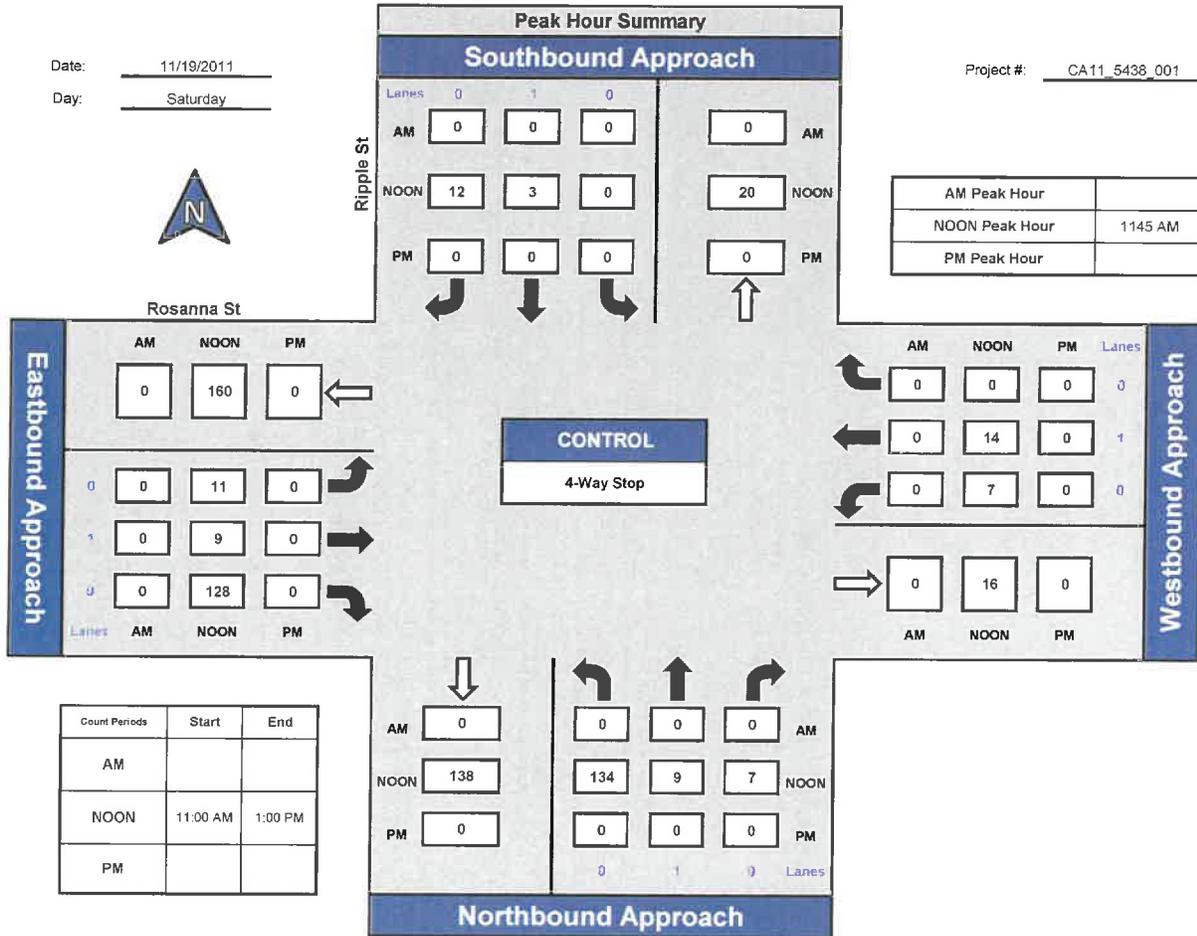


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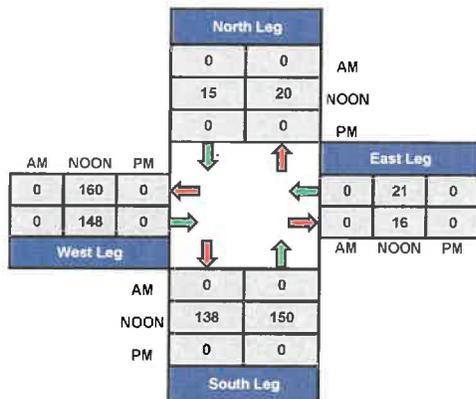
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Day: Saturday

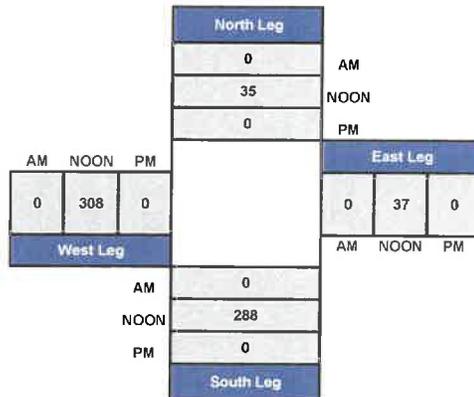
Project #: CA11\_5438\_001



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

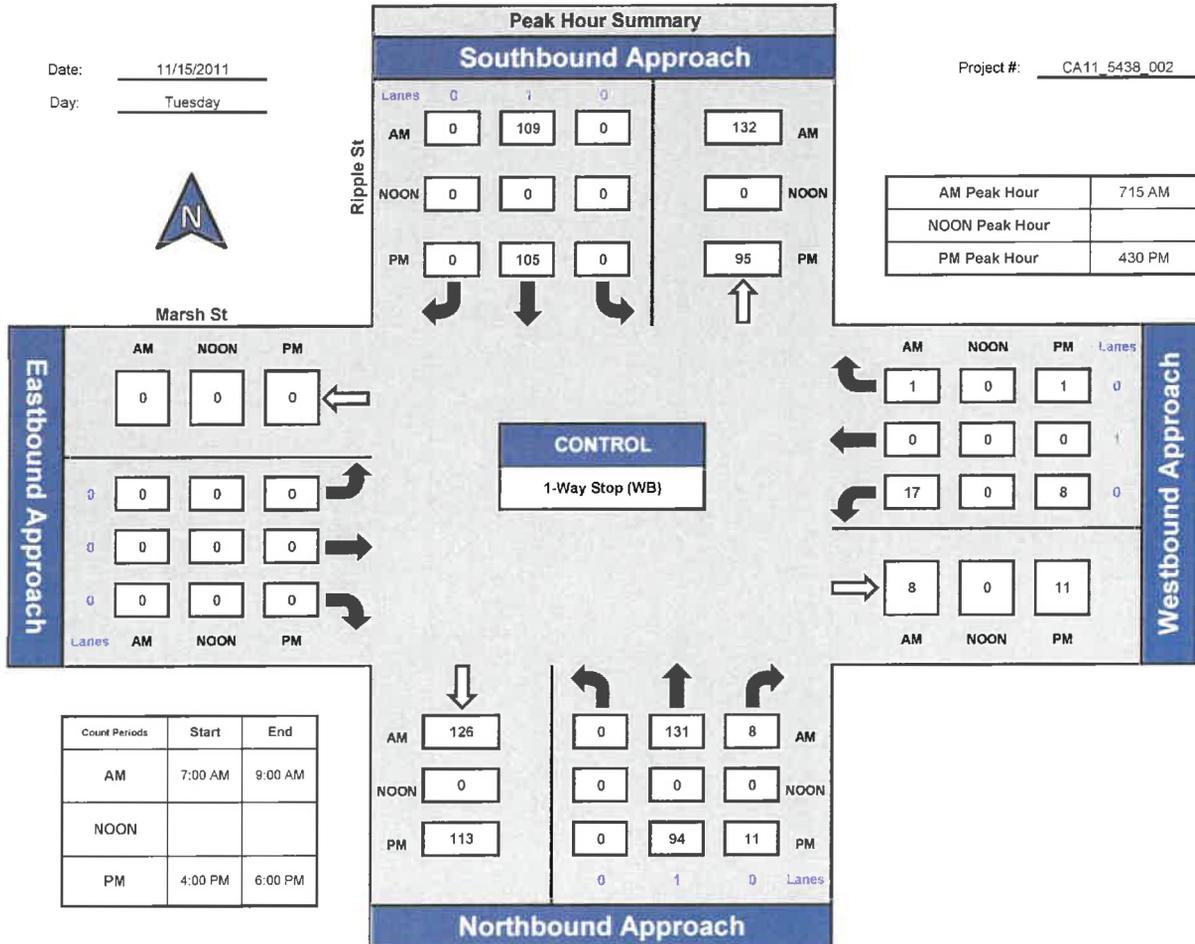


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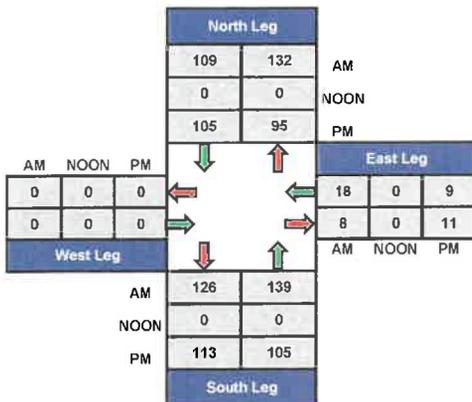
## Ripple St and Marsh St, City of Los Angeles

Date: 11/15/2011  
Day: Tuesday

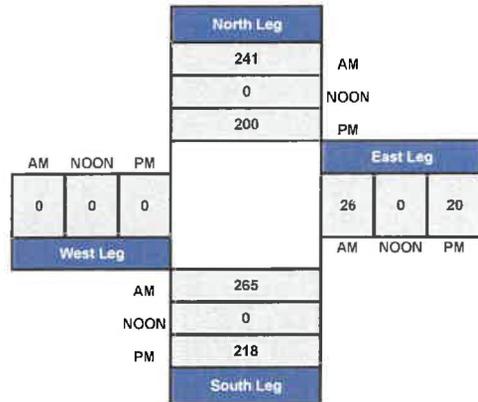
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### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

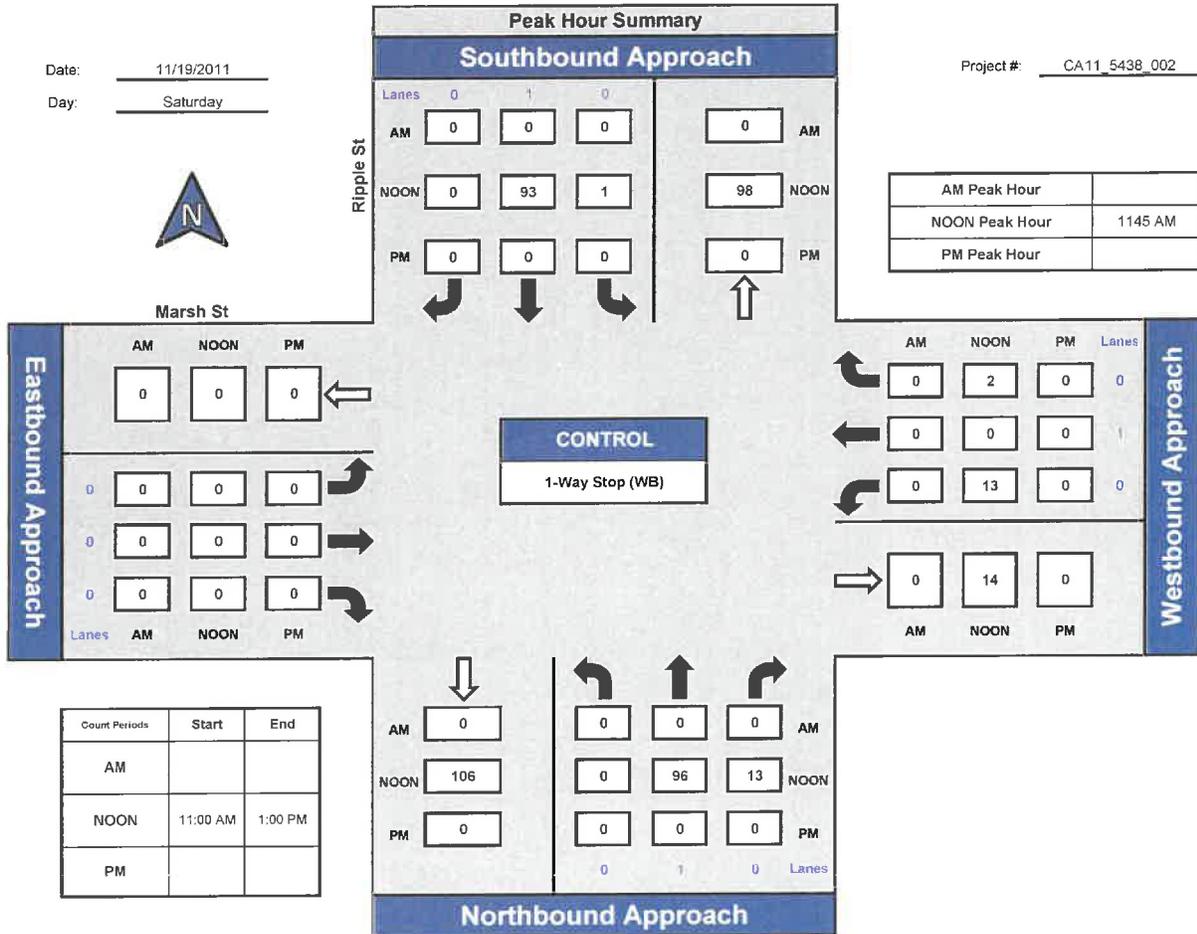


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National Data & Surveying Services

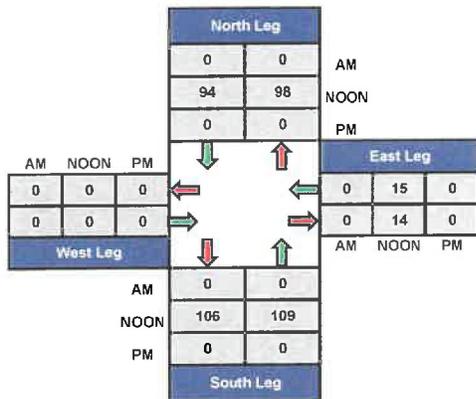
## Ripple St and Marsh St, City of Los Angeles

Date: 11/19/2011  
Day: Saturday

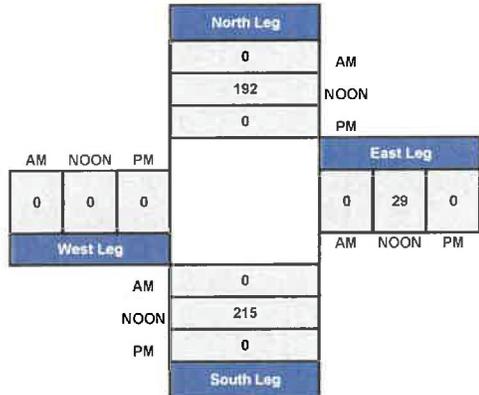
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### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

