

Project 01 B10.A/B

**LAMP Roadway Guide Signage
Program (Phase 1 & 2)**

PROJECT CRITERIA AND SCOPING MEMO FOR: B10.A/B – LAMP ROADWAY GUIDE SIGNAGE PROGRAM (PHASES ONE & TWO)

DESCRIPTION

1.1 DESCRIPTION OF WORK

Upon completion of LAMP's new facilities, the roadway guide signage throughout the region must be reconfigured to direct drivers to these new facilities. The scope of this project includes removal of existing signage, modifications to existing signs, and installation of new signage in two phases:

1. An interim condition (Phase 1 - 2021) to be implemented for the opening of ITF West
2. A final condition (Phase 2 - 2023) to be implemented for the opening of the Automated People Mover (APM) and the Consolidated Rental Car Facility (ConRAC)

1.2 REQUIREMENTS SPECIFIC TO B10.A/B - LAMP ROADWAY GUIDE SIGNAGE

- A. All project requirements are to be completed in a timely manner by the DESIGN BUILDER in order to perform the scope of work and meet the project contract milestones for Phase 1 and Phase 2. The project specific requirements for the DESIGN BUILDER to complete include, but are not limited to, all construction related activities required to perform the scope of work, in addition to the items listed below:
 - a. Obtaining all permits necessary to complete the scope of work. 100% (permit ready) design packages will be provided to the DESIGN BUILDER by RS&H once fully approved by the AHJs (Authorities Having Jurisdiction). Per RS&H's most recent design schedule, the following packages can be anticipated by the DESIGN BUILDER at or around the following timeframes:
 - i. Phase 1 (Package 1)- End of 2020
 - ii. Phase 1 (Package 2)-End of 2020
 - iii. Phase 1 (Package 3)- Early February 2021
 - iv. Phase 2-Early October 2021
 - b. The DESIGN BUILDER shall coordinate with RS&H promptly for any design related information needed in order to complete the DESIGN BUILDER's scoping tasks when deemed necessary per the DESIGN BUILDER's construction schedule and meet the project contract milestones for Phase 1 and Phase 2.

- c. It is the responsibility of the DESIGN BUILDER to complete the Traffic Control Plans necessary to perform the scope of work for construction and completion of the Phase 1 and 2 signage by the project contract milestone dates.
- d. Exploratory borings shall be performed by the DESIGN BUILDER as needed for all type R05, R06, R10, and R12 signs based on the boring data acquired from RS&H in order to verify the presence and depth of uncertified fill. The DESIGN BUILDER is also responsible to pothole/field verify all sign locations prior to construction. Encroachment permits, additional permitting, and all related work for this effort shall be coordinated in a timely manner by the DESIGN BUILDER in order to meet the project contract milestones. If uncertified fill is found, the DESIGN BUILDER shall coordinate with the required AHJs and provide the information necessary to obtain complete approval for construction and implementation of all the RUE roadway signage.

1.3 SUBMITTALS

- A. Construction Phase Submittals shall be provided for AHJ review and acceptance as required by each AHJ. The DESIGN BUILDER is required to provide copies of Construction phase submittals to LAWA. For LAWA's submittal requirements for construction related material and equipment submittals, including the required project specific Submittal Schedule, refer to PR 9.
- B. It is the responsibility of the DESIGN BUILDER to obtain formal approval with LAWA and the required AHJ prior to installation, modification, or removal of any sign, permanent or temporary. No sign shall be installed, modified, or removed that does not adhere to LAWA or AHJ standard requirements and that has not been formally approved by LAWA and the required AHJ. If a sign, temporary or permanent, is installed, modified, or removed without formal approval by LAWA and the governing AHJ, the unapproved signage must be replaced by the DESIGN BUILDER immediately and adhere to LAWA and AHJ standard requirements. Replacement of unapproved signage shall occur at the DESIGN BUILDER's expense.
- C. The DESIGN BUILDER's constructability means and methods for updating messaging on the signage from Phase 1 to Phase 2 shall be reviewed and approved by LAWA at the shop drawing stage. All decisions regarding the signage messaging and nomenclature shall be coordinated with LAWA well in advance to meet the construction schedule constraints and project milestone dates. Refer to item D below and the message schedule in the plans on sheet SP-002 for further detail.
- D. All signage messages and nomenclature shall be finalized by LAWA. The DESIGN BUILDER shall coordinate with LAWA well in advance to allow for review and finalization of decisions regarding the signage messaging and nomenclature in order to meet the DESIGN BUILDER's shop drawing and fabrication timelines.

1.4 MATERIALS

- A. It is the responsibility of the DESIGN BUILDER to procure all construction materials for installation of the Phase 1 & 2 signage in a timely manner deemed necessary by the DESIGN BUILDER's construction schedule in order to meet all the project contract milestone dates.
- B. It is recommended, per RS&H's preliminary schedule, that materials for the Phase 1 signage be procured by the DESIGN BUILDER after 90% comments from the AHJs are addressed to achieve the project contract milestone date for Phase 1. It is the sole responsibility of the DESIGN BUILDER to determine the exact date required for procurement of the Phase 1 materials, coordinate with RS&H to acquire any design related items, and procure the materials at the time determined necessary by the DESIGN BUILDER in order to meet the project milestone date for Phase 1.
- C. Signage vendor selection criteria shall include at a minimum, but is not limited to, the following qualification criteria:
 - a. Experience delivering projects similar to the scope of work herein described at large scale airports and/or complicated urban environments
 - b. Proof of responsiveness and reasonable travel distance to LAX
 - c. Experience with the permitting process in the City of Los Angeles or similar complex urban environment necessary to complete the scope of work.

1.5 EXECUTION

- A. Refer to Project Requirements and AHJ Regulatory Requirements.
- B. The DESIGN BUILDER shall refer to the message schedule in the plans (sheet SP-002) to update the RUE signage as needed and coordinate with any other LAMP developers to maintain complete roadway circulation pathways at all times.
- C. If changes occur including, but not limited to, schedule related impacts or impacts during construction (i.e. LAMP roadways are built earlier than anticipated; an existing sign in the RUE scope is impacted by construction), it is the DESIGN BUILDER'S responsibility to coordinate with LAWA, the appropriate AHJs, and the necessary developers and implement, modify/adjust, or remove the RUE signage as necessary and detailed in the plans to reflect the correct comprehensive roadway circulation condition at all times.

1.6 QUALITY ASSURANCE

- A. Comply with the AHJ and RUE II Project Requirements including Quality Assurance and Quality Control requirements.

- B. Quality Management Plan for work within Caltrans right-of-way is subject to Caltrans review and approval.