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**NDS**

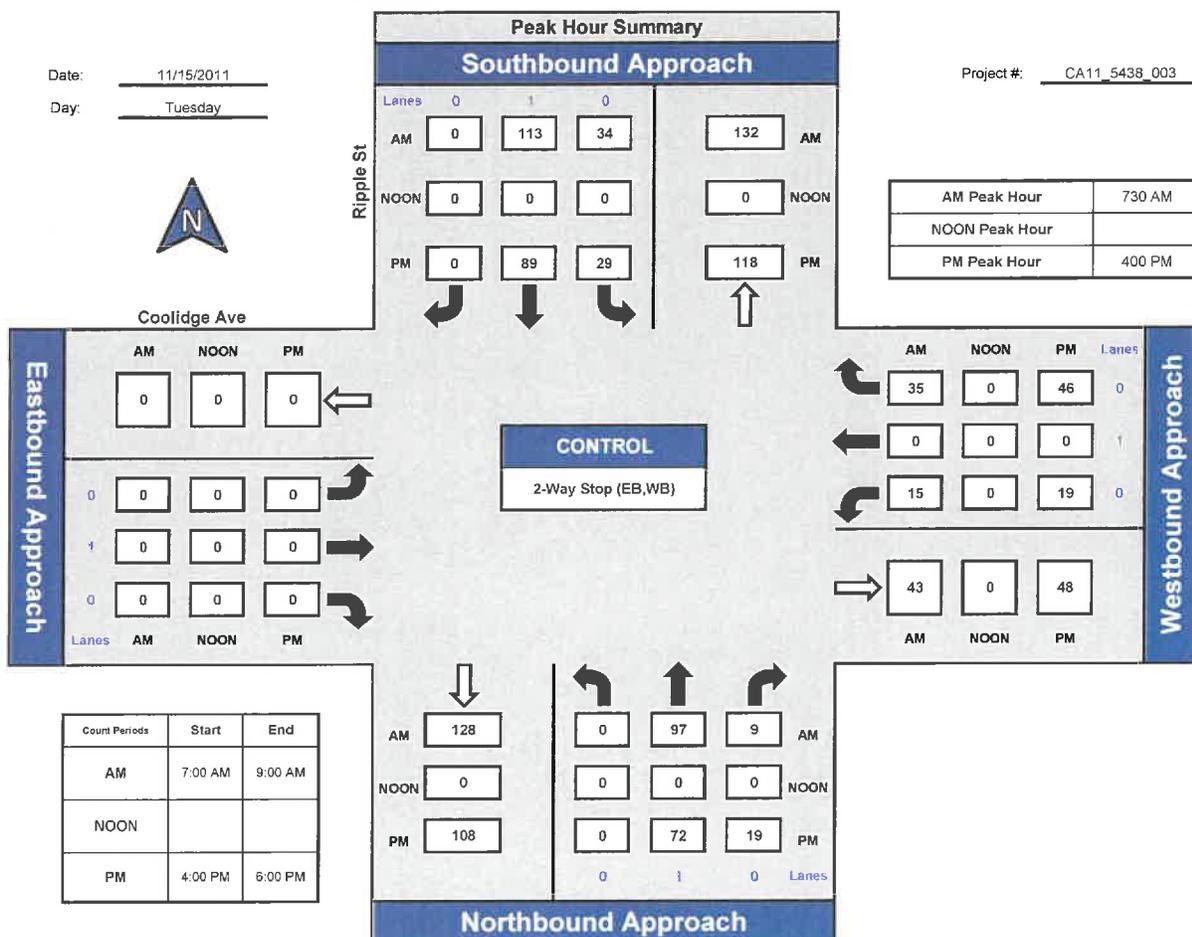
National Data & Surveying Services

## Ripple St and Coolidge Ave, City of Los Angeles

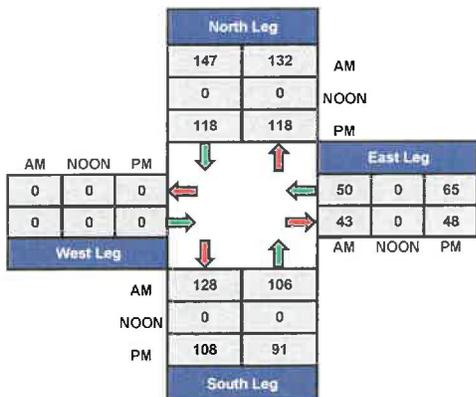
Date: 11/15/2011

Day: Tuesday

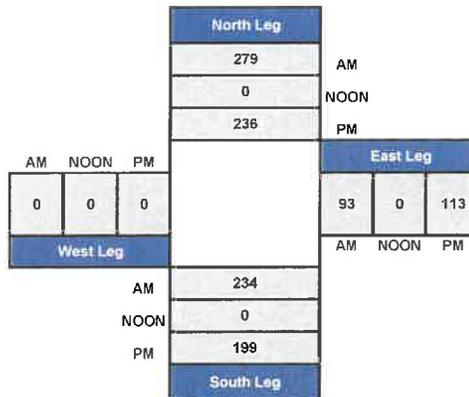
Project #: CA11\_5438\_003



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary



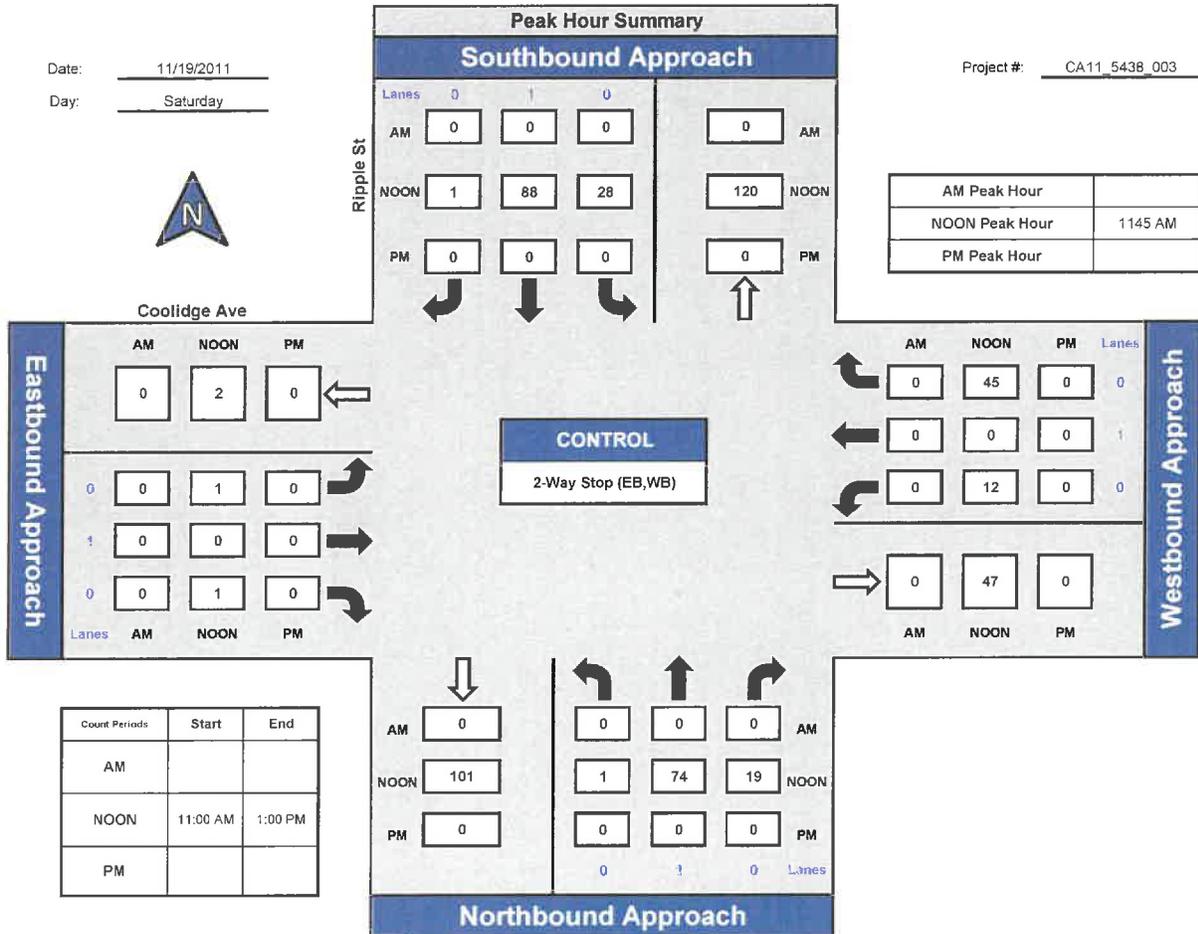
Prepared by:  
National Data & Surveying Services