1.7 SCOPE DOCUMENTS

Attachment A - RUE Procurement Documents – Plans

Attachment B – Preliminary Geotech Report

1.8 REFERENCES

Attachment B.1 – Previous Geotechnical Data

Attachment C – Change Matrix

**END OF PROJECT CRITERIA FOR LAMP ROADWAY GUIDE SIGNAGE PROGRAM
(PHASES ONE & TWO)**

Project 02

R26

**Sepulveda Blvd. CCTV Traffic Signal
Improvements**

PROJECT CRITERIA AND SCOPING MEMO FOR: R26 - SEPULVEDA BLVD CCTV TRAFFIC SIGNAL IMPROVEMENTS

1.1 INTRODUCTION

- A. Per LAMP FEIR Mitigation Measure MM-ST (LAMP)-8, seven (7) intersections along Sepulveda Boulevard shall be fitted with new closed-circuit television (CCTV) cameras to provide real-time traffic monitoring. These CCTV cameras will upgrade the current transportation system by providing local transportation agencies the capability to efficiently monitor traffic flow at these intersections and quickly respond to incidents. The DESIGN BUILDER will implement (complete design, coordinate and permit with Authorities Having Jurisdiction (AHJs), perform, and construct) the traffic signal improvements at the following intersections:
1. Sepulveda Boulevard and Imperial Highway (Caltrans),
 2. Sepulveda Boulevard and I-105 Exit 1C (westbound off-ramp) (Caltrans),
 3. Sepulveda Boulevard and Century Boulevard (City of Los Angeles),
 4. Sepulveda Boulevard and Lincoln Boulevard (City of Los Angeles),
 5. Sepulveda Boulevard and Westchester Parkway (City of Los Angeles),
 6. Sepulveda Boulevard and La Tijera Boulevard (City of Los Angeles), and
 7. Sepulveda Boulevard and Manchester Avenue (City of Los Angeles).
- B. The seven intersections belong to two different agencies: Caltrans and the City of Los Angeles. The two locations at Imperial Highway and at the I-105 Westbound off-ramp belong to Caltrans. The rest are the City's. Both agencies use different communication equipment to transmit the CCTV images. Caltrans uses all digital methods and equipment for the image transmission. The Department of Transportation of the City of Los Angeles (LADOT) uses both digital and analog methods and equipment for the image transmission.
- C. The DESIGN BUILDER will acquire the City of Los Angeles B permits and approval from LADOT, as well as any necessary permits and approvals from all other AHJs for the work required at the City's five signalized intersections. For the two Sepulveda signals at Century Blvd. and Lincoln Blvd., additional Caltrans encroachment permit is required because the joint maintenance cost sharing. The DESIGN BUILDER will acquire the Caltrans Encroachment permits as well as any necessary permits and approvals from all other AHJs for the work required at the Caltrans' two signalized intersections.

1.2 DESCRIPTION OF WORK

- A. Prior to responding to the RFP; the DESIGN BUILDER shall investigate the project site locations to understand the full extent of the proposed work. Utilizing the preliminary/ proposed locations for cameras/ equipment/ camera support poles/ conduit indicated in

the Scoping Drawings; the DESIGN BUILDER will be required to advance the preliminary design to a comprehensive set of construction documents for a complete and operable system which is fully integrated with the existing CCTV camera system operated by both LADOT and Caltrans. The DESIGN BUILDER shall provide (furnish and install) all infrastructure (including any AHJ required site improvements) required to support a new pan/ tilt/ zoom camera at 7 (seven) intersection locations on Sepulveda Boulevard between Imperial Highway/ I-105 and Manchester Ave. Requirements related to this CCTV project that include, but are not limited to, the following:

1. Completing the vantage point analysis to determine where the CCTV camera will be installed at each signal location to monitor the traffic.
2. Installing the communication equipment required to transmit the CCTV images.
3. Performing code/agency required civil/street and sidewalk improvements and accessibility upgrades, to meet municipal/ and state code/ accessibility requirements.
4. Maintaining traffic flow, both pedestrian and vehicular, during construction.

1.3 REQUIREMENTS SPECIFIC TO CCTV TRAFFIC SIGNAL IMPROVEMENTS

- A. The proposed cameras installed within Caltrans right-of-way (ROW) will feed back to the Caltrans TMC via Caltrans existing fiber network. Cameras within City ROW will feed back to LADOT's TMC via LADOT's video fiber network. LAWA will have the ability to access the live CCTV feeds through the RIITS network. Cameras installed within Caltrans ROW will comply with Caltrans standards (digital) and will be maintained by Caltrans. Cameras within City ROW will comply with LADOT's standards (cameras that support both digital & analog video) and will be maintained by LADOT.
- B. Caltrans has an existing fiber line that runs along Sepulveda Boulevard at Imperial Highway intersection and runs along I-105 viaduct to the LAX Hub building located on La Cienega Boulevard at I-105 WB off-ramp. This project will tie in to this existing Caltrans fiber line at Sepulveda Boulevard at Imperial splice pull box to connect the two new CCTV cameras to the existing Caltrans video network. The existing video fibers are connected to a Caltrans LAX Hub building, which already has connectivity to the Caltrans TMC.
- C. LADOT's existing communication hub is located at the LAWA police station near the intersection of Sepulveda Boulevard & 96th Street. The existing fiber system that connects to the hub does not have capacity for the five additional LADOT cameras. DESIGN BUILDER to furnish and install additional fiber and infrastructure required to connect to the hub.
- D. Scope of work shall include, but not be limited to, the following:
 - a. DESIGN BUILDER to obtain the latest available as-built plans, conduct field investigations, survey and map existing street conditions, and use the information obtained to validate/ advance the preliminary design concepts.

- b. Site investigation prior to design (with signal maintenance personnel) to confirm the following:
 - i. Space availability in existing equipment cabinets (for any new required equipment or power supply).
 - ii. Space availability in existing conduits (for new cable/ wiring).
 - iii. Point of connection for power source.
 - c. Existing Utilities – Available utility data has been included on sheet TU-001. Comply with the Project Requirements for Potholing to confirm underground utility locations in areas of proposed work before finalizing design.
 - d. Designing, furnishing, installing, and testing of the equipment, conduits, and network cabling.
 - e. Design and Construction of any additional surface street improvements, as required by the AHJs, due to modifications required to install the 7 new CCTV Cameras.
- E. If CCTV camera support poles or street light poles or any other cabinet or piece of equipment needs to be installed/ relocated to complete the scope of work, then the DESIGN BUILDER is responsible for any and all collateral street improvements required due to the new CCTV related work in the area. Improvements include but are not limited to, ADA/ Accessibility upgrades, storm drain improvements, or any other AHJ required code upgrade due to the modifications required to install the CCTV infrastructure at each intersection. Pedestrian and vehicular circulation shall be maintained during construction.
- F. Preliminary Vantage Analysis – Caltrans Camera Locations
 - 1. Imperial Hwy and Sepulveda Boulevard - Because of the potential sight distance restriction created by the I-105 freeway viaducts, Caltrans suggested to place the Imperial Highway/Sepulveda Boulevard CCTV camera on top of the existing pole by replacing the removable rain cap on the top of the pole with an adapter for the camera. This will situate the camera under the viaduct to view both traffic directions. There is an LAWA 2017-2019 project (no. DA-5050IS) to improve the signalized intersection at Sepulveda Boulevard and Imperial Highway with two NB right turn lanes, designed by TYLIN/FPL. It is assumed the improvement will be finished prior to the subject CCTV project. This proposed CCTV improvement is developed per this basis.
 - 2. I-105 WB off ramp and Sepulveda Boulevard - The recommendation is to add a new CCTV camera system, separate from the existing ramp traffic signal system. A new CCTV pole and camera together with its controller cabinet will be placed on the west side of Sepulveda Boulevard, providing wide-open visibility.
- G. Preliminary Vantage Analysis – LADOT Camera Locations
 - 1. Manchester Av and Sepulveda Boulevard – A new 29-5-100 signal pole with a 6- or 10-foot camera arm is proposed at the southeast corner, replacing the exiting pole no. 3.