## Ripple St and Coolidge Ave, City of Los Angeles

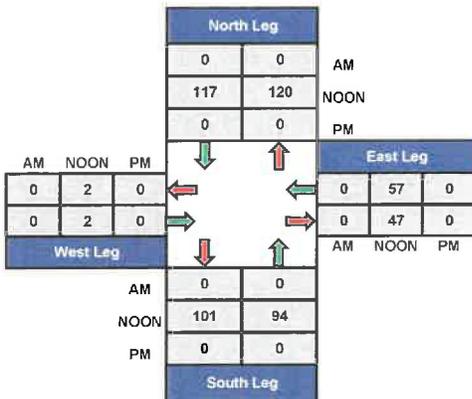
Date: 11/19/2011

Day: Saturday

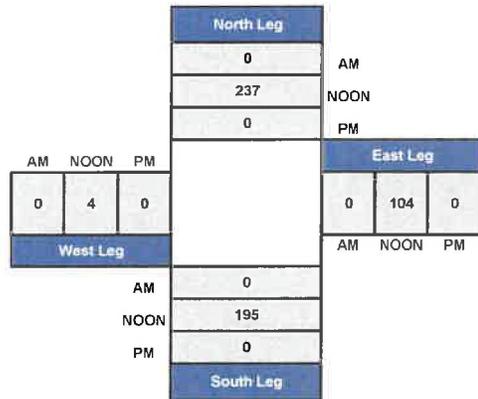
Project #: CA11\_5438\_003



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

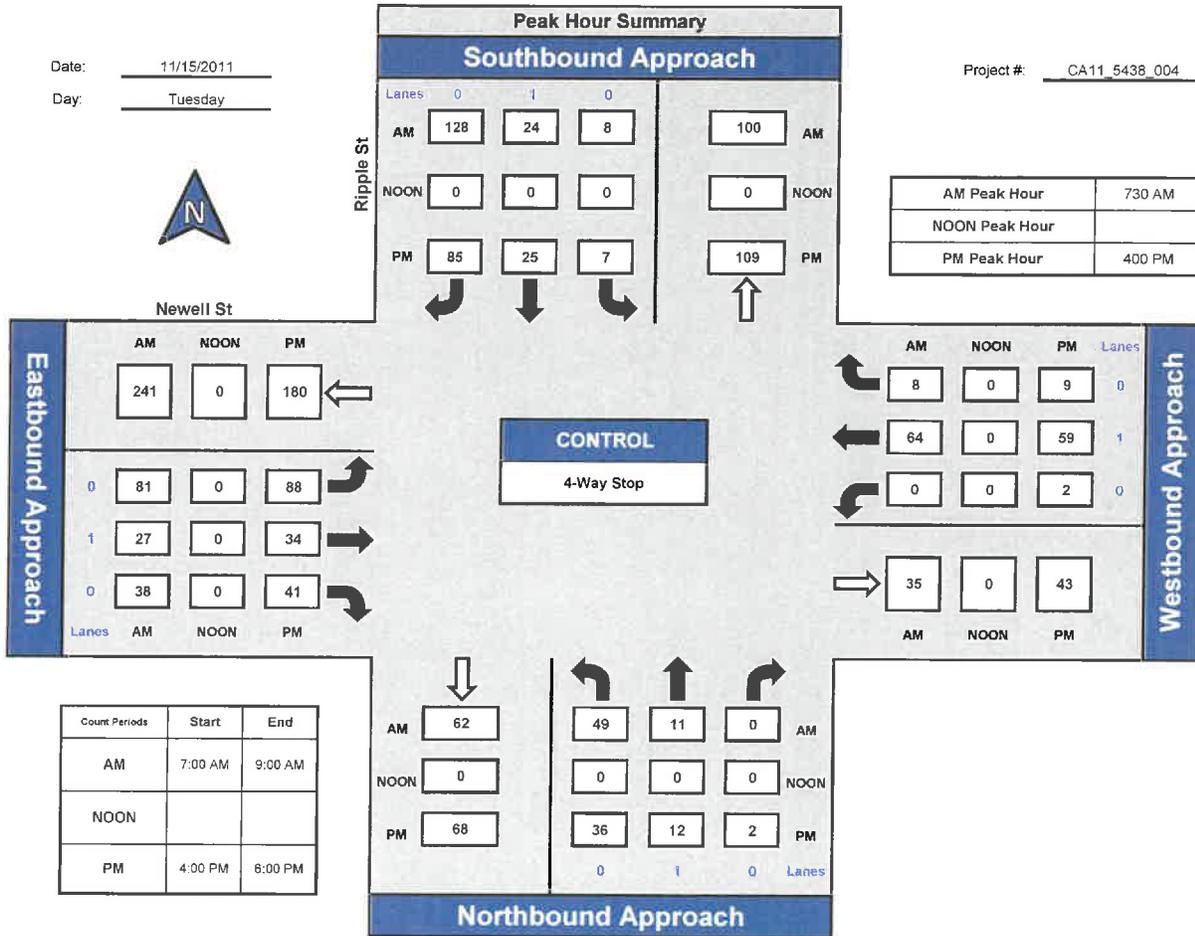
Prepared by:  
**NDS**

National Data & Surveying Services

## Ripple St and Newell St, City of Los Angeles

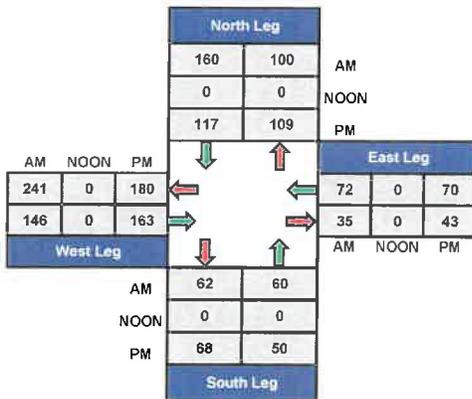
Date: 11/15/2011  
Day: Tuesday

Project #: CA11\_5438\_004

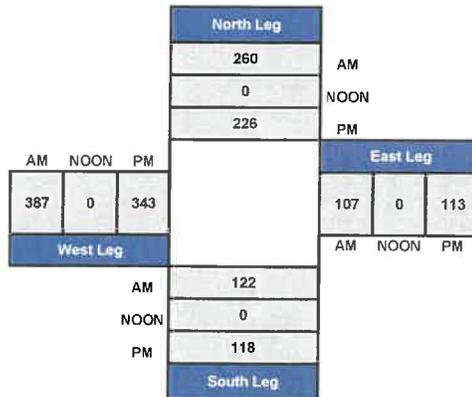


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



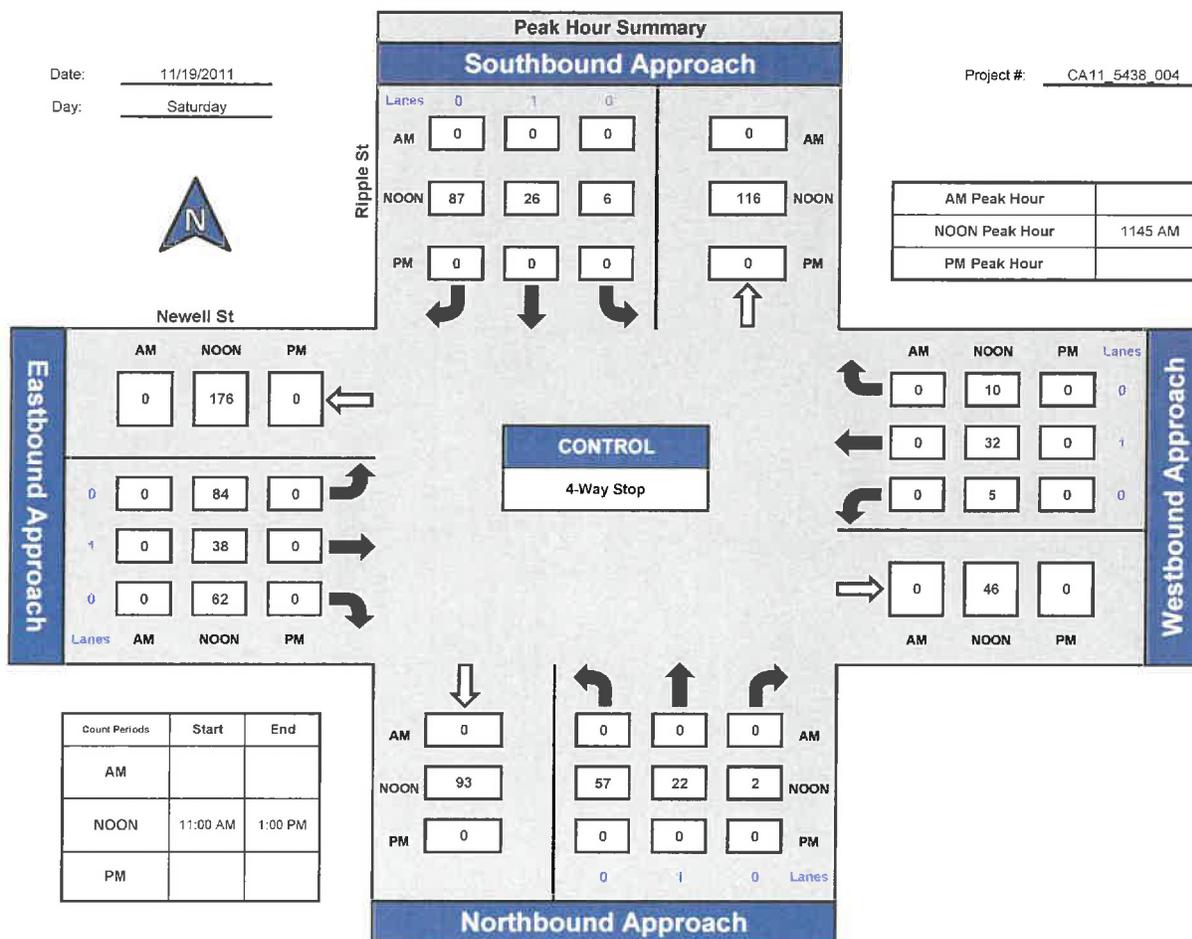
National Data & Surveying Services

## Ripple St and Newell St, City of Los Angeles

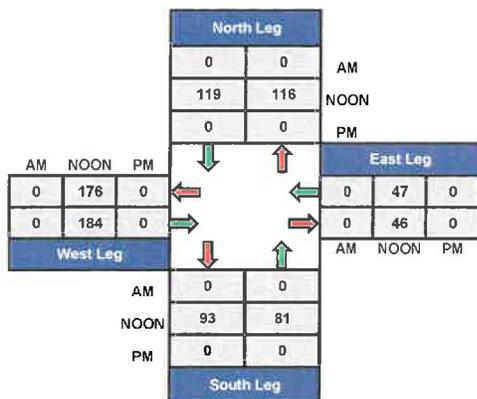
Date: 11/19/2011

Day: Saturday

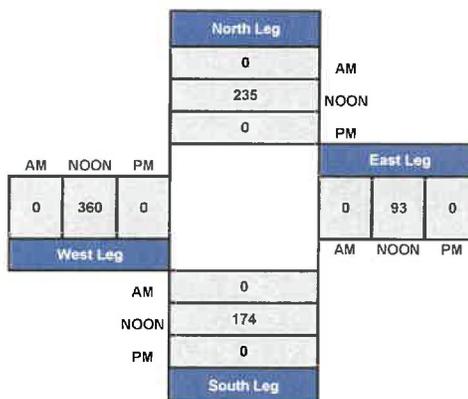
Project #: CA11\_5438\_004



### Total Ins & Outs



### Total Volume Per Leg



**VOLUME**

Glenenden St between Ripple St & proposed part exit

Day: Tuesday  
Date: 11/15/2011

City: Los Angeles  
Project #: CA11\_5439\_001

DAILY TOTALS					NB	SB	EB	WB	Total			
					0	0	104	110	214			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			0	1	1	12:00			1	2	3	
00:15			0	0	0	12:15			2	1	3	
00:30			0	0	0	12:30			1	2	3	
00:45			1	1	0	12:45			1	5	2	7
01:00			0	0	0	13:00			1	2	3	
01:15			0	0	0	13:15			1	4	5	
01:30			0	0	0	13:30			3	1	4	
01:45			0	0	0	13:45			2	7	1	8
02:00			0	0	0	14:00			3	0	3	
02:15			0	0	0	14:15			1	1	2	
02:30			0	1	1	14:30			1	1	2	
02:45			0	0	1	14:45			0	5	1	3
03:00			0	0	0	15:00			0	0	0	
03:15			0	0	0	15:15			0	0	0	
03:30			0	1	1	15:30			2	3	5	
03:45			1	1	1	15:45			7	9	4	7
04:00			0	0	0	16:00			3	2	5	
04:15			0	0	0	16:15			3	4	7	
04:30			0	0	0	16:30			1	0	1	
04:45			0	0	0	16:45			1	8	5	11
05:00			0	0	0	17:00			3	1	4	
05:15			0	0	0	17:15			3	2	5	
05:30			0	0	0	17:30			2	3	5	
05:45			0	1	1	17:45			3	11	0	6
06:00			0	0	0	18:00			2	3	5	
06:15			0	2	2	18:15			2	0	2	
06:30			0	1	1	18:30			2	3	5	
06:45			2	2	2	18:45			2	8	0	6
07:00			0	2	2	19:00			2	0	2	
07:15			2	1	3	19:15			1	0	1	
07:30			1	6	7	19:30			1	2	3	
07:45			0	3	1	19:45			1	5	2	4
08:00			2	4	6	20:00			2	0	2	
08:15			3	4	7	20:15			2	4	6	
08:30			1	1	2	20:30			1	2	3	
08:45			1	7	1	20:45			0	5	1	7
09:00			1	1	2	21:00			3	2	5	
09:15			2	3	5	21:15			2	0	2	
09:30			0	1	1	21:30			0	0	0	
09:45			0	3	0	21:45			1	6	0	2
10:00			2	0	2	22:00			1	2	3	
10:15			0	2	2	22:15			0	1	1	
10:30			1	1	2	22:30			1	1	2	
10:45			3	6	2	22:45			0	2	0	4
11:00			2	2	4	23:00			0	0	0	
11:15			1	0	1	23:15			1	0	1	
11:30			0	1	1	23:30			2	0	2	
11:45			2	5	1	23:45			2	5	1	1
TOTALS			28	44	72	TOTALS			76	66	142	
SPLIT %			38.9%	61.1%	33.6%	SPLIT %			53.5%	46.5%	66.4%	

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	104	110	214
AM Peak Hour	08:00	07:30	07:30	PM Peak Hour	15:30	15:30	15:30		
AM Pk Volume	7	15	21	PM Pk Volume	15	13	28		
Pk Hr Factor	0.583	0.625	0.750	Pk Hr Factor	0.536	0.813	0.636		
7 - 9 Volume	10	20	30	4 - 6 Volume	19	17	36		
7 - 9 Peak Hour	08:00	07:30	07:30	4 - 6 Peak Hour	17:00	16:00	16:45		
7 - 9 Pk Volume	7	15	21	4 - 6 Pk Volume	11	11	20		
Pk Hr Factor	0.583	0.625	0.750	Pk Hr Factor	0.917	0.550	0.833		

**VOLUME**

Glenenden St between Ripple St & proposed part exit

Day: Wednesday  
Date: 11/16/2011

City: Los Angeles  
Project #: CA11\_5439\_001

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	96	101	197		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			0	1	1	12:00			1	2	3	
00:15			0	0	0	12:15			0	0	0	
00:30			0	0	0	12:30			3	1	4	
00:45			0	0	1	12:45			2	6	2	5
01:00			1	0	1	13:00			1	0	1	
01:15			0	0	0	13:15			1	0	1	
01:30			0	0	0	13:30			2	2	4	
01:45			0	1	0	13:45			1	5	2	4
02:00			0	0	0	14:00			2	3	5	
02:15			0	0	0	14:15			3	1	4	
02:30			0	0	0	14:30			0	2	2	
02:45			0	0	0	14:45			2	7	1	7
03:00			0	0	0	15:00			1	1	2	
03:15			0	0	0	15:15			2	1	3	
03:30			0	1	1	15:30			5	3	8	
03:45			1	1	1	15:45			2	10	1	6
04:00			0	0	0	16:00			4	1	5	
04:15			1	0	1	16:15			3	2	5	
04:30			0	0	0	16:30			2	1	3	
04:45			0	1	0	16:45			4	13	1	5
05:00			0	0	0	17:00			2	2	4	
05:15			0	0	0	17:15			0	0	0	
05:30			0	0	0	17:30			0	1	1	
05:45			0	1	1	17:45			1	3	3	6
06:00			1	2	3	18:00			2	0	2	
06:15			0	2	2	18:15			3	2	5	
06:30			1	1	2	18:30			2	3	5	
06:45			2	4	2	18:45			0	7	0	5
07:00			0	2	2	19:00			2	0	2	
07:15			0	1	1	19:15			1	0	1	
07:30			3	4	7	19:30			1	2	3	
07:45			1	4	6	19:45			0	4	0	2
08:00			2	2	4	20:00			1	0	1	
08:15			0	2	2	20:15			2	0	2	
08:30			2	1	3	20:30			0	1	1	
08:45			1	5	0	20:45			2	5	1	2
09:00			1	0	1	21:00			0	3	3	
09:15			0	2	2	21:15			0	0	0	
09:30			0	2	2	21:30			0	0	0	
09:45			0	1	0	21:45			3	3	0	3
10:00			0	0	0	22:00			2	0	2	
10:15			3	2	5	22:15			0	1	1	
10:30			2	2	4	22:30			0	0	0	
10:45			1	6	4	22:45			0	2	2	3
11:00			1	3	4	23:00			0	0	0	
11:15			0	1	1	23:15			0	1	1	
11:30			1	4	5	23:30			1	0	1	
11:45			4	6	3	23:45			1	2	0	1
<b>TOTALS</b>			29	52	81	<b>TOTALS</b>			67	49	116	
<b>SPLIT %</b>			35.8%	64.2%	41.1%	<b>SPLIT %</b>			57.8%	42.2%	58.9%	

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	96	101	197	
AM Peak Hour			11:45	07:30	07:30	PM Peak Hour			15:30	13:30	15:30
AM Pk Volume			8	14	20	PM Pk Volume			14	8	21
Pk Hr Factor			0.500	0.583	0.714	Pk Hr Factor			0.700	0.667	0.656
7 - 9 Volume			9	18	27	4 - 6 Volume			16	11	27
7 - 9 Peak Hour			07:15	07:30	07:30	4 - 6 Peak Hour			16:00	16:15	16:00
7 - 9 Pk Volume			6	14	20	4 - 6 Pk Volume			13	6	18
Pk Hr Factor			0.500	0.583	0.714	Pk Hr Factor			0.813	0.750	0.900

**VOLUME**

Glenenden St between Ripple St & proposed part exit

Day: Thursday  
Date: 11/17/2011

City: Los Angeles  
Project #: CA11\_5439\_001

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	89	97	186		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			2	0	2	12:00			0	1	1	
00:15			1	0	1	12:15			1	2	3	
00:30			0	0	0	12:30			2	2	4	
00:45			0	3	0	12:45			2	5	1	6
01:00			0	0	0	13:00			1	0	1	
01:15			0	0	0	13:15			2	1	3	
01:30			0	0	0	13:30			2	1	3	
01:45			0	0	0	13:45			3	8	2	4
02:00			0	0	0	14:00			1	2	3	
02:15			0	0	0	14:15			1	1	2	
02:30			0	0	0	14:30			0	3	3	
02:45			0	0	0	14:45			2	4	2	8
03:00			0	0	0	15:00			1	1	2	
03:15			0	0	0	15:15			1	0	1	
03:30			0	1	1	15:30			3	1	4	
03:45			0	0	1	15:45			1	6	2	4
04:00			1	1	2	16:00			4	1	5	
04:15			0	0	0	16:15			2	1	3	
04:30			0	0	0	16:30			3	2	5	
04:45			1	2	0	16:45			3	12	1	5
05:00			0	0	0	17:00			1	0	1	
05:15			0	0	0	17:15			0	1	1	
05:30			0	1	1	17:30			1	2	3	
05:45			0	0	1	17:45			1	3	2	5
06:00			0	2	2	18:00			2	1	3	
06:15			1	2	3	18:15			2	2	4	
06:30			2	1	3	18:30			1	1	2	
06:45			1	4	1	18:45			1	6	1	5
07:00			1	4	5	19:00			0	0	0	
07:15			2	0	2	19:15			1	0	1	
07:30			1	6	7	19:30			2	1	3	
07:45			1	5	4	19:45			1	4	1	2
08:00			1	4	5	20:00			0	0	0	
08:15			0	1	1	20:15			1	0	1	
08:30			2	0	2	20:30			0	1	1	
08:45			2	5	1	20:45			1	2	2	3
09:00			0	2	2	21:00			1	1	2	
09:15			0	2	2	21:15			0	0	0	
09:30			1	2	3	21:30			0	0	0	
09:45			1	2	2	21:45			1	2	0	1
10:00			1	1	2	22:00			1	1	2	
10:15			1	2	3	22:15			3	1	4	
10:30			0	2	2	22:30			1	0	1	
10:45			1	3	1	22:45			1	6	1	3
11:00			0	2	2	23:00			0	0	0	
11:15			1	2	3	23:15			1	0	1	
11:30			2	1	3	23:30			1	0	1	
11:45			2	5	3	23:45			0	2	0	
<b>TOTALS</b>			29	51	80	<b>TOTALS</b>			60	46	106	
<b>SPLIT %</b>			36.3%	63.8%	43.0%	<b>SPLIT %</b>			56.6%	43.4%	57.0%	

DAILY TOTALS						NB	SB	EB	WB	Total
						0	0	89	97	186
AM Peak Hour		06:30	07:30	07:00	PM Peak Hour		16:00	13:45	16:00	
AM Pk Volume		6	15	19	PM Pk Volume		12	8	17	
Pk Hr Factor		0.750	0.625	0.679	Pk Hr Factor		0.750	0.667	0.850	
7 - 9 Volume		10	20	30	4 - 6 Volume		15	10	25	
7 - 9 Peak Hour		07:00	07:30	07:00	4 - 6 Peak Hour		16:00	16:00	16:00	
7 - 9 Pk Volume		5	15	19	4 - 6 Pk Volume		12	5	17	
Pk Hr Factor		0.625	0.625	0.679	Pk Hr Factor		0.750	0.625	0.850	

**VOLUME**

Rosanna St between Ripple St & proposed park entrance/exit

Day: Tuesday  
Date: 11/15/2011

City: Los Angeles  
Project #: CA11\_5439\_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	192	177	369		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			3	1	4	12:00			3	1	4
00:15			1	0	1	12:15			5	6	11
00:30			0	0	0	12:30			3	1	4
00:45			0	4	0	12:45			2	13	0
01:00			0	0	0	13:00			2	2	4
01:15			0	0	0	13:15			3	0	3
01:30			0	0	0	13:30			2	0	2
01:45			0	0	0	13:45			1	8	5
02:00			1	0	1	14:00			6	3	9
02:15			0	0	0	14:15			3	3	6
02:30			1	0	1	14:30			4	4	8
02:45			0	2	0	14:45			4	17	3
03:00			0	0	0	15:00			6	5	11
03:15			0	0	0	15:15			5	3	8
03:30			0	0	0	15:30			5	4	9
03:45			1	1	1	15:45			7	23	3
04:00			1	0	1	16:00			3	1	4
04:15			0	1	1	16:15			3	6	9
04:30			0	0	0	16:30			5	6	11
04:45			0	1	0	16:45			5	16	3
05:00			0	1	1	17:00			3	4	7
05:15			0	1	1	17:15			4	2	6
05:30			0	0	0	17:30			6	2	8
05:45			0	1	3	17:45			3	16	2
06:00			0	1	1	18:00			3	1	4
06:15			0	1	1	18:15			3	2	5
06:30			1	3	4	18:30			2	5	7
06:45			0	1	2	18:45			2	10	4
07:00			0	2	2	19:00			1	4	5
07:15			0	4	4	19:15			1	2	3
07:30			5	7	12	19:30			4	3	7
07:45			1	6	3	19:45			6	12	2
08:00			3	3	6	20:00			2	1	3
08:15			5	5	10	20:15			1	1	2
08:30			2	5	7	20:30			1	0	1
08:45			1	11	1	20:45			3	7	0
09:00			2	2	4	21:00			2	1	3
09:15			1	0	1	21:15			3	3	6
09:30			1	4	5	21:30			3	3	6
09:45			1	5	0	21:45			1	9	0
10:00			4	1	5	22:00			2	1	3
10:15			1	2	3	22:15			1	0	1
10:30			0	4	4	22:30			0	0	0
10:45			4	9	3	22:45			1	4	2
11:00			4	2	6	23:00			4	0	4
11:15			2	5	7	23:15			1	0	1
11:30			3	5	8	23:30			0	0	0
11:45			2	11	2	23:45			1	6	0
TOTALS			51	73	124	TOTALS			141	104	245
SPLIT %			41.1%	58.9%	33.6%	SPLIT %			57.6%	42.4%	66.4%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	192	177	369		
AM Peak Hour			07:30	07:30	07:30	PM Peak Hour			15:00	16:15	15:00
AM Pk Volume			14	18	32	PM Pk Volume			23	19	38
Pk Hr Factor			0.700	0.643	0.667	Pk Hr Factor			0.821	0.792	0.864
7 - 9 Volume			17	30	47	4 - 6 Volume			32	26	58
7 - 9 Peak Hour			07:30	07:30	07:30	4 - 6 Peak Hour			16:45	16:15	16:15
7 - 9 Pk Volume			14	18	32	4 - 6 Pk Volume			18	19	35
Pk Hr Factor			0.700	0.643	0.667	Pk Hr Factor			0.750	0.792	0.795

**VOLUME**

Rosanna St between Ripple St & proposed park entrance/exit

Day: Wednesday  
Date: 11/16/2011

City: Los Angeles  
Project #: CA11\_5439\_002

DAILY TOTALS					NB	SB	EB	WB	Total			
					0	0	171	168	339			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			0	0	0	12:00			5	1	6	
00:15			1	1	2	12:15			3	3	6	
00:30			0	0	0	12:30			2	3	5	
00:45			0	1	0	12:45			4	14	3	10
01:00			0	0	0	13:00			1	2	3	
01:15			1	0	1	13:15			2	2	4	
01:30			1	0	1	13:30			0	1	1	
01:45			0	2	1	13:45			3	6	2	7
02:00			0	0	0	14:00			2	3	5	
02:15			0	0	0	14:15			4	5	9	
02:30			1	0	1	14:30			5	3	8	
02:45			0	1	0	14:45			3	14	4	15
03:00			0	0	0	15:00			0	2	2	
03:15			0	0	0	15:15			5	3	8	
03:30			0	0	0	15:30			1	3	4	
03:45			1	1	0	15:45			6	12	1	9
04:00			0	0	0	16:00			4	4	8	
04:15			0	0	0	16:15			2	1	3	
04:30			0	0	0	16:30			3	3	6	
04:45			0	0	0	16:45			2	11	2	10
05:00			0	0	0	17:00			5	5	10	
05:15			0	1	1	17:15			8	5	13	
05:30			0	0	0	17:30			2	1	3	
05:45			0	0	1	17:45			2	17	4	15
06:00			0	2	2	18:00			1	0	1	
06:15			1	2	3	18:15			4	2	6	
06:30			1	3	4	18:30			3	1	4	
06:45			1	3	5	18:45			0	8	1	4
07:00			1	1	2	19:00			3	5	8	
07:15			1	5	6	19:15			3	0	3	
07:30			3	4	7	19:30			6	2	8	
07:45			1	6	6	19:45			3	15	3	10
08:00			4	4	8	20:00			3	1	4	
08:15			2	2	4	20:15			2	2	4	
08:30			2	4	6	20:30			0	0	0	
08:45			1	9	2	20:45			4	9	1	4
09:00			0	3	3	21:00			3	3	6	
09:15			2	1	3	21:15			1	0	1	
09:30			0	0	0	21:30			1	1	2	
09:45			1	3	0	21:45			0	5	2	6
10:00			1	1	2	22:00			3	1	4	
10:15			6	2	8	22:15			0	0	0	
10:30			2	5	7	22:30			1	2	3	
10:45			2	11	3	22:45			4	8	3	6
11:00			2	5	7	23:00			3	1	4	
11:15			2	3	5	23:15			2	0	2	
11:30			3	2	5	23:30			1	0	1	
11:45			2	9	3	23:45			0	6	0	1
TOTALS			46	71	117	TOTALS			125	97	222	
SPLIT %			39.3%	60.7%	34.5%	SPLIT %			56.3%	43.7%	65.5%	