2. La Tijera Boulevard and Sepulveda Boulevard - A new CCTV pole with 10-foot camera arm is proposed at the southwest corner, replacing the existing pole no. 7.
3. Sepulveda Boulevard and Westchester Pkwy - A new CCTV pole with 10-foot camera arm is proposed at the southwest corner, replacing the existing pole no. 5.
4. Lincoln Boulevard & Sepulveda Boulevard - A new CCTV pole with 10-foot camera arm is proposed in the median island, replacing existing pole no. 9 (Preliminary Caltrans approval for this location is was obtained).
5. Century Boulevard & Sepulveda Boulevard - A new CCTV pole with 6- or 10-foot camera arm is proposed on the north side Sepulveda Boulevard median island, 10 feet from the nose of the island, replacing the existing type 1 signal pole (Preliminary Caltrans approval for this location was obtained).

H. Caltrans Fiber Communication Design Concept

1. Caltrans communication design concept is to utilize the existing 60SMFO from the existing fiber optic splice enclosure pull box at the Imperial Hwy at Sepulveda Boulevard intersection to the LAX HUB building on La Cienega Boulevard at I-105 EB off-ramp and install the following:
 - a. A new 12SMFO cable from the proposed CCTV controller cabinet at I-105 WB off ramp at Sepulveda Boulevard intersection to the existing fiber optic splice enclosure pull box at Imperial Hwy and Sepulveda Boulevard intersection as depicts in the concept traffic signal and video fiber communication plan.
 - b. A new 12SMFO cable from the existing signal controller cabinet at Imperial Hwy at Sepulveda Boulevard to the existing fiber optic splice enclosure pull box by the controller cabinet as depicts in the concept traffic signal and video fiber communication plan.

I. LADOT Fiber Communication Design Concept

1. The communication design concept is to utilize the a existing 3-inch conduit along Sepulveda Boulevard from Manchester Avenue to Lincoln Boulevard and existing 2-inch conduit along Sepulveda Boulevard from Lincoln Boulevard to Century Boulevard, to the ATSAC Communication HUB on 96th Street. If the existing ATSAC conduits are in corrosive environment, they should be replaced. Install new fiber optic splice enclosure at each of the traffic signal location listed above with a new 12SMFO cable to the controller cabinet as depicted in the CONCEPT traffic signal and video fiber communication plans.

- J. DESIGN BUILDER will exercise extreme care to include the new fiber into the existing conduit and to ATSAC Communication HUB on 96th Street. If pull boxes, conduits, or conductors are damaged, DESIGN BUILDER shall replace with new equipment at the DESIGN BUILDER's expense.

- K. The preliminary design/ bridging documents show the street lighting system at the Manchester/Sepulveda intersection to be modified because of the proposed signal pole replacement.
- L. Caltrans LAX Hub improvement: Install one (1) SFP module switch level 3 (fiber jumper) to connect two new CCTV cameras from Imperial Hwy at Sepulveda
- M. The conduit to cross Sepulveda Blvd at the Caltrans ramp location will be bored.
- N. Caltrans LAX Hub improvement: Install one (1) SFP module switch level 3 (fiber jumper) to connect two new CCTV cameras from Imperial Hwy at Sepulveda Boulevard and Sepulveda Boulevard at I-105 westbound off-ramp to Caltrans TMC through existing fiber network.
- O. Caltrans TMC improvement: Install two (2) decoders and system integrators are required to integrate the new two (2) CCTV cameras with the existing Caltrans systems and Regional Integration of Intelligent Transportation Systems (RIITS).
- P. LADOT LAX Communication HUB Building on 96th Street: Install one (1) Fiber Distribution Unit (FDU), five (5) video receivers, and one (1) multiplexer. DESIGN BUILDER will hire a System integrator to integrate the new five (5) CCTV cameras with the existing ATSAC systems and Regional Integration of Intelligent Transportation Systems (RIITS).
- Q. The DESIGN BUILDER has the option to connect the CCTV camera at Sepulveda/ (Little) Century using a pathway other than what is specified in the Scoping Document plans. LADOT has indicated that the camera could be connected to a signal at Jetway/ Century via Century Boulevard. This VF connection could be achieved by installing an additional 24 SM VF cable in existing conduit provided the DESIGN BUILDER receives all AHJ approvals.
- R. There is an asphalt sidewalk and curb ramp adjacent to where the cabinet no. 2 (TS-3 (Sepulveda @105)) will need to be located. DESIGN BUILDER to maintain/ modify and, if required, obtain agency acceptance of the ADA/ accessible pathway in the area of the proposed new cabinet.
- S. There is a catch basin, restaurant entrance/ monument (statue), and existing newspaper boxes at/ near the proposed camera pole location at TS-7. DESIGN BUILDER to coordinate work to locate street light as required to provide an ADA compliant walkway within the existing ROW.
- T. There is landscaping and irrigation located in the median where the new light pole is to be installed at TS-4. DESIGN BUILDER to protect in place or replace landscaping and irrigation per AHJ requirements.

- U. DESIGN BUILDER's certified systems integrator to perform the acceptance test at end of TMC integration works.
- V. Pavement, Striping, Landscaping, Irrigation and all other restoration: Refer to Project Requirements.
- W. Long lead items for this scope include but are not limited to traffic signal poles with long mast arm, CCTV pole, CCTV controller cabinet.

1.4 SUBMITTALS

- A. Design Phase Submittals shall be provided for Agency and stakeholder review and acceptance as required by the AHJs. LAWA to be copied on all submittals, and all resubmittals, until the project receives acceptance from all AHJs. Refer to PR1 and PR11 for additional design related submittal requirements.
 - 1. The proposed/ preliminary CCTV camera positions/ locations shown on the scoping documents, and described in this scoping memo, have been reviewed by the LADOT and Caltrans. Prior to NTP for Construction; the DESIGN BUILDER shall perform a both a bucket view test and acceptance test of the proposed CCTV Camera locations and provide the results as a deliverable to the AHJs to confirm there are no line of sight or maintenance issues..
 - 2. The DESIGN BUILDER is responsible for submitting for review and obtaining all approvals from the authorities having jurisdiction for the work, Submittals include but are not limited to, traffic control plans during design investigations (for pot holing activities), and street lighting modifications (if street lighting modifications are required). Partial list of project specific preconstruction submittal requirements and the AHJ's who review and approve the work includes the following:
 - a. B Permits (LADOT)
 - b. Encroachment Permits (Caltrans)
 - c. Traffic Control Plans (LADOT/ Caltrans)
 - d. Street Lighting Plans (LABSL)
 - e. LAMP Impact Requests (CALM (LAWA))
 - f. ADA/ Accessibility Plans (LABOE, LADBS (for private property))
 - g. Civil/ Storm Drain Improvements (LABOE, LADBS (for private property))
 - h. Irrigation/ Trees/ Plants (LABSS/ Caltrans)
 - i. Power (LADWP/ SCE)
- B. Construction Phase Submittals shall be provided for AHJ review and acceptance as required by each AHJ. The DESIGN BUILDER is required to provide copies of Construction phase submittals to LAWA. For LAWAs submittal requirements for

construction related material and equipment submittals, including the required project specific Submittal Schedule, refer to PR 9.

- C. The DESIGN BUILDER is responsible for submitting, for AHJ review and acceptance, project specific Equipment Testing and cutover plan(s). The plans, one for LADOT and one for Caltrans, shall to be integrated into the DESIGN BUILDER's project construction schedule prior to NTP for construction.

1.5 PROTECTION OF THE PUBLIC:

- A. Protection of the public roadways, and maintenance of traffic, including lane closures, detours, and closures, only when allowed by the AHJs. Refer to PR-03.
- B. Significant elements of the work such as full-street closures, permanent on and off-ramp closures, requires acceptance by the AHJs in advance.
- C. Furnish and use flaggers as specified in Final Traffic Management Plan, Caltrans MUTCD, and WATCH Manual. Furnish flaggers where construction equipment may intermittently encroach on traffic lanes, unprotected sidewalks and crosswalks, and where construction operations would affect public safety and convenience.
- D. Work within Caltrans jurisdiction shall follow the requirements specified in the Final Transportation Management Plan.
- E. At all times during performance of the work, the Design-Builder shall comply with the requirements of the cities, Caltrans, utility owner, and all other applicable regulatory agencies regarding areas and times of work restrictions. Failure to comply shall not be the basis of any Request for Change Order. DESIGN BUILDER shall obtain written approval from the applicable City, Caltrans, utility owner, or governmental person to deviate from requirements regarding areas and times of work restrictions.
- F. During construction, all existing traffic signals and street lights need to be maintained in operation, except where traffic signals conflict with temporary traffic controls. The DESIGN BUILDER is responsible for ensuring that the existing level of street lighting is maintained along affected roadways. Temporary street lighting shall be provided where needed to maintain the existing lighting level, or other level as may be required by LAWA, the City, or Caltrans.
- G. Traffic Control Officers (TCO), by Los Angeles Department of Transportation (LADOT), will be required during work involving shut down of traffic signals and may be necessary

of other stages of the work. Notify LADOT and obtain approval before performing work within signalized intersection. The Design-Builder shall pay the costs of TCO time.

- H. Pedestrian access shall be maintained at all times. When sidewalk work requires temporary closures of portions of sidewalk on a block, work shall only be done on one side of the street at a time so that accessible pedestrian routes are available on the other side of the street.
- I. Do not store construction material and equipment in a manner that would create visibility obstructions to motorist, or visibility of pedestrians in the walkway from the roadway. The storage of material and equipment in the public right-of-way is not permitted without prior approval by the local jurisdiction.

1.6 QUALITY ASSURANCE

- A. Comply with the AHJ and RUE II Project Requirements including Quality Assurance and Quality Control requirements.
- B. Quality Management Plan for work within Caltrans right-of-way is subject to Caltrans review and approval.

1.7 SCOPE DOCUMENTS

Attachment A - 30% Bridging Documents – Plans

Attachment B - LADOT Technical Specifications

- 1. LADOT CCTV Camera Specification
- 2. Updated LADOT CCTV Camera Specification & Video Equipment provided by LADOT.

Attachment C - Caltrans Technical Specifications

- 1. Caltrans CCTV Camera Specification
- 2. Updated CCTV Camera Specification & Video Equipment provided by Caltrans District 7.

1.8 REFERENCES

Attachment D - AHJ Coordination

Attachment E - Record Drawings

Attachment F - Conduit Fill Calculations

Attachment G - Field Notes

Attachment H - Photos

Attachment I – CAD Files

1.9 MATERIALS

- A. There will be two PS&E packages, one for Caltrans approval and one for LADOT approval. The cameras and other materials and equipment within the Caltrans ROW will be per Caltrans standards such as manufacturer/ type, pan-tilt-zoom mechanism, environmental appurtenances, fiber communication equipment, signal and CCTV pole, signal and CCTV pole modifications, controller and cabinet, cabinet upgrades, cables, conduit, etc. Similarly; the cameras and other materials and equipment within the City's right of way will be per LADOT standards.
- B. LADOT CCTV Camera Specification –CCTV camera Specification and video equipment provided by LADOT on January 16, 2020.
- C. Caltrans CCTV Camera Specification –CCTV camera Specification and video equipment provided by Caltrans District 7 on January 14, 2020.
- D. DESIGN BUILDER should be aware that camera technology may evolve and require an installation based on revised camera specifications.

1.10 EXECUTION

- A. All Caltrans traffic signals/ modifications to traffic signals shall conform to the requirements of the State of California, Department of Transportation, Standard Plans and Specifications, Dated 2018 Edition and all City of Los Angeles traffic signals shall conform to the latest Special Provisions and Standard Drawings for the Installations and Modification of Traffic Signal (Red book).
- B. Refer to Project Requirements and AHJ Regulatory Requirements.

END OF PROJECT CRITERIA FOR: SEPULVEDA BLVD CCTV TRAFFIC SIGNAL IMPROVEMENTS

Project 03

R30

**La Cienega Blvd. / Century Blvd.
Intersection Improvements**

PROJECT CRITERIA AND SCOPING MEMO FOR: R30 – LA CIENEGA BLVD / CENTURY BLVD INTERSECTION IMPROVEMENTS

DESCRIPTION

1.1 DESCRIPTION OF WORK

A. The Design Builder will be responsible for designing, obtaining all permits and constructing the La Cienega/Century intersection improvements as indicated on the scoping drawings. The La Cienega Blvd & Century Blvd intersection will be restriped, within existing curb limits, to allow two left-turn lanes, two through lanes, and two right-turn lanes in the northbound direction and two left-turn lanes, two through lanes, and one right-turn lane in the southbound approach. On the westbound approach, the northernmost through lane will be restriped as a right-turn only lane. The eastbound approach will stay as existing. The La Cienega Blvd & Century Blvd intersection upgrades will also include new traffic signal heads, poles, and mast arms, the addition of audible pedestrian signals, adjustment of loop detectors, and additional detector for the added northbound lane, update of the regulatory sign north of the intersection to agree with the single right turn lane and curb ramp and crosswalk improvements.

B. Background

Improvements to roadways serving the area adjacent to the proposed Consolidated Rental Car (ConRAC) and surrounding facilities are an important component of the Los Angeles World Airports (LAWA) Landside Access Modernization Program (LAMP). The proposed roadway improvements are designed to reduce congestion and enable passengers to more efficiently access Los Angeles International Airport (LAX), provide direct connections from the local highways to the ConRAC and surrounding facilities, and reduce traffic impacts to local communities. Per LAMP Final Environmental Impact Report (FEIR) Mitigation Measure MM-ST (LAMP)-12, prior to completion of LAMP Phase 1, modification of the intersection of La Cienega Boulevard and Century Boulevard is an essential component of future year 2035 traffic impacts mitigation at an acceptable, planned level of service along the La Cienega corridor.