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	171	168	339		
AM Peak Hour			11:30	07:15	07:15	PM Peak Hour			16:30	14:00	16:30
AM Pk Volume			13	19	28	PM Pk Volume			18	15	33
Pk Hr Factor			0.650	0.792	0.875	Pk Hr Factor			0.563	0.750	0.635
7 - 9 Volume			15	28	43	4 - 6 Volume			28	25	53
7 - 9 Peak Hour			07:30	07:15	07:15	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume			10	19	28	4 - 6 Pk Volume			18	15	33
Pk Hr Factor			0.625	0.792	0.875	Pk Hr Factor			0.563	0.750	0.635

### VOLUME

Rosanna St between Ripple St & proposed park entrance/exit

Day: Thursday  
Date: 11/17/2011

City: Los Angeles  
Project #: CA11\_5439\_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	150	160	310		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			1	0	1	12:00			4	1	5
00:15			0	2	2	12:15			3	3	6
00:30			0	0	0	12:30			2	2	4
00:45			0	1	0	12:45		2	11	4	10
01:00			0	1	1	13:00			3	2	5
01:15			0	0	0	13:15			1	1	2
01:30			1	0	1	13:30			1	0	1
01:45			1	2	0	13:45		2	7	1	4
02:00			1	1	2	14:00		3		3	6
02:15			0	0	0	14:15		2		4	6
02:30			0	0	0	14:30		4		5	9
02:45			1	2	0	14:45		2	11	2	14
03:00			0	0	0	15:00			1	1	2
03:15			0	0	0	15:15			3	3	6
03:30			0	0	0	15:30			3	5	8
03:45			0	0	0	15:45		2	9	3	12
04:00			1	1	2	16:00			2	2	4
04:15			0	0	0	16:15			5	1	6
04:30			1	0	1	16:30			2	3	5
04:45			0	2	1	16:45		1	10	4	10
05:00			0	0	0	17:00		4		3	7
05:15			0	1	1	17:15		6		2	8
05:30			1	1	2	17:30		3		1	4
05:45			1	2	1	17:45		2	15	1	7
06:00			0	2	2	18:00			1	2	3
06:15			0	3	3	18:15			3	1	4
06:30			2	4	6	18:30			1	0	1
06:45			0	2	2	18:45		2	7	1	4
07:00			1	3	4	19:00			3	2	5
07:15			2	4	6	19:15			1	2	3
07:30			2	5	7	19:30			4	1	5
07:45			0	5	5	19:45		4	12	2	7
08:00			2	4	6	20:00			2	2	4
08:15			3	2	5	20:15			1	4	5
08:30			1	3	4	20:30			2	3	5
08:45			1	7	2	20:45		3	8	2	11
09:00			0	2	2	21:00			2	1	3
09:15			1	0	1	21:15			1	0	1
09:30			2	1	3	21:30			1	0	1
09:45			1	4	1	21:45		2	6	1	2
10:00			1	0	1	22:00			1	2	3
10:15			4	2	6	22:15			1	1	2
10:30			2	4	6	22:30			1	1	2
10:45			2	9	2	22:45		2	5	0	4
11:00			1	3	4	23:00			2	1	3
11:15			3	4	7	23:15			1	0	1
11:30			3	3	6	23:30			0	1	1
11:45			1	8	2	23:45		2	5	1	3
<b>TOTALS</b>			44	72	116	<b>TOTALS</b>			106	88	194
<b>SPLIT %</b>			37.9%	62.1%	37.4%	<b>SPLIT %</b>			54.6%	45.4%	62.6%

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	150	160	310
AM Peak Hour	11:15	07:15	07:15	PM Peak Hour	17:00	14:00	14:00		
AM Pk Volume	11	18	24	PM Pk Volume	15	14	25		
Pk Hr Factor	0.688	0.900	0.857	Pk Hr Factor	0.625	0.700	0.694		
7 - 9 Volume	12	28	40	4 - 6 Volume	25	17	42		
7 - 9 Peak Hour	07:30	07:15	07:15	4 - 6 Peak Hour	17:00	16:30	16:30		
7 - 9 Pk Volume	7	18	24	4 - 6 Pk Volume	15	12	25		
Pk Hr Factor	0.583	0.900	0.857	Pk Hr Factor	0.625	0.750	0.781		

**VOLUME**

Ripple St S/o Rossanna St

Day: Tuesday  
Date: 11/15/2011City: Los Angeles  
Project #: CA11\_5439\_003

DAILY TOTALS					NB	SB	EB	WB	Total		
					1,868	2,009	0	0	3,877		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	3	5			8	12:00	32	22			54
00:15	1	3			4	12:15	29	32			61
00:30	2	3			5	12:30	23	30			53
00:45	0	6	3	14	3	12:45	28	112	31	115	227
01:00	0	2			2	13:00	47	26			73
01:15	4	3			7	13:15	29	26			55
01:30	0	0			0	13:30	29	34			63
01:45	1	5	2	7	3	13:45	36	141	41	127	268
02:00	1	2			3	14:00	30	43			73
02:15	1	0			1	14:15	34	30			64
02:30	1	2			3	14:30	25	33			58
02:45	1	4	4	8	5	14:45	31	120	35	141	261
03:00	2	0			2	15:00	30	32			62
03:15	1	0			1	15:15	40	34			74
03:30	2	0			2	15:30	24	43			67
03:45	1	6	4	4	5	15:45	41	135	43	152	287
04:00	1	3			4	16:00	32	35			67
04:15	1	4			5	16:15	37	30			67
04:30	2	1			3	16:30	36	39			75
04:45	4	8	0	8	4	16:45	48	153	37	141	294
05:00	8	5			13	17:00	36	35			71
05:15	6	5			11	17:15	25	42			67
05:30	5	3			8	17:30	32	35			67
05:45	13	32	7	20	20	17:45	36	129	45	157	286
06:00	13	10			23	18:00	30	35			65
06:15	11	11			22	18:15	37	25			62
06:30	17	19			36	18:30	26	38			64
06:45	28	69	32	72	60	18:45	29	122	44	142	264
07:00	37	30			67	19:00	31	37			68
07:15	35	31			66	19:15	24	24			48
07:30	65	38			103	19:30	28	28			56
07:45	50	187	41	140	91	19:45	18	101	33	122	223
08:00	43	35			78	20:00	18	20			38
08:15	28	35			63	20:15	10	22			32
08:30	23	19			42	20:30	11	18			29
08:45	32	126	9	98	41	20:45	5	44	17	77	121
09:00	24	20			44	21:00	19	20			39
09:15	22	23			45	21:15	4	19			23
09:30	25	24			49	21:30	4	22			26
09:45	28	99	22	89	50	21:45	6	33	17	78	111
10:00	28	23			51	22:00	7	10			17
10:15	22	25			47	22:15	4	19			23
10:30	16	19			35	22:30	4	14			18
10:45	20	86	21	88	41	22:45	4	19	11	54	73
11:00	29	20			49	23:00	3	9			12
11:15	26	37			63	23:15	5	7			12
11:30	37	33			70	23:30	3	10			13
11:45	23	115	32	122	55	23:45	5	16	7	33	49
<b>TOTALS</b>	<b>743</b>	<b>670</b>			<b>1413</b>	<b>TOTALS</b>	<b>1125</b>	<b>1339</b>			<b>2464</b>
<b>SPLIT %</b>	<b>52.6%</b>	<b>47.4%</b>			<b>36.4%</b>	<b>SPLIT %</b>	<b>45.7%</b>	<b>54.3%</b>			<b>63.6%</b>

DAILY TOTALS					NB	SB	EB	WB	Total
					1,868	2,009	0	0	3,877
AM Peak Hour	07:15	07:30			07:15	PM Peak Hour	16:15	17:00	16:15
AM Pk Volume	193	149			338	PM Pk Volume	157	157	298
Pk Hr Factor	0.742	0.909			0.820	Pk Hr Factor	0.818	0.872	0.876
7 - 9 Volume	313	238			551	4 - 6 Volume	282	298	580
7 - 9 Peak Hour	07:15	07:30			07:15	4 - 6 Peak Hour	16:15	17:00	16:15
7 - 9 Pk Volume	193	149			338	4 - 6 Pk Volume	157	157	298
Pk Hr Factor	0.742	0.909			0.820	Pk Hr Factor	0.818	0.872	0.876

## VOLUME

Ripple St S/o Rossanna St

Day: Wednesday  
Date: 11/16/2011

City: Los Angeles  
Project #: CA11\_5439\_003

DAILY TOTALS					NB	SB	EB	WB	Total		
					1,812	1,962	0	0	3,774		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	5			5	12:00	26	30			56
00:15	1	2			3	12:15	25	37			62
00:30	1	2			3	12:30	28	30			58
00:45	1	3	4	13	5	12:45	30	109	24	121	54
01:00	2	5			7	13:00	28	19			47
01:15	0	0			0	13:15	30	28			58
01:30	2	1			3	13:30	31	24			55
01:45	0	4	3	9	3	13:45	25	114	30	101	55
02:00	2	1			3	14:00	36	26			62
02:15	0	1			1	14:15	38	32			70
02:30	2	5			7	14:30	35	25			60
02:45	3	7	1	8	4	14:45	23	132	33	116	56
03:00	1	1			2	15:00	29	34			63
03:15	0	1			1	15:15	40	38			78
03:30	2	0			2	15:30	29	39			68
03:45	1	4	3	5	4	15:45	29	127	40	151	69
04:00	2	2			4	16:00	37	32			69
04:15	3	3			6	16:15	35	38			73
04:30	3	1			4	16:30	43	43			86
04:45	6	14	3	9	9	16:45	31	146	34	147	65
05:00	4	1			5	17:00	34	36			70
05:15	5	5			10	17:15	34	49			83
05:30	8	7			15	17:30	38	42			80
05:45	13	30	3	16	16	17:45	28	134	43	170	71
06:00	18	14			32	18:00	26	46			72
06:15	13	14			27	18:15	25	31			56
06:30	19	17			36	18:30	18	32			50
06:45	29	79	37	82	66	18:45	25	94	29	138	54
07:00	29	26			55	19:00	20	32			52
07:15	50	37			87	19:15	13	25			38
07:30	48	38			86	19:30	17	25			42
07:45	59	186	42	143	101	19:45	18	68	23	105	41
08:00	46	44			90	20:00	20	29			49
08:15	24	29			53	20:15	13	23			36
08:30	28	20			48	20:30	11	18			29
08:45	32	130	19	112	51	20:45	5	49	24	94	29
09:00	14	28			42	21:00	10	10			20
09:15	13	21			34	21:15	12	20			32
09:30	20	22			42	21:30	11	20			31
09:45	18	65	21	92	39	21:45	7	40	19	69	26
10:00	40	20			60	22:00	10	13			23
10:15	28	28			56	22:15	3	12			15
10:30	31	20			51	22:30	8	12			20
10:45	35	134	24	92	59	22:45	3	24	8	45	11
11:00	29	31			60	23:00	4	10			14
11:15	19	28			47	23:15	6	11			17
11:30	17	16			33	23:30	2	6			8
11:45	41	106	18	93	59	23:45	1	13	4	31	5
<b>TOTALS</b>	<b>762</b>	<b>674</b>			<b>1436</b>	<b>TOTALS</b>	<b>1050</b>	<b>1288</b>			<b>2338</b>
<b>SPLIT %</b>	<b>53.1%</b>	<b>46.9%</b>			<b>38.0%</b>	<b>SPLIT %</b>	<b>44.9%</b>	<b>55.1%</b>			<b>62.0%</b>

DAILY TOTALS					NB	SB	EB	WB	Total
					1,812	1,962	0	0	3,774
AM Peak Hour	07:15	07:15			07:15	PM Peak Hour	16:00	17:15	17:15
AM Pk Volume	203	161			364	PM Pk Volume	146	180	306
Pk Hr Factor	0.860	0.915			0.901	Pk Hr Factor	0.849	0.918	0.922
7 - 9 Volume	316	255			571	4 - 6 Volume	280	317	597
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:00	17:00	16:30
7 - 9 Pk Volume	203	161			364	4 - 6 Pk Volume	146	170	304
Pk Hr Factor	0.860	0.915			0.901	Pk Hr Factor	0.849	0.867	0.884

**VOLUME**

Ripple St S/o Rossanna St

Day: Thursday  
Date: 11/17/2011City: Los Angeles  
Project #: CA11\_5439\_003

DAILY TOTALS					NB	SB	EB	WB	Total		
					2,049	2,029	0	0	4,078		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	3	5			8	12:00	43	33			76
00:15	2	4			6	12:15	32	28			60
00:30	4	1			5	12:30	20	30			50
00:45	0	9	2	12	21	12:45	28	123	24	115	238
01:00	1	2			3	13:00	28	28			56
01:15	0	0			0	13:15	36	28			64
01:30	0	0			0	13:30	29	19			48
01:45	0	1	0	2	3	13:45	22	115	17	92	207
02:00	4	0			4	14:00	34	27			61
02:15	1	3			4	14:15	35	30			65
02:30	3	2			5	14:30	42	40			82
02:45	1	9	4	9	18	14:45	35	146	40	137	283
03:00	5	0			5	15:00	36	32			68
03:15	2	0			2	15:15	46	49			95
03:30	3	1			4	15:30	38	44			82
03:45	1	11	0	1	12	15:45	44	164	39	164	328
04:00	2	3			5	16:00	43	33			76
04:15	6	3			9	16:15	38	41			79
04:30	4	1			5	16:30	23	24			47
04:45	4	16	4	11	27	16:45	29	133	34	132	265
05:00	4	4			8	17:00	46	36			82
05:15	7	3			10	17:15	47	41			88
05:30	11	6			17	17:30	36	42			78
05:45	14	36	6	19	55	17:45	31	160	37	156	316
06:00	12	6			18	18:00	31	34			65
06:15	12	16			28	18:15	29	32			61
06:30	20	19			39	18:30	19	34			53
06:45	20	64	25	66	130	18:45	25	104	32	132	236
07:00	31	23			54	19:00	18	37			55
07:15	47	30			77	19:15	22	32			54
07:30	70	44			114	19:30	22	19			41
07:45	62	210	45	142	352	19:45	17	79	30	118	197
08:00	42	40			82	20:00	19	25			44
08:15	28	49			77	20:15	18	24			42
08:30	25	25			50	20:30	16	15			31
08:45	31	126	25	139	265	20:45	19	72	17	81	153
09:00	29	24			53	21:00	23	26			49
09:15	19	34			53	21:15	14	24			38
09:30	23	21			44	21:30	19	20			39
09:45	32	103	25	104	207	21:45	18	74	18	88	162
10:00	22	27			49	22:00	8	23			31
10:15	30	20			50	22:15	12	21			33
10:30	37	36			73	22:30	12	9			21
10:45	30	119	24	107	226	22:45	7	39	18	71	110
11:00	38	25			63	23:00	6	12			18
11:15	25	23			48	23:15	8	4			12
11:30	24	27			51	23:30	6	10			16
11:45	26	113	26	101	214	23:45	3	23	4	30	53
<b>TOTALS</b>	<b>817</b>	<b>713</b>			<b>1530</b>	<b>TOTALS</b>	<b>1232</b>	<b>1316</b>			<b>2548</b>
<b>SPLIT %</b>	<b>53.4%</b>	<b>46.6%</b>			<b>37.5%</b>	<b>SPLIT %</b>	<b>48.4%</b>	<b>51.6%</b>			<b>62.5%</b>

DAILY TOTALS					NB	SB	EB	WB	Total
					2,049	2,029	0	0	4,078
AM Peak Hour	07:15	07:30	07:15	PM Peak Hour	15:15	14:45	15:15		
AM Pk Volume	221	178	380	PM Pk Volume	171	165	336		
Pk Hr Factor	0.789	0.908	0.833	Pk Hr Factor	0.929	0.842	0.884		
7 - 9 Volume	336	281	617	4 - 6 Volume	293	288	581		
7 - 9 Peak Hour	07:15	07:30	07:15	4 - 6 Peak Hour	17:00	17:00	17:00		
7 - 9 Pk Volume	221	178	380	4 - 6 Pk Volume	160	156	316		
Pk Hr Factor	0.789	0.908	0.833	Pk Hr Factor	0.851	0.929	0.898		

## APPENDIX B

### Level of Service Analysis Worksheets

-----  
 Level Of Service Computation Report  
 Circular 212 Operations Method (Base Volume Alternative)  
 \*\*\*\*\*

Intersection #1 Ripple St/Rosanna St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.196  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 18 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0 1 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	188	2	5	0	9	15	10	9	138	6	11	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	2	5	0	9	15	10	9	138	6	11	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	188	2	5	0	9	15	10	9	138	6	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	2	5	0	9	15	10	9	138	6	11	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	2	5	0	9	15	10	9	138	6	11	1

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.96	0.01	0.03	0.00	0.38	0.62	0.06	0.06	0.88	0.33	0.61	0.06
Final Sat.:	1735	18	46	0	675	1125	115	103	1582	600	1100	100

Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.00	0.01	0.01	0.09	0.09	0.09	0.01	0.01	0.01
Crit Moves:	****						****					

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Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #2 Ripple St/Marsh St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.087
Loss Time (sec):      0           Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        16          Level Of Service:                A
*****
Approach:             North Bound   South Bound   East Bound   West Bound
Movement:             L - T - R     L - T - R     L - T - R     L - T - R
-----|-----|-----|-----|
Control:              Permitted     Permitted     Permitted     Permitted
Rights:               Include       Include       Include       Include
Min. Green:           0 0 0         0 0 0         0 0 0         0 0 0
Y+R:                  4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0
Lanes:                0 0 0 1 0     0 0 1 0 0     0 0 0 0 0     0 0 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             0 131 8       0 109 0       0 0 0         17 0 1
Growth Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:          0 131 8       0 109 0       0 0 0         17 0 1
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           0 131 8       0 109 0       0 0 0         17 0 1
Reduct Vol:           0 0 0         0 0 0         0 0 0         0 0 0
Reduced Vol:         0 131 8       0 109 0       0 0 0         17 0 1
PCE Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:         0 131 8       0 109 0       0 0 0         17 0 1
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:            1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:               0.00 0.94 0.06 0.00 1.00 0.00 0.00 0.00 0.00 0.94 0.00 0.06
Final Sat.:          0 1696 104 0 1800 0 0 0 0 1700 0 100
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:             0.00 0.08 0.08 0.00 0.06 0.00 0.00 0.00 0.00 0.01 0.00 0.01
Crit Moves:          ****                               ****
*****

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Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #3 Ripple St/Coolidge Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.109
Loss Time (sec):      0          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        16          Level Of Service:          A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 1! 0 0      0 0 1! 0 0
-----
Volume Module:
Base Vol:      0 97 9 34 113 0 0 0 0 15 0 35
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0 97 9 34 113 0 0 0 0 15 0 35
User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0 97 9 34 113 0 0 0 0 15 0 35
Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:  0 97 9 34 113 0 0 0 0 15 0 35
PCE Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  0 97 9 34 113 0 0 0 0 15 0 35
-----
Saturation Flow Module:
Sat/Lane:     1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:        0.00 0.92 0.08 0.23 0.77 0.00 0.00 1.00 0.00 0.30 0.00 0.70
Final Sat.:   0 1647 153 416 1384 0 0 1800 0 540 0 1260
-----
Capacity Analysis Module:
Vol/Sat:      0.00 0.06 0.06 0.08 0.08 0.00 0.00 0.00 0.00 0.03 0.00 0.03
Crit Moves:          ****          ****
*****

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Level Of Service Computation Report  
Circular 212 Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #4 Ripple St/Newell St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.170  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 17 Level Of Service: A  
\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	11	0	8	24	128	81	27	38	0	64	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	11	0	8	24	128	81	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	128	81	27	38	0	64	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	11	0	8	24	128	81	27	38	0	64	8

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	1470	330	0	90	270	1440	999	333	468	0	1600	200

Capacity Analysis Module:

Vol/Sat:	0.03	0.03	0.00	0.09	0.09	0.09	0.08	0.08	0.08	0.00	0.04	0.04
Crit Moves:				****			****					

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Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #1 Ripple St/Rosanna St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.179
Loss Time (sec):      0          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        18          Level Of Service:          A
*****
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Permitted      Permitted      Permitted      Permitted
Rights:               Include        Include        Include        Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Y+R:                  4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:                0  1  0  0  0      0  0  1! 0  0      0  0  1! 0  0      0  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             136  5  0          1  2  13          12  17  152          4  11  1
Growth Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:          136  5  0          1  2  13          12  17  152          4  11  1
User Adj:             1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:           136  5  0          1  2  13          12  17  152          4  11  1
Reduct Vol:           0  0  0          0  0  0          0  0  0          0  0  0
Reduced Vol:          136  5  0          1  2  13          12  17  152          4  11  1
PCE Adj:              1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:          136  5  0          1  2  13          12  17  152          4  11  1
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1800 1800 1800      1800 1800 1800      1800 1800 1800      1800 1800 1800
Adjustment:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Lanes:                0.96 0.04 0.00      0.06 0.12 0.82      0.07 0.09 0.84      0.25 0.69 0.06
Final Sat.:           1736  64  0          113  225 1463      119  169 1512      450 1238 113
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.08 0.08 0.00      0.01 0.01 0.01      0.10 0.10 0.10      0.01 0.01 0.01
Crit Moves:          ****                          ****
*****

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                        Level Of Service Computation Report
                        Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #2 Ripple St/Marsh St
*****
Cycle (sec):           100                Critical Vol./Cap.(X):           0.058
Loss Time (sec):       0                  Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         15                 Level Of Service:              A
*****
Approach:              North Bound        South Bound        East Bound        West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:               Permitted        Permitted        Permitted        Permitted
Rights:               Include         Include         Include         Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Y+R:                  4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:                0  0  0  1  0      0  0  1  0  0      0  0  0  0  0      0  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:              0  94  11          0 105  0          0  0  0  0          8  0  1
Growth Adj:           1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:          0  94  11          0 105  0          0  0  0  0          8  0  1
User Adj:             1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:           0  94  11          0 105  0          0  0  0  0          8  0  1
Reduct Vol:           0  0  0          0  0  0          0  0  0  0          0  0  0
Reduced Vol:          0  94  11          0 105  0          0  0  0  0          8  0  1
PCE Adj:              1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:          0  94  11          0 105  0          0  0  0  0          8  0  1
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1800 1800 1800  1800 1800 1800  1800 1800 1800  1800 1800 1800
Adjustment:           1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:                0.00 0.90 0.10  0.00 1.00 0.00  0.00 0.00 0.00  0.89 0.00 0.11
Final Sat.:           0 1611 189    0 1800  0          0  0  0  0  1600  0  200
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.00 0.06 0.06  0.00 0.06 0.00  0.00 0.00 0.00  0.01 0.00 0.01
Crit Moves:           ****                                ****
*****

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Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #3 Ripple St/Coolidge Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.102
Loss Time (sec):      0           Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        16          Level Of Service:                A
*****
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:              Permitted      Permitted      Permitted      Permitted
Rights:               Include        Include        Include        Include
Min. Green:           0 0 0 0        0 0 0 0        0 0 0 0        0 0 0 0
Y+R:                  4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:                0 0 0 1 0      0 1 0 0 0      0 0 1 0 0      0 0 1 0 0
-----
Volume Module:
Base Vol:             0 72 19 29 89 0 0 0 0 19 0 46
Growth Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:          0 72 19 29 89 0 0 0 0 19 0 46
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           0 72 19 29 89 0 0 0 0 19 0 46
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:          0 72 19 29 89 0 0 0 0 19 0 46
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          0 72 19 29 89 0 0 0 0 19 0 46
-----
Saturation Flow Module:
Sat/Lane:             1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:                0.00 0.79 0.21 0.25 0.75 0.00 0.00 1.00 0.00 0.29 0.00 0.71
Final Sat.:           0 1424 376 442 1358 0 0 1800 0 526 0 1274
-----
Capacity Analysis Module:
Vol/Sat:              0.00 0.05 0.05 0.07 0.07 0.00 0.00 0.00 0.00 0.04 0.00 0.04
Crit Moves:          *****
*****

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                        Level Of Service Computation Report
                Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #4 Ripple St/Newell St
*****
Cycle (sec):           100           Critical Vol./Cap.(X):           0.156
Loss Time (sec):       0             Average Delay (sec/veh):           xxxxxx
Optimal Cycle:         17           Level Of Service:                   A
*****
Approach:              North Bound      South Bound      East Bound      West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                 Include            Include            Include            Include
Min. Green:             0   0   0           0   0   0           0   0   0           0   0   0
Y+R:                   4.0 4.0 4.0         4.0 4.0 4.0         4.0 4.0 4.0         4.0 4.0 4.0
Lanes:                  0 0 1! 0 0          0 0 1! 0 0          0 0 1! 0 0          0 0 1! 0 0
-----
Volume Module:
Base Vol:               36   12   2           7   25   85           88   34   41           2   59   9
Growth Adj:            1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
Initial Bse:           36   12   2           7   25   85           88   34   41           2   59   9
User Adj:              1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
PHF Adj:               1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
PHF Volume:            36   12   2           7   25   85           88   34   41           2   59   9
Reduct Vol:            0   0   0           0   0   0           0   0   0           0   0   0
Reduced Vol:           36   12   2           7   25   85           88   34   41           2   59   9
PCE Adj:              1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
FinalVolume:           36   12   2           7   25   85           88   34   41           2   59   9
-----
Saturation Flow Module:
Sat/Lane:              1800 1800 1800         1800 1800 1800         1800 1800 1800         1800 1800 1800
Adjustment:            1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00         1.00 1.00 1.00
Lanes:                 0.72 0.24 0.04         0.06 0.21 0.73         0.54 0.21 0.25         0.03 0.84 0.13
Final Sat.:           1296 432   72           108 385 1308         972 375 453           51 1517 231
-----
Capacity Analysis Module:
Vol/Sat:               0.03 0.03 0.03         0.06 0.07 0.06         0.09 0.09 0.09         0.04 0.04 0.04
Crit Moves:
*****
*****

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Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #1 Ripple St/Rosanna St
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.166
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Table with 4 main columns: North Bound, South Bound, East Bound, West Bound. Sub-columns: L, T, R. Rows: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 12 columns for volume and adjustment factors. Rows: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 12 columns for saturation flow. Rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis. Rows: Vol/Sat, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #2 Ripple St/Marsh St
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.069
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 15 Level Of Service: A
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 12 columns representing different volume categories and their values.

Saturation Flow Module: Table with 12 columns representing saturation flow values.

Capacity Analysis Module: Table with 12 columns representing capacity analysis values.

\*\*\*\*\*

Level Of Service Computation Report  
Circular 212 Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #3 Ripple St/Coolidge Ave  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.097  
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 16 Level Of Service: A  
\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	74	19	28	88	1	1	0	1	12	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	74	19	28	88	1	1	0	1	12	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	74	19	28	88	1	1	0	1	12	0	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	74	19	28	88	1	1	0	1	12	0	45

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.79	0.20	0.24	0.75	0.01	0.50	0.00	0.50	0.21	0.00	0.79
Final Sat.:	19	1417	364	431	1354	15	900	0	900	379	0	1421

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.07	0.07	0.06	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:				****						****		

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                          Level Of Service Computation Report
                          Circular 212 Operations Method (Base Volume Alternative)
*****
Intersection #4 Ripple St/Newell St
*****
Cycle (sec):           100                Critical Vol./Cap.(X):           0.168
Loss Time (sec):       0                  Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         17                 Level Of Service:              A
*****
Approach:              North Bound        South Bound        East Bound        West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                 Include            Include            Include            Include
Min. Green:             0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                   4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:                  0  0  1! 0  0        0  0  1! 0  0        0  0  1! 0  0        0  0  1! 0  0
-----
Volume Module:
Base Vol:               57   22    2         6   26   87    84   38   62    5   32   10
Growth Adj:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:           57   22    2         6   26   87    84   38   62    5   32   10
User Adj:              1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:            57   22    2         6   26   87    84   38   62    5   32   10
Reduct Vol:            0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:           57   22    2         6   26   87    84   38   62    5   32   10
PCE Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:          57   22    2         6   26   87    84   38   62    5   32   10
-----
Saturation Flow Module:
Sat/Lane:              1800 1800 1800    1800 1800 1800    1800 1800 1800    1800 1800 1800
Adjustment:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:                 0.71 0.27 0.02    0.05 0.22 0.73    0.45 0.21 0.34    0.11 0.68 0.21
Final Sat.:           1267 489   44     91  393 1316    822  372  607    191 1226  383
-----
Capacity Analysis Module:
Vol/Sat:                0.04 0.04 0.05    0.07 0.07 0.07    0.10 0.10 0.10    0.03 0.03 0.03
Crit Moves:              ****                      ****
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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #1 Ripple St/Rosanna St

\*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.297  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 20 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	188	2	5	0	9	15	10	9	138	6	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	189	2	5	0	9	15	10	9	139	6	11	1
Added Vol:	0	0	0	0	0	11	2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	189	2	5	0	9	26	12	9	139	6	11	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	189	2	5	0	9	26	12	9	139	6	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	2	5	0	9	26	12	9	139	6	11	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	189	2	5	0	9	26	12	9	139	6	11	1

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.96	0.01	0.03	0.00	0.26	0.74	0.07	0.06	0.87	0.33	0.61	0.06
Final Sat.:	1157	12	31	0	309	891	90	68	1042	400	733	67

Capacity Analysis Module:

Vol/Sat:	0.16	0.16	0.16	0.00	0.03	0.03	0.13	0.13	0.13	0.02	0.02	0.02
Crit Moves:	****			****								

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #2 Ripple St/Marsh St  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.132  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	131	8	0	109	0	0	0	0	17	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	132	8	0	110	0	0	0	0	17	0	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	132	8	0	110	0	0	0	0	17	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	132	8	0	110	0	0	0	0	17	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	132	8	0	110	0	0	0	0	17	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	132	8	0	110	0	0	0	0	17	0	1

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.94	0.06	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	1131	69	0	1200	0	0	0	0	1133	0	67

Capacity Analysis Module:

Vol/Sat:	0.00	0.12	0.12	0.00	0.09	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:	****									****		

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
 Intersection #3 Ripple St/Coolidge Ave  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.165  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	0	97	9	34	113	0	0	0	0	15	0	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	98	9	34	114	0	0	0	0	15	0	35
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	98	9	34	114	0	0	0	0	15	0	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	98	9	34	114	0	0	0	0	15	0	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	98	9	34	114	0	0	0	0	15	0	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	98	9	34	114	0	0	0	0	15	0	35

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.92	0.08	0.23	0.77	0.00	0.00	1.00	0.00	0.30	0.00	0.70
Final Sat.:	0	1098	102	278	922	0	0	1200	0	360	0	840

Capacity Analysis Module:

Vol/Sat:	0.00	0.09	0.09	0.12	0.12	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:				****						****		

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #4 Ripple St/Newell St

\*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.257  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0

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Volume Module:

Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	49	11	0	8	24	129	82	27	38	0	64	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	11	0	8	24	129	82	27	38	0	64	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	11	0	8	24	129	82	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	129	82	27	38	0	64	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	11	0	8	24	129	82	27	38	0	64	8

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Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	980	220	0	60	180	960	666	222	312	0	1067	133

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Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.00	0.13	0.13	0.13	0.12	0.12	0.12	0.00	0.06	0.06
Crit Moves:				****			****					

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #1 Ripple St/Rosanna St

\*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.279  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 20 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	136	5	0	1	2	13	12	17	152	4	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	137	5	0	1	2	13	12	17	153	4	11	1
Added Vol:	0	0	0	0	0	5	10	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	5	0	1	2	18	22	17	153	4	11	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	5	0	1	2	18	22	17	153	4	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	5	0	1	2	18	22	17	153	4	11	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	5	0	1	2	18	22	17	153	4	11	1

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.96	0.04	0.00	0.05	0.09	0.86	0.11	0.09	0.80	0.25	0.69	0.06
Final Sat.:	1157	43	0	57	114	1028	138	107	955	300	825	75

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.00	0.02	0.02	0.02	0.16	0.16	0.16	0.01	0.01	0.01
Crit Moves:	****			****								

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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Intersection #2 Ripple St/Marsh St  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.096  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 16 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	0	94	11	0	105	0	0	0	0	8	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	95	11	0	106	0	0	0	0	8	0	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	95	11	0	106	0	0	0	0	8	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	95	11	0	106	0	0	0	0	8	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	95	11	0	106	0	0	0	0	8	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	95	11	0	106	0	0	0	0	8	0	1

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.90	0.10	0.00	1.00	0.00	0.00	0.00	0.00	0.89	0.00	0.11
Final Sat.:	0	1074	126	0	1200	0	0	0	0	1067	0	133

Capacity Analysis Module:

Vol/Sat:	0.00	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)

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 Intersection #3 Ripple St/Coolidge Ave  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.154  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	0	72	19	29	89	0	0	0	0	19	0	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	73	19	29	90	0	0	0	0	19	0	46
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	73	19	29	90	0	0	0	0	19	0	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	73	19	29	90	0	0	0	0	19	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	73	19	29	90	0	0	0	0	19	0	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	73	19	29	90	0	0	0	0	19	0	46

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.79	0.21	0.25	0.75	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	949	251	295	905	0	0	1200	0	351	0	849

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:				****						****		

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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Intersection #4 Ripple St/Newell St  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.235  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	36	12	2	7	25	85	88	34	41	2	59	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	2	7	25	86	89	34	41	2	59	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	12	2	7	25	86	89	34	41	2	59	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	12	2	7	25	86	89	34	41	2	59	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	2	7	25	86	89	34	41	2	59	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	12	2	7	25	86	89	34	41	2	59	9

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.72	0.24	0.04	0.06	0.21	0.73	0.54	0.21	0.25	0.03	0.84	0.13
Final Sat.:	864	288	48	72	256	872	648	250	302	34	1011	154

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.10	0.10	0.10	0.14	0.14	0.14	0.06	0.06	0.06
Crit Moves:				****				****				

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
 Intersection #1 Ripple St/Rosanna St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.250  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	1	0	0	1	0	1	0

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Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	134	9	7	0	3	12	11	9	128	7	14	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	135	9	7	0	3	12	11	9	129	7	14	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	9	7	0	3	12	11	9	129	7	14	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	9	7	0	3	12	11	9	129	7	14	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	9	7	0	3	12	11	9	129	7	14	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	135	9	7	0	3	12	11	9	129	7	14	0

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Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.89	0.06	0.05	0.00	0.20	0.80	0.07	0.06	0.87	0.33	0.67	0.00
Final Sat.:	1072	72	56	0	240	960	89	73	1038	400	800	0

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Capacity Analysis Module:

Vol/Sat:	0.13	0.13	0.13	0.00	0.01	0.01	0.12	0.12	0.12	0.02	0.02	0.00
Crit Moves:	****			****								

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Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

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Intersection #2 Ripple St/Marsh St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.104
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 16 Level Of Service: A

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different volume categories and 13 rows of data.