La Cienega Boulevard traverses in a north-south direction across several jurisdictions (City of Los Angeles, City of Inglewood, County of Los Angeles). Classified as a Boulevard II in the City of Los Angeles and a major arterial highway in the City of Inglewood, La Cienega Boulevard generally provides two to three lanes in the southbound direction and two lanes in the northbound direction with a posted speed limit of 40 miles per hour. Parking is permitted along certain stretches of this roadway. This roadway provides connections to the I-405 Freeway in the southbound direction, north and south of Century Boulevard, as well as access to Imperial Highway.

1.2 GENERAL REQUIREMENTS

- A. Work shall include final design, furnishing and installing improvements to the La Cienega Boulevard/ Century Boulevard as indicated on the scoping drawings.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- F. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Major Transit And Transportation Construction Traffic Management Committee
 - g. Los Angeles Fire Department
 - h. Los Angeles World Airports (LAWA)
 - i. City of Inglewood
 - j. City of Inglewood Fire Services
 - k. Los Angeles County Department of Public Works (LACDPW)
 - l. South Coast Air Quality Management District
- G. Technical Specifications List
The technical specifications and standard plans for this project include are not limited to:
 - a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. Los Angeles County Department of Public Works, Additions and Amendments to the Standard Specifications for Public Works Construction (Graybook)
 - c. City of Los Angeles Department of Public Works, Standard Specification for Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. Los Angeles Department of Transportation, Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals
 - f. City of Los Angeles Bureau of Street Lighting Special Specifications for the Construction of Street

- g. Lighting Systems (Blue Book)
- h. City of Los Angeles Board of Public Works, Enhanced Electrical Safety Policy (Red Book)
- i. City of Los Angeles Bureau of Engineering Standard Plans
- j. California Department of Transportation (Caltrans) Standard Plans and Specifications
- H. Required permits include, but are not limited to:
 - a. Encroachment and Excavation Permit (Inglewood)
 - b. "B" Permit (LABOE)
 - c. "E" Permit (LABOE)
 - d. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - e. Temporary Street Closure Permit (LABSS)
 - f. Road Permit (LACDPW)

1.3 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ

1.4 REGULATORY REQUIREMENTS

Design guidelines and requirements for this project

- A. City of Los Angeles Complete Streets Design Guide
- B. City of Los Angeles Bureau of Engineering Street Design Manual Conform to requirements of the Project Requirements and the AHJ
- C. Los Angeles Department of Transportation Application and Design Guidelines for Striping, Channelization and Special Signing
- D. City of Los Angeles Department of Transportation Traffic Signal Design Guidelines
- E. City of Los Angeles Bureau of Street Lighting Design Standards and Guidelines
- F. California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition
- G. Caltrans Highway Design Manual (Latest Edition)
- H. Work Area Traffic Control Handbook (WATCH), latest revision, as adapted by the City of Los Angeles
- I. Board of Public Works and the Department of Transportation
- J. City of Los Angeles Department of Transportation Drafting Standards for Striping & Signal Plans
- K. City of Inglewood Encroachment Permit and Excavation Permit
- L. City of Inglewood Department of Public Works Standard Plans
- M. Los Angeles County Department of Public Works Standard Plans
- N. Los Angeles County Department of Public Works Traffic Impact Analysis Report
- O. Los Angeles County Department of Public Works Procedures for the Preparation of Street Light Layouts by Private Developer
- P. Continental crosswalk will be used on all intersection crossings. 20-foot-wide crosswalks will be used at high pedestrian areas or on the receptive leg of dual left turns, instead of the standard width of 15 feet.

- Q. Curb ramps will be reconstructed in accordance with City of Los Angeles Bureau of Engineering Standard Plan S-442-5. Due to the existing field conditions, and property acquisition is beyond the scope of this project, the proposed curb ramps shall be Case G, or Case G where the existing constraints do not allow for Case G curb ramp construction. These existing field conditions and constraints shall be documented and approved by the City Engineer.
- a. The existing curb ramp at the northwest corner is completely within the City of Los Angeles jurisdiction. The curb ramp has a border width of 7 feet and is surrounded by two driveways and at the tangents of the curb. Adding a dual ramp, Case G, would require relocating the existing driveways which is beyond the scope of this subproject. A Case H curb ramp is proposed. All existing traffic signal poles and equipment on this corner will be replaced with new equipment to accommodate the new lane and traffic signal phasing configurations, as well as to maintain ADA conformance.
 - b. The existing northeast curb ramp is within City of Inglewood's right-of-way. The curb ramp has a border width of 7.5 feet and there is a storm drain curb inlet within the curb radius along La Cienega Blvd. In order to protect the curb inlet in place, constructing a type G curb ramp would require skewing the curb ramps to the east which would replace the cross walk, traffic signals, conduits, and pull boxes. The northeast ramp is proposed as a Case H ramp.
 - c. The existing southeast curb ramp shares jurisdiction with Los Angeles County and the City of Inglewood. The existing curb ramp is not up LABOE standards. The southeast curb ramp is proposed as a Case G ramp which requires the replacement of traffic signals, conduits, and pull boxes.
 - d. The southwest corner is within the City of Los Angeles jurisdiction. The curb ramp has a border width of 7.5 feet and is located in front of bollards and an office building. The ramp could be reconstructed as a dual ramp (Case G) but would require the relocation of both traffic signals poles and adjustments of utilities. Impacted utilities include a fire hydrant, water valve, and gas valve. A Case H curb ramp is proposed. All existing traffic signal poles and equipment on this corner will be replaced with new equipment to accommodate the new lane and traffic signal phasing configurations, as well as to maintain ADA conformance.
- R. Construction standards for reconstruction shall meet the requirements of LABOE Street Design Manual.
- S. Design vehicle selection shall be governed by the LABOE Street Design Manual.
- T. Obtain necessary approvals for design exceptions for shoulder widths from the LABOE for the existing restrictive situation.
- U. LABOE Street Design Manual set-back requirements for location of limit lines shall govern at the Intersections.
- V. Ultimate intersection configuration shall maintain all existing crosswalks.

W. The La Cienega Boulevard & Century Boulevard ITS Improvements need to meet all the requirements of the City of Inglewood, the City of Los Angeles, and the County of Los Angeles.

1.5 QUALITY ASSURANCE

- A. Conform to requirements of the Project Requirements and the AHJ Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall be in compliance with Conform to requirements of the Project Requirements and the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Delivery, storage and handling shall comply with the project requirements and those of the AHJ.

1.8 ATTACHMENTS

- A. 30% Bridging Documents La Cienega Century Intersection-Plans

1.9 REFERENCE DOCUMENTS

- A. Meeting Minutes
- B. Reference Drawings & Reports
- C. Cad Files

1.10 Initial Coordination with Authorities Having Jurisdiction

The design team also received preliminary comments from LADOT and LABSL. For any signalized intersection, LADOT will require review of new poles and modifications. BSL requires an intersection lighting calculation (Traffic Conflict Area calculation) to be calculated that will meet City standards. The lighting calculation will dictate the type of luminaires (wattage) that will be installed on poles. LADOT also expressed concern about the northbound and southbound lane widths and the lanes not aligning on La Cienega Boulevard. These are existing conditions that this subproject is proposing to maintain.