Saturation Flow Module table with 13 columns and 4 rows of data.

Capacity Analysis Module table with 13 columns and 3 rows of data.

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #3 Ripple St/Coolidge Ave  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.146  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

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Volume Module:

Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	1	75	19	28	89	1	1	0	1	12	0	45
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	75	19	28	89	1	1	0	1	12	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	75	19	28	89	1	1	0	1	12	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	75	19	28	89	1	1	0	1	12	0	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	75	19	28	89	1	1	0	1	12	0	45

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Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.79	0.20	0.24	0.75	0.01	0.50	0.00	0.50	0.21	0.00	0.79
Final Sat.:	13	945	243	287	903	10	600	0	600	253	0	947

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Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.08	0.10	0.10	0.10	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:				****						****		

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
 Intersection #4 Ripple St/Newell St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.254  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	57	22	2	6	26	87	84	38	62	5	32	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	57	22	2	6	26	88	85	38	62	5	32	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	22	2	6	26	88	85	38	62	5	32	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	22	2	6	26	88	85	38	62	5	32	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	22	2	6	26	88	85	38	62	5	32	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	22	2	6	26	88	85	38	62	5	32	10

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.27	0.02	0.05	0.22	0.73	0.46	0.20	0.34	0.11	0.68	0.21
Final Sat.:	844	326	30	61	262	877	548	248	404	128	817	255

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.07	0.10	0.10	0.10	0.15	0.15	0.15	0.04	0.04	0.04
Crit Moves:				****			****					

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Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)
*****
Intersection #1 Ripple St/Rosanna St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.300
Loss Time (sec):      0           Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        21          Level Of Service:              A
*****
Approach:             North Bound   South Bound   East Bound   West Bound
Movement:             L - T - R     L - T - R     L - T - R     L - T - R
-----
Control:              Permitted     Permitted     Permitted     Permitted
Rights:               Include       Include       Include       Include
Min. Green:           0 0 0         0 0 0         0 0 0         0 0 0
Y+R:                  4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0
Lanes:                0 0 1! 0 0     0 0 0 1 0     0 0 1! 0 0     0 0 1! 0 0
-----
Volume Module:
Base Vol:             188 2 5         0 9 15         10 9 138        6 11 1
Growth Adj:           1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
Initial Bse:          189 2 5         0 9 15         10 9 139        6 11 1
Added Vol:            0 0 3         0 0 11         2 0 0           0 0 0
PasserByVol:         0 0 0         0 0 0         0 0 0           0 0 0
Initial Fut:          189 2 8         0 9 26         12 9 139        6 11 1
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           189 2 8         0 9 26         12 9 139        6 11 1
Reduct Vol:           0 0 0         0 0 0         0 0 0           0 0 0
Reduced Vol:          189 2 8         0 9 26         12 9 139        6 11 1
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          189 2 8         0 9 26         12 9 139        6 11 1
-----
Saturation Flow Module:
Sat/Lane:             1200 1200 1200 1200 1200 1200 1200 1200 1200 1200 1200 1200
Adjustment:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:                0.95 0.01 0.04 0.00 0.26 0.74 0.07 0.06 0.87 0.33 0.61 0.06
Final Sat.:           1140 12 48      0 309 891      90 68 1042      400 733 67
-----
Capacity Analysis Module:
Vol/Sat:              0.17 0.17 0.17 0.00 0.03 0.03 0.13 0.13 0.13 0.02 0.02 0.02
Crit Moves:          ****
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Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)
*****
Intersection #2 Ripple St/Marsh St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.133
Loss Time (sec):      0           Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        17          Level Of Service:              A
*****
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Permitted      Permitted      Permitted      Permitted
Rights:               Include        Include        Include        Include
Min. Green:           0  0  0        0  0  0        0  0  0        0  0  0
Y+R:                  4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:                0  0  0  1  0    0  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             0 131 8        0 109 0        0 0 0 0        17 0 1
Growth Adj:          1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
Initial Bse:          0 132 8        0 110 0        0 0 0 0        17 0 1
Added Vol:            0 2 0          0 0 0 0        0 0 0 0        0 0 0
PasserByVol:         0 0 0          0 0 0 0        0 0 0 0        0 0 0
Initial Fut:         0 134 8        0 110 0        0 0 0 0        17 0 1
User Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:          0 134 8        0 110 0        0 0 0 0        17 0 1
Reduct Vol:          0 0 0          0 0 0 0        0 0 0 0        0 0 0
Reduced Vol:         0 134 8        0 110 0        0 0 0 0        17 0 1
PCE Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:         0 134 8        0 110 0        0 0 0 0        17 0 1
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:            1200 1200 1200 1200 1200 1200 1200 1200 1200 1200 1200 1200
Adjustment:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:               0.00 0.94 0.06 0.00 1.00 0.00 0.00 0.00 0.00 0.94 0.00 0.06
Final Sat.:          0 1132 68    0 1200 0        0 0 0 0        1133 0 67
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:             0.00 0.12 0.12 0.00 0.09 0.00 0.00 0.00 0.00 0.02 0.00 0.02
Crit Moves:          ****                      ****
*****

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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\*\*\*\*\*  
Intersection #3 Ripple St/Coolidge Ave  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.166  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	1	0	0	1

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Volume Module:

Base Vol:	0	97	9	34	113	0	0	0	0	15	0	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	98	9	34	114	0	0	0	0	15	0	35
Added Vol:	0	1	0	0	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	99	9	34	114	0	0	0	0	15	0	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	99	9	34	114	0	0	0	0	15	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	99	9	34	114	0	0	0	0	15	0	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	99	9	34	114	0	0	0	0	15	0	36

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Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.92	0.08	0.23	0.77	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	1099	101	278	922	0	0	1200	0	353	0	847

-----

Capacity Analysis Module:

Vol/Sat:	0.00	0.09	0.09	0.12	0.12	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****						****					

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Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #4 Ripple St/Newell St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.257  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	49	11	0	8	24	129	82	27	38	0	64	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	11	0	8	24	129	82	27	38	0	64	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	11	0	8	24	129	82	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	129	82	27	38	0	64	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	11	0	8	24	129	82	27	38	0	64	8

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	980	220	0	60	180	960	666	222	312	0	1067	133

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.00	0.13	0.13	0.13	0.12	0.12	0.12	0.00	0.06	0.06
Crit Moves:				****			****					

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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Intersection #1 Ripple St/Rosanna St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.279  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 20 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	1	0	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	136	5	0	1	2	13	12	17	152	4	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	137	5	0	1	2	13	12	17	153	4	11	1
Added Vol:	0	0	0	0	0	5	10	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	5	0	1	2	18	22	17	153	7	11	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	5	0	1	2	18	22	17	153	7	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	5	0	1	2	18	22	17	153	7	11	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	5	0	1	2	18	22	17	153	7	11	1

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.96	0.04	0.00	0.05	0.09	0.86	0.11	0.09	0.80	0.37	0.58	0.05
Final Sat.:	1157	43	0	57	114	1028	138	107	955	441	696	63

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.00	0.02	0.02	0.02	0.16	0.16	0.16	0.02	0.02	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)
*****
Intersection #2 Ripple St/Marsh St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.097
Loss Time (sec):      0          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        16          Level Of Service:          A
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0  0  0      0  0  0      0  0  0      0  0  0
Y+R:      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:      0  0  0  1  0      0  0  1  0  0      0  0  0  0  0      0  0  1!  0  0
-----
Volume Module:
Base Vol:      0  94  11      0  105  0      0  0  0      8  0  1
Growth Adj:  1.01  1.01  1.01  1.01  1.01  1.01  1.01  1.01  1.01  1.01  1.01  1.01
Initial Bse:  0  95  11      0  106  0      0  0  0      8  0  1
Added Vol:    0  0  0      0  2  0      0  0  0      0  0  0
PasserByVol:  0  0  0      0  0  0      0  0  0      0  0  0
Initial Fut:  0  95  11      0  108  0      0  0  0      8  0  1
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:  0  95  11      0  108  0      0  0  0      8  0  1
Reduct Vol:  0  0  0      0  0  0      0  0  0      0  0  0
Reduced Vol:  0  95  11      0  108  0      0  0  0      8  0  1
PCE Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:  0  95  11      0  108  0      0  0  0      8  0  1
-----
Saturation Flow Module:
Sat/Lane:    1200  1200  1200  1200  1200  1200  1200  1200  1200  1200  1200  1200
Adjustment:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Lanes:      0.00  0.90  0.10  0.00  1.00  0.00  0.00  0.00  0.00  0.89  0.00  0.11
Final Sat.:  0  1074  126      0  1200  0      0  0  0      1067  0  133
-----
Capacity Analysis Module:
Vol/Sat:    0.00  0.09  0.09  0.00  0.09  0.00  0.00  0.00  0.00  0.01  0.00  0.01
Crit Moves:      ****          ****
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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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Intersection #3 Ripple St/Coolidge Ave  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.155  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 17 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	0	72	19	29	89	0	0	0	0	19	0	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	73	19	29	90	0	0	0	0	19	0	46
Added Vol:	0	0	0	1	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	73	19	30	91	0	0	0	0	19	0	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	73	19	30	91	0	0	0	0	19	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	73	19	30	91	0	0	0	0	19	0	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	73	19	30	91	0	0	0	0	19	0	46

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.79	0.21	0.25	0.75	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	949	251	300	900	0	0	1200	0	351	0	849

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:	****						****					

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 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
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Intersection #4 Ripple St/Newell St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.235  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 19 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	36	12	2	7	25	85	88	34	41	2	59	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	2	7	25	86	89	34	41	2	59	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	12	2	7	25	86	89	34	41	2	59	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	12	2	7	25	86	89	34	41	2	59	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	2	7	25	86	89	34	41	2	59	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	12	2	7	25	86	89	34	41	2	59	9

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.72	0.24	0.04	0.06	0.21	0.73	0.54	0.21	0.25	0.03	0.84	0.13
Final Sat.:	864	288	48	72	256	872	648	250	302	34	1011	154

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.10	0.10	0.10	0.14	0.14	0.14	0.06	0.06	0.06
Crit Moves:				****				****				

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Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1 Ripple St/Rosanna St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.350  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 22 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	134	9	7	0	3	12	11	9	128	7	14	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	135	9	7	0	3	12	11	9	129	7	14	0
Added Vol:	0	6	78	0	1	0	0	36	0	11	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	15	85	0	4	12	11	45	129	18	19	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	15	85	0	4	12	11	45	129	18	19	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	15	85	0	4	12	11	45	129	18	19	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	135	15	85	0	4	12	11	45	129	18	19	0

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.58	0.06	0.36	0.00	0.25	0.75	0.06	0.24	0.70	0.49	0.51	0.00
Final Sat.:	689	77	434	0	300	900	72	292	836	583	617	0

Capacity Analysis Module:

Vol/Sat:	0.20	0.20	0.20	0.00	0.01	0.01	0.15	0.15	0.15	0.03	0.03	0.00
Crit Moves:	****						****					

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Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)
*****
Intersection #2 Ripple St/Marsh St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.167
Loss Time (sec):      0          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        17          Level Of Service:              A
*****
Approach:            North Bound      South Bound      East Bound      West Bound
Movement:           L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:            Permitted      Permitted      Permitted      Permitted
Rights:             Include        Include        Include        Include
Min. Green:         0  0  0        0  0  0        0  0  0        0  0  0
Y+R:                4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:              0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
-----
Volume Module:
Base Vol:           0  96  13      1  93  0      0  0  0      13  0  2
Growth Adj:         1.01 1.01 1.01    1.01 1.01 1.01    1.01 1.01 1.01    1.01 1.01 1.01
Initial Bse:        0  97  13      1  94  0      0  0  0      13  0  2
Added Vol:          0  76  0      0  11  0      0  0  0      0  0  0
PasserByVol:        0  0  0      0  0  0      0  0  0      0  0  0
Initial Fut:        0  173  13     1  105  0      0  0  0      13  0  2
User Adj:           1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:         0  173  13      1  105  0      0  0  0      13  0  2
Reduct Vol:         0  0  0      0  0  0      0  0  0      0  0  0
Reduced Vol:        0  173  13      1  105  0      0  0  0      13  0  2
PCE Adj:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:        0  173  13      1  105  0      0  0  0      13  0  2
-----
Saturation Flow Module:
Sat/Lane:           1200 1200 1200    1200 1200 1200    1200 1200 1200    1200 1200 1200
Adjustment:         1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:              0.00 0.93 0.07    0.01 0.99 0.00    0.00 0.00 0.00    0.87 0.00 0.13
Final Sat.:         0  1115  85     11  1189  0      0  0  0      1040  0  160
-----
Capacity Analysis Module:
Vol/Sat:            0.00 0.15 0.15    0.09 0.09 0.00    0.00 0.00 0.00    0.01 0.00 0.01
Crit Moves:         ****                      ****
*****

```

-----  
 Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)  
 \*\*\*\*\*

Intersection #3 Ripple St/Coolidge Ave  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.180  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 18 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	1	75	19	28	89	1	1	0	1	12	0	45
Added Vol:	0	46	0	3	6	0	0	0	0	0	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	121	19	31	95	1	1	0	1	12	0	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	121	19	31	95	1	1	0	1	12	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	121	19	31	95	1	1	0	1	12	0	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	121	19	31	95	1	1	0	1	12	0	63

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.86	0.13	0.24	0.75	0.01	0.50	0.00	0.50	0.16	0.00	0.84
Final Sat.:	9	1028	163	295	895	10	600	0	600	192	0	1008

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.12	0.11	0.11	0.11	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Level Of Service Computation Report  
 Circular 212 Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #4 Ripple St/Newell St  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.278  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 20 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	57	22	2	6	26	87	84	38	62	5	32	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	57	22	2	6	26	88	85	38	62	5	32	10
Added Vol:	0	12	0	0	2	3	24	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	34	2	6	28	91	109	38	62	5	32	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	34	2	6	28	91	109	38	62	5	32	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	34	2	6	28	91	109	38	62	5	32	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	34	2	6	28	91	109	38	62	5	32	12

Saturation Flow Module:

Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	0.37	0.02	0.05	0.22	0.73	0.52	0.18	0.30	0.10	0.66	0.24
Final Sat.:	736	438	26	58	271	871	623	219	358	122	784	294

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.08	0.10	0.10	0.10	0.17	0.17	0.17	0.04	0.04	0.04
Crit Moves:				****				****				

\*\*\*\*\*

## APPENDIX C

### Approved Project Data

Los Angeles City Planning Department  
Case Tracking Information

Search:   [Search Help](#)

[Summary](#) | [Details](#)

[Scanned Documents](#)

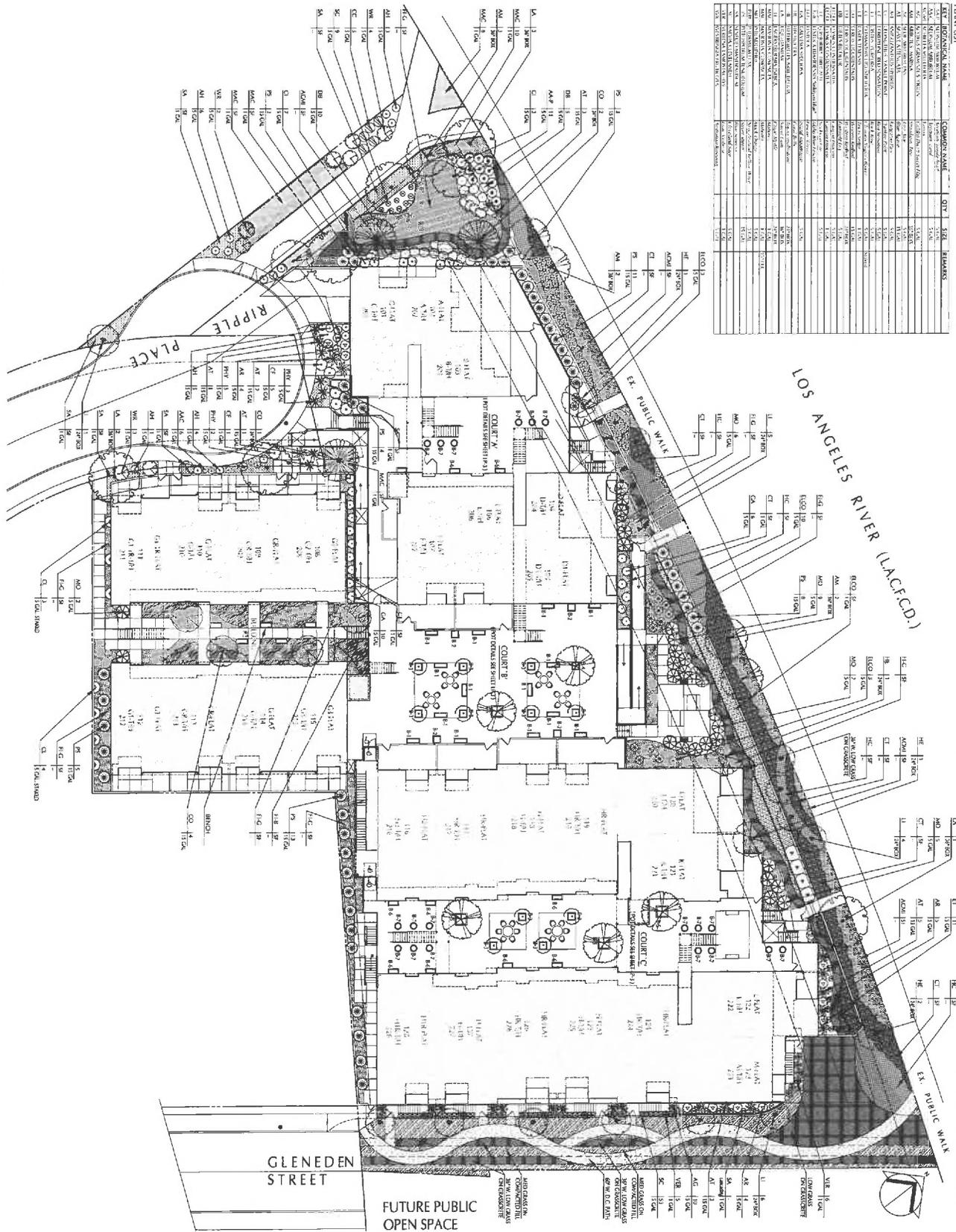
### Case Information Summary Sheet

<b>Case Number:</b>	<a href="#">CPC-2005-6796-ZC-GPA-ZV-ZAA</a>
<b>Address:</b>	2943 N GLENEDEN ST
<b>Primary Zone:</b>	(T)(Q)CM-1VL
<b>Planning Area:</b>	Silver Lake - Echo Park - Elysian Valley
<b>Council District(s):</b>	13
<b>Certified Neighborhood Council (CNC):</b>	Elysian Valley Riverside
<b>Area Planning Commission (APC):</b>	EAST LOS ANGELES
<b>Historic Preservation Overlay Zone:</b>	Data Not Available
<b>Historic Cultural Monument:</b>	Data Not Available
<b>Project Description:</b>	CONSTRUCTION OF 56 RESIDENTIAL UNITS.
<b>Total Project Area:</b>	71,907
<b>Required Action:</b>	Not Known
<b>Client Contact Name:</b>	Darryl L. Fisher
<b>Client Contact Phone:</b>	(562) 865-3025

[LA City Home Page](#) | 
 [City Planning Home Page](#) | 
 [Case Tracking Information Home](#)

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PLANT LIST	SYMBOL	COMMON NAME	QTY	SIZE	REMARKS
1. BIRD FEEDER	1.1	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
2. BIRD FEEDER	1.2	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
3. BIRD FEEDER	1.3	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
4. BIRD FEEDER	1.4	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
5. BIRD FEEDER	1.5	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
6. BIRD FEEDER	1.6	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
7. BIRD FEEDER	1.7	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
8. BIRD FEEDER	1.8	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
9. BIRD FEEDER	1.9	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
10. BIRD FEEDER	1.10	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
11. BIRD FEEDER	1.11	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
12. BIRD FEEDER	1.12	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
13. BIRD FEEDER	1.13	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
14. BIRD FEEDER	1.14	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
15. BIRD FEEDER	1.15	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
16. BIRD FEEDER	1.16	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
17. BIRD FEEDER	1.17	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
18. BIRD FEEDER	1.18	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
19. BIRD FEEDER	1.19	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
20. BIRD FEEDER	1.20	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
21. BIRD FEEDER	1.21	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
22. BIRD FEEDER	1.22	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
23. BIRD FEEDER	1.23	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
24. BIRD FEEDER	1.24	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
25. BIRD FEEDER	1.25	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
26. BIRD FEEDER	1.26	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
27. BIRD FEEDER	1.27	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
28. BIRD FEEDER	1.28	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
29. BIRD FEEDER	1.29	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
30. BIRD FEEDER	1.30	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
31. BIRD FEEDER	1.31	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
32. BIRD FEEDER	1.32	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
33. BIRD FEEDER	1.33	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
34. BIRD FEEDER	1.34	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
35. BIRD FEEDER	1.35	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
36. BIRD FEEDER	1.36	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
37. BIRD FEEDER	1.37	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
38. BIRD FEEDER	1.38	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
39. BIRD FEEDER	1.39	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
40. BIRD FEEDER	1.40	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
41. BIRD FEEDER	1.41	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
42. BIRD FEEDER	1.42	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
43. BIRD FEEDER	1.43	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
44. BIRD FEEDER	1.44	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
45. BIRD FEEDER	1.45	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
46. BIRD FEEDER	1.46	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
47. BIRD FEEDER	1.47	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
48. BIRD FEEDER	1.48	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
49. BIRD FEEDER	1.49	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN
50. BIRD FEEDER	1.50	WOODEN BIRD FEEDER	1	12" DIA.	SEE PLAN



**54 UNIT CONDOMINIUM COMPLEX**  
**ANASTASI**  
 SUBSEQUENT COMMENT: SEE 0900 RIPPLE PLACE, LOS ANGELES, CA

**PROJECT FILE**  
 0900 RIPPLE PLACE, LOS ANGELES, CA

**DATE:** 6-14-2011

**LANDSCAPE PLAN**

**REVISIONS:**

NO.	DATE	DESCRIPTION
1	6-14-2011	ISSUED FOR PERMIT
2	6-27-2011	ISSUED FOR PERMIT
3	6-27-2011	ISSUED FOR PERMIT
4	6-27-2011	ISSUED FOR PERMIT
5	6-27-2011	ISSUED FOR PERMIT
6	6-27-2011	ISSUED FOR PERMIT
7	6-27-2011	ISSUED FOR PERMIT
8	6-27-2011	ISSUED FOR PERMIT
9	6-27-2011	ISSUED FOR PERMIT
10	6-27-2011	ISSUED FOR PERMIT
11	6-27-2011	ISSUED FOR PERMIT
12	6-27-2011	ISSUED FOR PERMIT
13	6-27-2011	ISSUED FOR PERMIT
14	6-27-2011	ISSUED FOR PERMIT
15	6-27-2011	ISSUED FOR PERMIT
16	6-27-2011	ISSUED FOR PERMIT
17	6-27-2011	ISSUED FOR PERMIT
18	6-27-2011	ISSUED FOR PERMIT
19	6-27-2011	ISSUED FOR PERMIT
20	6-27-2011	ISSUED FOR PERMIT
21	6-27-2011	ISSUED FOR PERMIT
22	6-27-2011	ISSUED FOR PERMIT
23	6-27-2011	ISSUED FOR PERMIT
24	6-27-2011	ISSUED FOR PERMIT
25	6-27-2011	ISSUED FOR PERMIT
26	6-27-2011	ISSUED FOR PERMIT
27	6-27-2011	ISSUED FOR PERMIT
28	6-27-2011	ISSUED FOR PERMIT
29	6-27-2011	ISSUED FOR PERMIT
30	6-27-2011	ISSUED FOR PERMIT
31	6-27-2011	ISSUED FOR PERMIT
32	6-27-2011	ISSUED FOR PERMIT
33	6-27-2011	ISSUED FOR PERMIT
34	6-27-2011	ISSUED FOR PERMIT
35	6-27-2011	ISSUED FOR PERMIT
36	6-27-2011	ISSUED FOR PERMIT
37	6-27-2011	ISSUED FOR PERMIT
38	6-27-2011	ISSUED FOR PERMIT
39	6-27-2011	ISSUED FOR PERMIT
40	6-27-2011	ISSUED FOR PERMIT
41	6-27-2011	ISSUED FOR PERMIT
42	6-27-2011	ISSUED FOR PERMIT
43	6-27-2011	ISSUED FOR PERMIT
44	6-27-2011	ISSUED FOR PERMIT
45	6-27-2011	ISSUED FOR PERMIT
46	6-27-2011	ISSUED FOR PERMIT
47	6-27-2011	ISSUED FOR PERMIT
48	6-27-2011	ISSUED FOR PERMIT
49	6-27-2011	ISSUED FOR PERMIT
50	6-27-2011	ISSUED FOR PERMIT

**SCALE:** 1/8" = 1'-0"

**DATE:** 3-16-2011

**DESIGNED BY:** DR

**PROJECT NO.:** LP-1

**SHEET NO.:** LP-1

**RICHEL BRAY, INC.**  
 Landscapes Architecture  
 2403 Van Avenue  
 Palms Verde Farms, CA 90274  
 (916) 275-2848  
 Fax: (916) 275-2804  
 E-mail: Richel@brayinc.com

**REGISTERED LANDSCAPE ARCHITECT**  
 STATE OF CALIFORNIA  
 No. 10000

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
<b>Total</b>						<b>11.55</b>	<b>0.00</b>	<b>0.00</b>	<b>11.62</b>

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

#### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.05	0.00	0.00	0.12
Unmitigated					0.05	0.00	0.00	0.12
<b>Total</b>	<b>NA</b>							

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.26					0.05	0.00	0.00	0.12
<b>Total</b>						<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.26					0.05	0.00	0.00	0.12
<b>Total</b>						<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>

## 9.0 Vegetation

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**APPENDIX B**  
**NOISE ANALYSIS**



**NOISE IMPACT ANALYSIS**  
**MARSH PARK**  
**CITY OF LOS ANGELES, CALIFORNIA**

Prepared for:

Prepared for:  
Mountains Recreation & Conservation Authority (MCRA)  
L. A. River Center & Gardens  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065

---

Hans D. Giroux  
Senior Analyst  
Giroux & Associates

Date:

May 13, 2012

Project No.: P11-048 N

## NOISE SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is defined as unwanted sound. Acoustic energy is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The unit of sound pressure ratioed to the lowest level detectable by a young person with good auditory acuity is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, decibels are on a logarithmic scale in order to keep sound pressure level values at a convenient and manageable number. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called "A-weighting," written as "dB(A)." Any noise levels expressed in the following discussion as "dB" should be understood to be dB(A).

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The 24-hour noise descriptor with a specified evening and nocturnal penalty is called the Community Noise Equivalent Level (CNEL). CNEL's are a weighted average of hourly Leq's.

CNELs are calculated by averaging observed noise levels from 7 a.m. to 7 p.m., noise levels from 7-10 p.m. with the addition of plus 5 dB, and levels from 10 p.m. to 7 a.m. plus 10 dB to account for heightened nocturnal noise sensitivity. The CNEL scale is specified by the City of Los Angeles for community noise analysis.

A noise level of 65 dB CNEL is the threshold where ambient noise begins to intrude into the ability to carry on a conversation. An exterior noise exposure of 65 dB CNEL is therefore the most common noise/land use compatibility guideline for new residential dwellings in California. Because commercial or industrial uses are not occupied on a 24-hour basis, the exterior noise exposure standard for less sensitive land uses is somewhat less stringent.

## NOISE COMPATIBILITY STANDARDS

Table 1 shows the noise/land use compatibility guideline for City of Los Angeles land uses as contained in the Noise Element of the City of Los Angeles General Plan. Exposures up to 65 dB CNEL for playground and park uses are considered normally acceptable. Levels of up to 75 dB CNEL are considered conditionally acceptable if all measures to reduce such exposure have been taken. Noise levels above 75 dB CNEL are considered normally unacceptable except in unusual circumstances.

## NOISE ORDINANCE

The proposed project will be owned and operated by the Mountains Recreation and Conservation Authority (MRCA). Section 3.15 of the MRCA's *Ordinance Establishing Park Rules and Regulations and Prescribing The Punishment For Violation Thereof* addresses disruptive conduct, including noise. It states: "No person shall willfully disturb another person by loud and unreasonable noise, or any other activity which maliciously and willfully disturbs the peace of another person. Violation of this section is punishable pursuant to § 5.0(a) and §6.2.1(b)(2)." Section 5.0(a) of the Ordinance provides that: "(a) Unless otherwise specified, any violation of any provision of this Ordinance shall be a misdemeanor punishable by a maximum fine of one thousand dollars (\$1,000), or imprisonment in the county jail for six months, or both such fine and imprisonment, pursuant to Public Resources Code § 5786.17." Section 6.2.1(b)(2) of the MRCA's ordinance provides additional details on misdemeanor offenses under the Ordinance. MRCA park rangers are empowered to issue citations for violations of the Ordinance.

The City's noise standards for non-transportation sources are articulated in the Noise Ordinance. The Ordinance regulates noise from one land use crossing the property line of an adjacent property line. Chapter IX of the Los Angeles Municipal Code restricts the level of noise that one type of land use or activity may broadcast across an adjacent land use. Noise ordinance standards are stated with respect to ambient levels found without the contribution of an identified noise source. If ambient levels are low, Section 111.03 of the Los Angeles Municipal Code established presumed ambient noise levels as a function of zoning and times of day. Table 2 shows the presumed ambient noise levels to be used as an evaluation baseline.

During the daytime, some deviation from these thresholds is allowed for short-term (less than 15 minute) noise generation. The nocturnal noise standard has no provisions for any deviation for purposes of sleep protection. The noise ordinance numerical standards apply to "stationary" sources of noise generation (mechanical equipment such as air conditioning, refrigeration, heating, pumping, etc.). A number of special noise generation activities have specific prohibitions as to time, manner or place. If such activities are not specifically prohibited by ordinance, the noise constraint for general stationary sources is that they may not increase the ambient level by more than 5 dB above ambient (measured or presumed minimum) levels shown in Table 2.

Recreational activities or public assembly in a park may generate nuisance noise associated with park user exuberant enjoyment. Two sections of the municipal code address this issue. Sectionj 41.57 of the municipal code prohibits the creation of "loud or raucous noise" in or upon any

public park or other public place. Loud and raucous noise is particularly aimed at amplified noise that unreasonably annoys surrounding persons. The term unreasonably is to be evaluated in terms of “hour, place, nature or circumstance of the emission or transmission of any such loud or raucous noise.”