LADOT is requesting an upgrade from the existing Type 332 cabinet to a Type 351 cabinet with an external battery backup system (BBS). This request will need further clarification from LADOT since the cabinet upgrade would constitute a betterment to the subproject. If the existing cabinet is to remain, an external battery backup system (BBS) cabinet will be attached to the existing traffic signal cabinet instead of installing a separate stand-alone BBS cabinet.

LADOT is requesting protected plus permissive (flashing yellow arrow) phasing for the eastbound and westbound left turn movements. This request will require the removal of the existing major mast arm poles on the northwest and southeast corners and installation of new traffic signal pole standards with longer mast arms. The new pole installations will likely cause LABOE to request that the existing curb ramps be upgraded to current ADA standards. Additionally, LADOT will not allow the northbound to eastbound dual right turn lanes to operate concurrently with the pedestrian crossing across the east leg. This will require special traffic signal phasing to separate the two movements.

The existing CCTV camera and communication equipment attached to the existing C-2-100 pole at the northwest corner will be relocated to a new C-1-100 standard pole, since the new 61-5-100 pole does not have the same CCTV height mounting capability as the existing C-2-100 pole. The new C-1-100 pole will replace the existing LABSL streetlight pole located at the BCR of the same corner.

As part of the standard intersection improvements, LADOT is requesting installation of Accessible Pedestrian Signals (APS) for all crossings and countdown pedestrian indications.

An encroachment and excavation permit will be required from the City Inglewood for the new curb ramp and traffic signal pole replacement at the northeast corner. An encroachment and excavation permit will also be required from the City of Los Angeles for the traffic signal pole replacement in the southwest corner of intersection.

The design team held weekly coordination meetings with LAWA. Meeting minutes are included as reference documents.

1.11 Other design or construction considerations

There are other proposed projects and subprojects that will have impacts within the subproject's proposed limits. For example, the proposed 12" ERDIP waterline's (project U32) southern limits extend across the northwest corner of the intersection. Final design and construction of the La Cienega Blvd & Century Blvd Intersection Upgrades will require coordination with these other projects.

The traffic control report (TCR) shall be revised to see if protected only left turn is warranted for east and westbound left turns, per Engdu Workneh, LADOT. A Traffic Impact Analysis must also be prepared for LACDPW review. Traffic Index calculations shall be prepared in accordance with the Caltrans Highway Design Manual (Latest Edition).

The FEIR identifies the number of traffic lanes that these proposed improvements are designed for. The existing lane widths at La Cienega Blvd and Century Blvd intersection are already in non-compliance with AHJ requirements. One of LADOT's preliminary comments was to remove the northbound dual right and make it a single right with overlap. This change will be in line with LADOT directive to remove free right with crosswalk operation. Further discussions and

decisions between LAWA, LABOE, LADOT, LACDPW, and City of Inglewood must be made to finalize the number of traffic lanes, their alignments, and widths.

The traffic signal poles to be replaced share street lighting luminaires. Existing street lighting systems shall remain in operation during any modification. Any proposed temporary street lighting system must be approved by the Los Angeles County Department of Public Works and City of Los Angeles Department of Public Works Bureau of Street Lighting.

As part of the LADOT interconnect and video fiber improvements, the ConRAC project is to show the installation of a new 3" conduit with a 48 SMFO and a 12-pair interconnect cables from Arbor Vitae Blvd. to the construction limit of this subproject. LAWA is requesting that this subproject show the continuation installation of the 3" conduit with the same cables to where the CONRAC design ends at the I-405 southbound ramps. Since the CONRAC plan is not available to show exactly where the new 3" conduit will be tied into, the signal plan for this subproject shows the new conduit and cable connections between the existing cabinet at the La Cienega Blvd. & Century Blvd. and the existing cabinet at the I-405 southbound ramp intersection.

In order for the new traffic signal poles to be installed without requiring temporary signal plans, the proposed pole foundations must have sufficient clearance from the existing traffic signal pole foundations, the proposed poles must have the required spacing from potential conflict items (i.e. trees, catch basins, driveways, fire hydrants, other utilities, etc.), and the existing sidewalk is wide enough to provide ADA access with the new pole installations.

LA Metro operates bus routes through the intersection of La Cienega Blvd and Century Blvd. All road closures and construction activities shall be coordinated with all Transit Operators.

A City of Inglewood business license must be obtained by the Contractor and Subcontractors before the Public Works Permit will be issued.

2.0 MATERIALS

2.1 Comply with requirements listed in this Scoping Memo, the bridging documents and requirements of the AHJ.

3.0 EXECUTION

3.1 Complete design and obtain all required permits per AHJ and Project Requirements.

3.2 Schedule and construct work per AHJ and Project Requirements.

3.3 Obtain acceptance of completed work and close permit.

**END OF PROJECT CRITERIA FOR: LA CIENEGA / CENTURY INTERSECTION
UPGRADES**

Project 04

U32

La Cienega 12" Water Line

PROJECT CRITERIA AND SCOPING MEMO FOR: U32 –LA CIENEGA 12" WATER LINE

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. The Design Builder shall design, obtain all permits and construct a 12 inch waterline in La Cienega as indicated in this scoping memo and the scoping documents. The scope of this project consists of finalizing the design and construction for replacement of the existing 8-inch asbestos cement (AC) waterline with a 12-inch ERDIP waterline within La Cienega Boulevard and running north-south between Century Boulevard and 200 feet north of the La Cienega Boulevard and new 98th Street intersection as indicated on the scoping drawing and attachments.

B. Existing Condition

The proposed project improvement areas are located within Los Angeles city limits, directly adjacent to the City of Inglewood. The southern limits of the project are in the northwestern corner of the intersection of La Cienega Boulevard and Century Boulevard.

The existing pipe runs north from here approximately 9.4 feet from face of curb to South La Cienega Boulevard. The Los Angeles city limit boundary with City of Inglewood extends down the eastern side of the western-most lane, approximately 11' from face of western curb. The southern section of pipe runs parallel to the Los Angeles city limit, offset by approximately 18", turns west at South La Cienega Blvd, then north again within South La Cienega Boulevard, approximately 22.4 feet from face of western curb. The proposed project limits terminate approximately 30 feet north from the centerline of existing 97th Street. The existing pipe is 8" asbestos cement pipe which services fire hydrants, former residential housing, and the Holiday Inn hotel. Within the proposed project limits, there are three laterals for existing fire hydrants in adjacent sidewalks, three laterals for now-abandoned residential neighborhood cul-de-sacs, and three services for the Holiday Inn (fire, domestic, irrigation).

The existing location and characteristics of underground utility information was obtained from available record data. The existing utilities were investigated via LAWA records, NavigateLA, and Los Angeles Department of Water and Power's (LADWP) records.

12 Potholes were performed to determine size of existing utility, top and bottom elevation of utility, type and material of utility, and existing ground elevation. Pothole data discovered a 4" gas line running north to south two feet east and 10 feet north of the beginning of the raised median between La Cienega Blvd. and South La Cienega Blvd. Three additional pothole locations along this same alignment farther north did not discover the same gas line. This pothole data was incorporated into the proposed profiles, however additional potholes will be required to confirm location and elevation for

point of connections and any nonpotable utility within 10 feet parallel of the proposed waterline, per California Health and Human Services Agency, Department of Public Health.

There are several other utilities directly adjacent to the existing and proposed waterline alignments including sewer, oil, gas, fiber optic communication duct banks, high voltage power duct banks, and storm drains. Positioning of these adjacent utilities, depths of crossing utilities, verification of manholes and important landmarks were all observed in the records from LAWA and NavigateLA. The record data was supplemented by visual observation, and topographic survey and are therefore approximate. No representation is made as to the accuracy or completeness of utility lines shown or any unknown utilities. All existing utilities within the project limits that are designated to remain in place shall be maintained, accessible and protected at all time. The contractor is responsible for verifying the location of these existing underground utilities in a work area prior to performing any construction operations in that area.

1.2 GENERAL REQUIREMENTS

- A. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- B. The termination at the north end of the project shall be coordinated with the ConRAC project team, conforming to AHJ requirements. The design builder will be responsibility for a temporary tie in to the existing 8 inch AC waterline if the ConRAC 12-inch ERDIP waterline is not already installed.
- C. The design will require approval of the Los Angeles Department of Water and Power (LADWP), per the Water Distribution Division's Engineering Standards Manual.

All agreements for the design and installation of all Department water systems are subject to all rules and regulations of the City Charter of the City of Los Angeles and the Rules Governing Water and Electric Services in the City of Los Angeles. These Engineering Standards apply only to main extensions which will be incorporated into the Distribution System.

All plans and specifications submitted to the Engineer for review and approval of a main extension shall be prepared by, or by someone under the direct supervision of, a Professional Engineer registered by the State of California. The Professional Engineer shall be responsible for the preparation of the design, plans, and specifications and for conducting required field surveys for design purposes. All submitted plans and specifications shall bear the Professional Engineer's seal or stamp prior to approval for construction.

The Applicant, Contractor, and Professional Engineer associated with the plans shall be responsible for the adequacy and satisfactory performance of the design and the installation or all items therein, and any failure or unsatisfactory performance of the system, so constructed, shall not be a cause for action against the Department. The Department does not perform engineering services for any person or entity in connection with its review of plans. Approval of plans by the Department signifies only that the plans meet the minimum requirements of these Engineering Standards based upon the information provided to the Department by the Professional Engineer and/or Applicant/Contractor and makes no finding, representation, or warranty that the system and associated components will perform any certain function.

If the Professional Engineer responsible for the plans disagrees with any changes required by the Engineer as a result of the Department's review of the plans, such disagreement shall be brought to the attention of the Engineer for resolution prior to the start of construction of the project set forth in the plans. The seal or stamp of the Professional Engineer on plans corrected and approved for construction will signify that the Professional Engineer has reviewed, approved, and authorized the corrected plans for construction.

The plans and specifications approved by the Engineer shall govern when in conflict with DWPWS-D101, Engineering Standards Manual, and other plans or specifications.

The plans have been reviewed for compliance with LADWP-W. Design guidelines and requirements that the final design must pertain to:

- Plan Check Review Document for Percent Complete Submittals, as last revised by LADWP
- Proposed waterline shall have at least 10' clearance from all adjacent non-potable water source.
- Proposed waterline must be installed and active before removing existing waterline.
- Proposed curbs and gutters shall be in place prior to start of construction.
- The location of all fittings will be verified and approved in the field by the DWPWS inspector prior to installation.
- Ductile iron pipe and appurtenances will be encased in 8-mil clear polyethylene film tubes.
- All distances to fittings are measured along the pipe from nearest intersecting street curb or property line.
- All work that is detailed throughout this project, except otherwise stated should be constructed in accordance with Department of Water and Power System Standard Specification D-101 (DWPWS D-101); "The Standard Specifications for Public Works Construction" 2012 edition; And the notice to contractors-comprehensive, S-610, as last revised; The brown book 2012 edition; And standard plans referred to therein as last revised.

- All fittings that are subjected to an unbalanced hydrostatic force shall be restrained with 2000 PSI Concrete thrust blocks bearing against undisturbed soil. In addition, same fittings and adjacent 60 Linear feet shall be restrained with lock-joint gaskets or yokes and rods where applicable.
 - All material, equipment and construction will be subject to continuous inspection by DWPWS.
 - An exemption will be required from the health department anywhere the proposed waterline comes
 - within the prohibited zone, per Sewer and Water Main Separation requirements (LADWP standard drawings A9437 and A9438).
 - Alignment of watermain shall avoid all bus pads, curb and gutter, sidewalk, and other concrete work.
 - Alignment of watermain shall stay within City of Los Angeles's right-of-way.
 - Construction standards for reconstruction shall meet the requirements of LABOE Street Design Manual and Caltrans Highway Design Manual – 307.7 Reconstruction Projects.
 - Pavement sections shall be governed by LABOE Street Design Manual, Design vehicle selection shall be governed by the LABOE Street Design Manual, LADOT requirements, and Caltrans Highway Design Manual – Topic 404 - Design Vehicles, as applicable.
 - Design-BUILDER shall routinely coordinate with LAWA LAMP Coordination and Logistics Management (CALM) team and LAWA Third Party team to review the project progress, development and especially the Traffic Management Plan and updates to Traffic Management Plan throughout the duration of the project.
 - Approvals of non-standard designs shall be governed by the provisions of pertinent AHJs, or, in the absence of any such guidance, by the Caltrans Highway Design Manual – 82.2 Approvals for Nonstandard Design.
 - Design and construction shall with the **Requirements for Earthquake Resistant Ductile Iron Pipe (ERDIP)** provided in this RFP.
- D. The Design Builder will be responsible for obtaining all permits required by the Authorities Having Jurisdiction.
- E. The design shall be defined as the engineering drawings, maps, plans, calculations, computer software, estimates, and specifications necessary to install, operate and maintain the waterline in accordance with the LADWP engineering standards manual.
- F. The design shall provide for the protection of existing and newly installed facilities, the elimination of conflicts between the proposed waterline, existing and proposed above ground and subterranean facilities, the minimization of service outages to LADWP customers (in either number or duration) and in consideration of the longer term maintenance and operation of the proposed water facilities.