Section 112.01 of the code provides some numerical guidance on noise levels that could be considered excessive from amplified voice or music. Section 112.01(b) considers audibility of radios, p.a. systems, etc. perceptible beyond 150 feet from the source within any adjacent residential occupancy to be a violation of the noise ordinance unless the source is operating under a Special Permit. Section 112.01(c) similarly considers a +5 dB increase above ambient noise levels at any off-site residential property line to also be a potential violation of the ordinance.

**Table 1**

**City of Los Angeles Land Use Compatibility**

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

**Table 2**

**City of Los Angeles Noise Ordinance**

Daytime levels are to be used from 7:00 a.m. to 10:00 p.m. and nighttime levels from 10:00 p.m. to 7:00 a.m.)

ZONE	PRESUMED AMBIENT NOISE LEVEL (dB(A))	
	DAY	NIGHT
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

At the boundary line between two zones, the presumed ambient noise level of the quieter zone shall be used.

If the noise occurs more than 5 but less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB.

If the noise occurs five minutes or less in any period of 60 consecutive minutes, between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB additional.

## BASELINE NOISE LEVELS

Short term on-site noise measurements were made in order to document existing baseline levels in the project area. These help to serve as a basis for projecting future noise exposure from the project upon the surrounding community. Noise monitoring was conducted on Tuesday, December 20, 2011, from 1:30 p.m. – 2:30 p.m., at three area locations. Measurement locations are shown in Figure 1 and summarized below.

Measured Noise Levels (dBA)

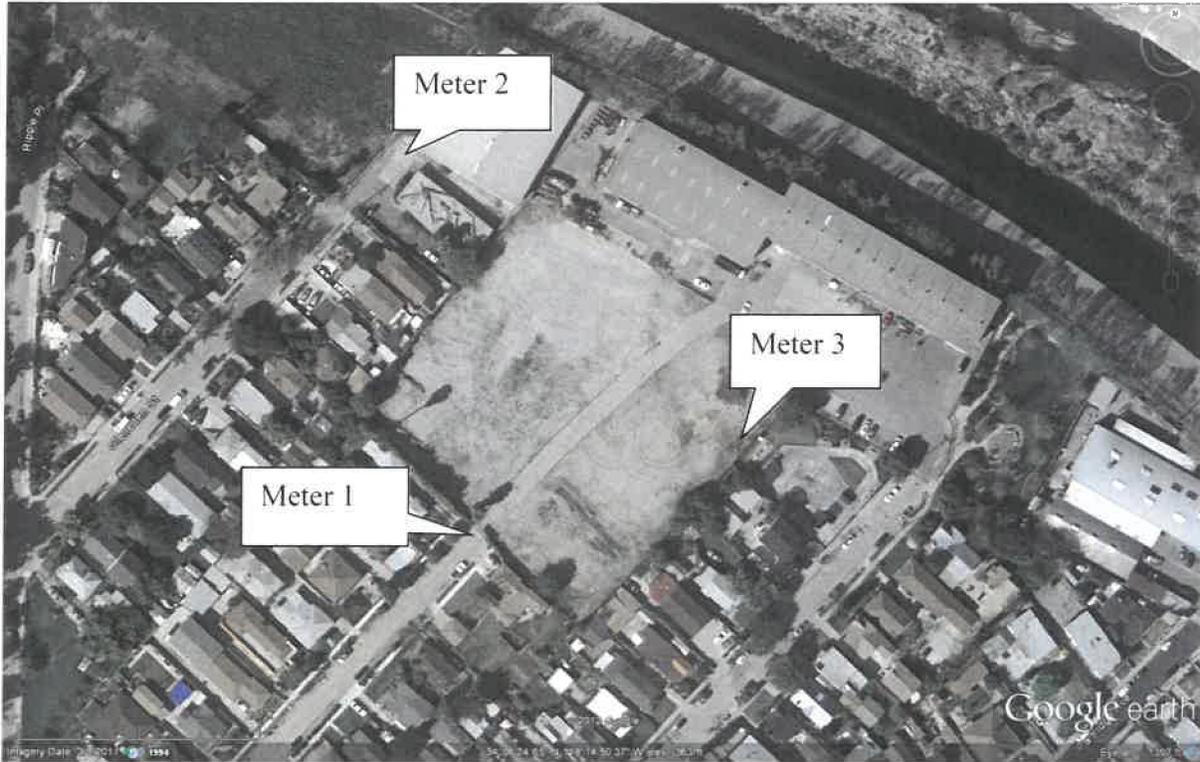
Site No.	Leq	Lmax	Lmin	L10	L33	L50	L90
1	52.0	63.0	48.0	53.0	51.5	51.0	49.5
2	57.1	63.5	53.5	58.0	57.0	56.0	55.5
3	65.1	82.0	51.0	68.0	64.0	62.0	56.0

Meters 1 and 2 are considered representative of homes adjacent to the park away from the skate park. Meter 3 is representative of homes between the skate park and the proposed Marsh Park. The skate park was being used by six skaters and the ramps are made of metal which clangs audibly when is use. Observed noise levels near the skate park were therefore much higher than other areas surrounding the project area.

Monitoring experience shows that 24-hour weighted CNEL's can be reasonably well estimated from mid-afternoon noise readings. CNEL's are approximately equal to mid-afternoon Leq plus 2 dB (Caltrans Technical Noise Supplement, 2009). In locations not immediately adjacent to the skate park, monitoring shows Leq's in the 52-57 dB range. This would equate to possible CNELs in the 54-59 dB level. Such CNELs are estimated to be within the Los Angeles park use noise compatibility guidelines. There are no ambient noise constraints to project development as proposed.

Although Leq levels are higher near the skate park, a block wall will separate Marsh Park from nearby residences. Also, usable areas of Marsh Park are set back from the skate park and attenuation from distance spreading losses will reduce noise levels.

**Figure 1 Noise Meter Locations**



Meter 1: Northern terminus - Rosanna St, future park driveway entrance.

Meter 2: Northern terminus - Glenden St, west side of proposed park.

Meter 3: West side of existing Skate Park-east side of proposed park.

## **NOISE SIGNIFICANCE CRITERIA**

Noise impacts are considered significant if they result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

“Substantial” for noise analyses is generally a +3 dB increase because humans are not able to readily discern noise level differences of less than 3 dB under ambient conditions. The +3 dB threshold is typically applied to traffic (roadway, airport, rail, etc.) sources because such sources are exempt from local ordinance control. However, a +3 dB increase requires a doubling of traffic volumes because of the logarithmic nature of the decibel scale. Few projects individually cause a doubling of traffic volumes near an already noisy source.

Possible violations of noise ordinance standards would also be considered a potentially significant impact under CEQA. Compliance with ordinance standards is presumptive evidence of a less-than-significant impact. However, there could still be a noise nuisance created by unusual time, place or nature of the event even if there is no violation of the ordinance. Reliance on the ordinance standards may thus require project design features that further minimize nuisance impact potential.

## **SOURCES OF IMPACT**

There are several characteristic noise sources are typically identified with recreational development such as proposed at the project site. Construction activities will create short-term noise increases near the project sites. Upon completion, project-related traffic may cause a small incremental increase in area-wide noise levels throughout the project area. Outdoor project activities will entail recreational activities and associated noise. CEQA guidelines require evaluation of any change in the existing environment.

## CONSTRUCTION NOISE IMPACTS

Construction noise is typically governed by ordinance limits on allowable times of equipment operations. The City of Los Angeles limits construction activities to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.

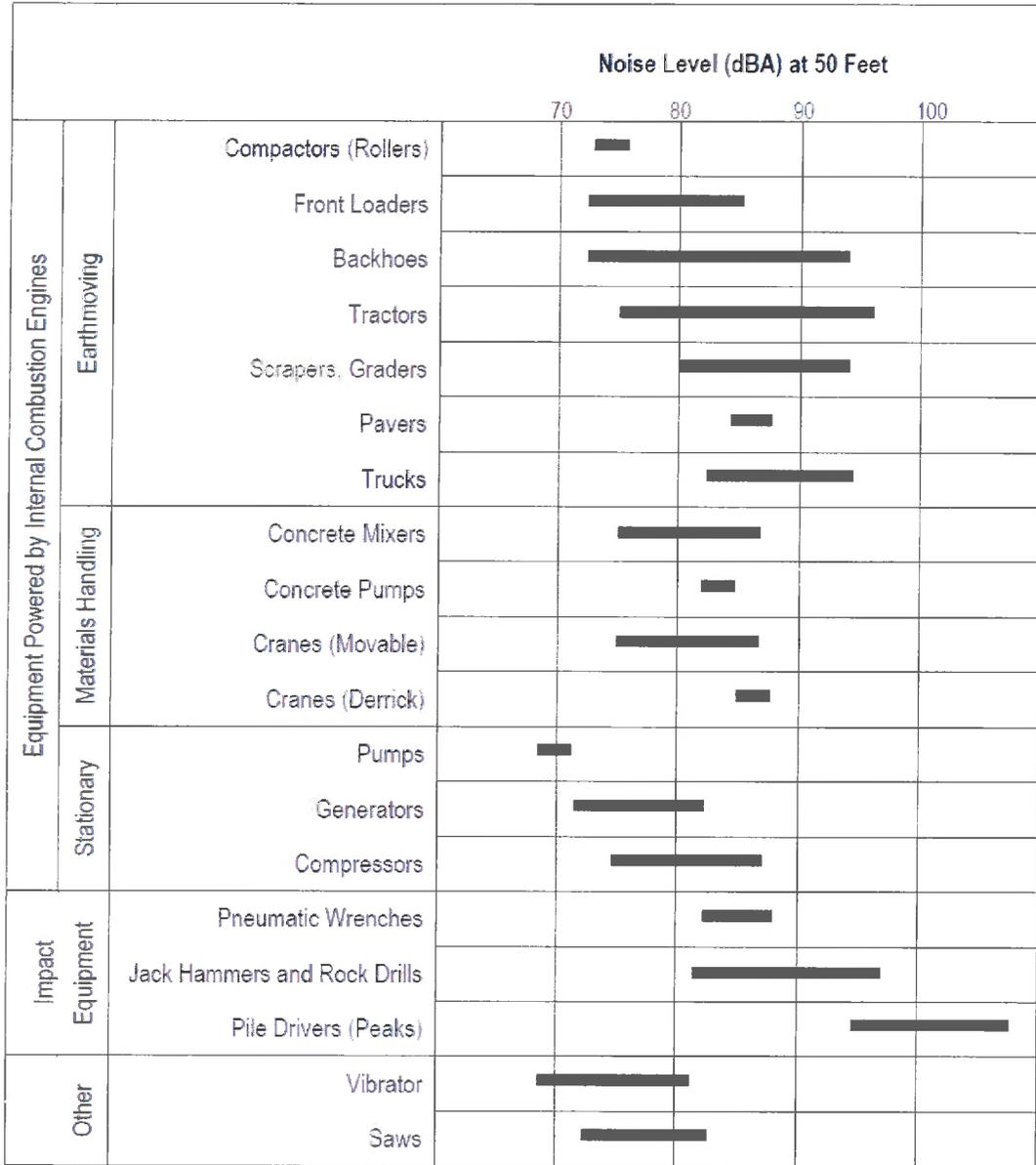
In addition, Section 112.05 of the Los Angeles Building Code specifies the maximum noise level of powered equipment or powered hand tools. Use of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited. However, the above noise limitation does not apply where compliance is technically infeasible (Section 112.05, Los Angeles Municipal Code). "Technically infeasible" means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment. An inability to reduce construction equipment noise exposure to 75 dBA or less at any off-site, noise sensitive use would be considered a significant, but temporary, noise impact.

Construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used which changes during the course of the project. Construction noise tends to occur in discrete phases dominated initially by demolition of the existing on-site structures and then for earth-moving sources and later for finish construction. Physical facilities construction for this project is very minimal. Only grading is anticipated to cause a potential noise disturbance.

As shown in Figure 2, heavy equipment noise can exceed 90 dB(A) and averages about 85 dB(A) at 50 feet from the source when the equipment is operating at typical loads. Most heavy equipment operates with varying load cycles over any extended period of time. The upper end of the noise generation range shown in Figure 2 represents short-term effects, while the longer term averages are most representative of the lower end of the indicated noise curves.

Construction noise exposure can be further worsened when several pieces of equipment operate in close proximity. Because of the logarithmic nature of decibel addition, two equally loud pieces of equipment will be +3 dB louder than either one individually. Three simultaneous sources are +5 dB louder than any single source. Thus, while average operational equipment noise levels are perhaps 5 dB less than at peak power, simultaneous equipment operation can still yield an apparent noise strength equal to any individual source at peak noise output. Whereas the average heavy equipment reference noise level is 85 dB(A), short-term levels from either peak power or from several pieces operating in close proximity can be as high as 90 dB(A).

**Figure 2**  
**Typical Construction Equipment**  
**Noise Generation Levels**



Source: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment and Operations."

Point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The loudest construction activities would require almost 280 feet of distance between the source and a nearby receiver to reduce the peak 90 dB source strength to the generally acceptable 75 dB exterior exposure level specified in Section 112.05 of the City Building Code.

The project site is surrounded by residential uses on three sides of the park perimeter. Thus there are noise sensitive land uses which are within 280 feet of heavy construction equipment operations which may be potentially impacted. A construction noise mitigation plan must be developed and implemented. The use of temporary sound curtains or smaller equipment can typically mitigate construction noise though unlikely to less-than-significant levels. A comprehensive list of these mitigation measures is provided at the end of this report in the "Mitigation" section.

Another potential noise impact resulting from construction of the proposed project is ground-borne vibration. Perceptible ground-borne vibration is typically associated with blasting operations and the use of pile drivers, neither of which would be used during construction of the proposed project. The vibration level of a small dozer that may be used is a peak particle velocity (PPV) of 0.003 inches/second (IPS) (FTA Handbook, 2006) at 25 feet. The damage threshold for extremely sensitive structures is 0.12 IPS. The vibration level from a small dozer is 40 times less than the most stringent damage threshold.

Maximum vibration would result during brief uses of a jackhammer to break up demolished structure foundations. The stated PPV for jackhammers is 0.035 IPS at 25 feet. This is still three times lower than any threshold of even possible minor damage. As such, no excessive ground-borne vibration would be created by the proposed project, and; therefore, impacts due to project-generated ground-borne vibrations are less than significant.

## **ON-SITE NOISE GENERATION**

### **Vehicular Impacts**

Park access is controlled by gates, and will be open from sun-up to sun-down. The park includes a 43 space parking lot. In the unlikely event that 43 vehicles all arrived or departed in a single hour the resultant noise level would be 46 dB Leq at 50 feet from source. This is less than the presumed daytime ambient level for residential use of 50 dB as well as lower than the ambient noise level and would not be detectable. The proposed block wall will separate the parking lot from adjacent residences and will provide additional vehicular noise attenuation. Almost all residences surrounding the site are single story units such that the block wall would cause a break in the line-of-sight to the residences.

The picnic shelter is sized to be able to accommodate seating for 200 persons. However, groups reserving the picnic shelter for special events will be responsible to obtain a permit. The MRCA will have the ability to impose restrictions on the number of attendees and vehicles as part of special event permitting and events would be evaluated on an individual basis.

The picnic shelter is in the northwest portion of the site. Only the existing residences at the end of Gleneden Street and the future residences (Ripple Place) at the northwestern terminus of Gleneden Street will be impacted. Observed existing ambient noise levels in the vicinity of the picnic shelter were 57 dB Leq.

From a review of the acoustical literature, very little quantitative information is available on noise levels from park users or from crowds in public gatherings. In addition, the noise levels produced are highly dependent on the nature of the activity that draws the crowd (e.g., speech, music, and so on). Human voices can generate a wide range of sound levels, and different people will vocalize differently under the same circumstances. Notwithstanding this variability, logical assumptions can yield estimates from which conclusions may be reached. A single person cheering at a moderately enthusiastic level can produce noise levels ranging anywhere from 80 dB to 100 dB at 3 feet in front of the person. A loud voice level of 90 dB at 3 feet would be reduced to 50 dB at a 300-foot distance through geometrical spreading of sound waves. The presumed ambient daytime residential level is 50 dB. The short-term standard is 60 dB. Loud human voice noise generation could be in excess of the ordinance standard to a distance of 100 feet for short periods the source and out to 300 feet for long-term noise generation.

Portable music and loud voices would typically comprise the bulk of public assembly noise that might be considered a nuisance at the nearest neighbors. Because such parties mainly occur during the day, daytime noise standards apply. Noise levels for social functions likely to occasionally occur at the park that involve amplified music can be as loud as 75 dB at a measured reference distance of 20 feet from the music or conversation source. Under line-of-sight conditions, spreading losses would reduce this noise level to 55 dB within 200 feet of the activity. Section 112.01(c) of the municipal code restricts noise levels to +5 dB above ambient. If the presumed ambient level at homes near the project site is 50 dB, noise levels exceeding 55 dB could violate the ordinance. Such levels would also be audible beyond the 150 foot limit specified in Section 112.01(b). Special functions (parties, fund raisers, community fairs, etc.) could cause a localized violation of the City's noise ordinance if they involved amplified music. Groups that plan such functions must therefore obtain a special events permit that temporarily suspends the ordinance limits. The permit must also establish strict limits on time, duration, location and other site-specific conditions that minimize potential noise nuisance.

A wrap around continuation of the proposed block wall around the entire north western project perimeter would assist in noise mitigation (currently a decorative fence is proposed to the west of the picnic shelter) and would provide approximately 6 dB of noise attenuation. The bulk of the noise impacts would be incurred by the immediate adjacent residences. Farther from the source, these residences would block noise for farther tiers of development.

## SUMMARY

Construction activities from project development should not affect the nearest off-site residential uses. Recommended mitigation measures to ensure compliance with City of Los Angeles Noise Standards would protect the adjacent residential properties and include the following:

- Construction activities are limited to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.
- All construction equipment shall be properly tuned and muffled according to manufacturer's specifications.
- Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited unless no means exist to reduce such noise below 75 dBA.
- Noisy construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be constructed as far as possible from the nearest noise- and vibration- sensitive land uses.
- The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized. Examples include the use of drills, jackhammers, and pile drivers.
- Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high levels of noise.
- The Proposed Project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.
- All construction truck traffic shall be restricted to truck routes approved by the City of Los Angeles Department of Building and Safety, which shall avoid residential areas and other sensitive receptors to the extent feasible.
- The project contractor shall use power construction equipment with state-of-the art noise shielding and muffling devices.
- The Proposed Project shall comply with the City of Los Angeles Building Regulations Ordinance No. 178048, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code, or any discretionary approval for the project site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City of Los Angeles Department of Building and Safety.

The project noise impact study indicates a less-than-significant noise impact from project-related traffic into or out of the project parking lot. Project-related traffic will not cause noise standards to be exceeded, nor make measurably worse any existing violation.

Site use for recreational activities or special event assembly involving any substantial number of attendees may cause the noise ordinance standard to be exceeded at the closets homes. The perimeter wall(s) will provide measurable noise reduction benefit, but there could be narrow windows of sound transmission that could impact the closest neighbors. The following measures will reduce noise impact potential to a less-than-significant level:

- Groups with more than 50 planned attendees shall be required to obtain a special events permit from the MRCA. The MRCA shall include in their Special Event Guidelines for Marsh Park a statement that operation of any radio, video, musical instrument or other noise-generating device at a level which is audible beyond 150 feet from the park boundary is prohibited. The reservation form for the event shall identify limitations on number of attendees, event timing and noise control features such as orientation of any voice/music amplification.
- An MRCA staff monitor shall be present for any nighttime event to ensure that the event does not generate noise levels that would disturb the peace, quite and comfort of the neighbors.
- The MRCA shall post a sign on-site which provides a phone number for contacting the agency.