- G. The project may be designed and constructed in segments or phases at the discretion of LADWP provided that each section is a logical segment that can be constructed, pressure tested, chlorinated and put into service in totality. The proposed segment must be hydraulically independent such that it is able to provide the required flow to meet all fire and domestic demand on its own without sacrificing water flow to an existing adjacent segment of the water system.
- H. Temporary facilities may be designed to provide temporary fire or domestic demand to allow a segment of waterline to be removed during construction provided they provided adequate supply for fire or domestic demand, are protected, and are designed to withstand the anticipated temporary duration without fail.
- I. The final design of this project shall be considered to consist of several phases: conceptual, detailed and completed. The design shall be considered 85% complete after completion of the conceptual and detailed phases. The percentage complete applies to the level of detail of the design as determined by the AHJ, the Design Builder is responsible for all submittals and resubmittals necessary to obtain approval from the AHJ.
- J. All other appurtenances as required for a complete and operable system as required by the AHJ.
- K. Traffic Control – as required by the AHJ.
- L. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- M. Location of Underground utilities – based on research and pot holing by the Design Builder.
- N. Pavement, Striping, Landscaping and all other restoration required by the AHJ.
- O. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- P. Design shall coordinate this design with other RUE design/build projects: 98C1A, 98C1B and C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.
- Q. Additional Coordination and Design Information

At the northern project limits, the ConRAC project will be removing the existing 8" AC waterline and installing 12" ERDIP that will ultimately continue north. At the time of this writing, no information about their proposed alignment or project timing has been provided for this assignment's design consideration. The waterline's proposed alignment will maintain existing alignment parallel and adjacent to the Los Angeles city limits. In order to maintain service north of this project, a temporary 45 bend will be necessary to connect back to the existing 8" AC pipe until ConRAC's 12" ERDIP line is installed. A meeting shall be scheduled to discuss the limits, project scope, and schedule of both teams to determine any conflicts as well as tie-in locations.

The existing water line shall be maintained and operational until the proposed line is constructed and ready for cut-over. There is not enough room within the City of Los Angeles' right-of-way to construct a new waterline east of the existing waterline, so the approximately 7 feet space between existing curb & gutter and waterline will be utilized for the proposed 12" ERDIP. This will require extensive shoring of existing sidewalk and curb & gutter and still provide minimal clearance around proposed pipe. This will also present challenges at the driveways for adjacent business and at the alleyway north of gas station. There is also an existing City of Inglewood traffic control duct bank that is installed within the footprint of the proposed waterline. It is assumed that this traffic control duct bank will be relocated prior to construction of the 12" ERDIP.

The alignment of southern section of proposed waterline will follow the profile of the existing waterline to minimize conflicts with crossing utilities. This will create a conflict at South La Cienega Blvd where the existing line turns west. The tie-ins to existing point of connections on the north (one 8") and south (one 8" and one 12") shall be closely coordinated with this crossing and removal of existing pipe to help minimize sweeps in the proposed ERDIP pipe.

ERDIP uses specialized fittings and joints to provide increased pipeline and joint flexibility and deflection ranges, as well as reduce the risk of pipeline failures due to seismic and other differential displacement inducing events. There are three major suppliers of ERDIP: American Pipe, Kubota, and U.S. Pipe. Each has their own ERDIP proprietary joint system. Backfill requirements shall be reviewed with ERDIP supplier.

R. Authorities Having Jurisdiction (AHJ).

- a. Los Angeles Department of Water and Power – Water Distribution (LADWP-W)
- b. Los Angeles Department of Public Works, Bureau of Engineering (LABOE)
- c. Los Angeles Department of Transportation (LADOT)
- d. Los Angeles World Airports (LAWA)
- e. California Department of Transportation District 7 (Caltrans D7)
- f. Los Angeles County Flood Control District (LACFCD)
- g. Crimson Pipeline L.P.
- h. Southern California Gas (So Cal Gas)
- i. Southern California Edison (SCE)

- j. Charter Communications Los Angeles Department of Water and Power
- k. Los Angeles Bureau of Street Lighting (LABSL)
- l. Los Angeles Bureau of Street Services (LABSS)
- m. Major Transit And Transportation Construction Traffic Management Committee
- n. Los Angeles Fire Department
- o. Los Angeles World Airports (LAWA)
- p. City of Inglewood
- q. City of Inglewood Fire Services
- r. Los Angeles County Department of Public Works (LACDPW)
- s. South Coast Air Quality Management District

Additional coordination information based on contact with the AHJ

Crimson Pipeline, whom own and maintain a 12" line within La Cienega Blvd, has construction requirements when working in the proximity of one of their pipes, which have been followed to the extent possible at this stage of design. Crimson shall be contacted for coordination; at minimum they require two copies of any proposed plans for work within their right-of-way provided 45 calendar days prior to commencement of work. See Attachments for a list of construction requirements.

S. Technical Specification List.

- City of Los Angeles Bureau of Engineering Specifications
- Los Angeles Department of Water and Power Specifications D101
- Los Angeles Department of Water and Power Standard Engineering Standard Manual
- City of Los Angeles Bureau of Engineering Standard Plans
- American Public Standard specifications for Public Works Construction, "Green Book", latest edition
- Los Angeles County Department of Public Works, City of Los Angeles Standard Specification for Public Works Construction, "Brown Book", latest edition

In addition to the above referenced, the following technical specifications shall apply

- F01322 – Record Documents
- F01330 – Submittals
- F01415 – Permits and Plan Checks
- F01430 – Inspection
- F01520 – Field Offices and Storage
- F01563 – Control of water
- F01640 – LADWP-Furnished Products
- F01720 – Surveying
- F02260 – Excavation Support and Protection
- F02315 – Trenching, Backfilling, and Compacting for Water Pipelines
- F02412 – Ground Treatment for Tunnel
- F02415 – Tunnel Instrumentation and Monitoring
- F02445 – Horizontal Boring and Jacking

- F02515 – Pipeline Testing
- F02564 – Installation of Earthquakes Resistant Ductile Iron Pipe
- F02565 – Linings and Coatings for Welded Steel Pipe and Earthquake Resistant Ductile Iron Pipe
- F02740 – Asphalt Concrete Paving
- F03210 – Reinforcing Steel
- F03300 – Cast-In-Place Concrete
- F03480 – Precast Concrete Circular Vaults and Maintenance Holes
- F05121 – Vault Stainless Steel Grating, Grating Supports, Ladders, And Miscellaneous Specialties
- F13110 – Cathodic Protection
- F15300 – Installation of LADWP-Furnished Mechanical Equipment

See Attachment for outline specifications and sample specifications.

1.3 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ.

1.4 REGULATORY REQUIREMENTS

- B. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE FOR PIPING

- A. Provide the services of a certified manufacturer's representative of ERDIP to instruct the Contractor on the installation procedures in compliance with the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store as required by the Project Requirements and permit drawings and specifications.

1.8 SCOPING DOCUMENTS

- A. U32 12" Waterline in La Cienega - Plans.
- B. **Requirements for Earthquake Resistant Ductile Iron Pipe (ERDIP)**

1.9 REFERENCE DOCUMENTS

- A. Technical Specifications
 - a. 1. Outline Specifications & Sample Specifications
 - b. 2. Kubota ERDIP Project Records in US
- B. AHJ Meeting Minutes

- C. LADWP Plan Check Review Requirements
- D. Reference Drawings & Reports
 - a. LAX Rental Car Center Water Design Report, dated December 16, 2016
 - b. LADWP Water Service Map
 - c. R08 SB I-405 / La Cienega Blvd On-ramp and Off-ramp Modifications Project (30% Submittal, dated April 22, 2019)
 - d. Pothole Data (dated December 19, 2019)
 - e. Construction Requirements in the Proximity of Crimson Pipelines Deliver and store valves in shipping containers with labeling in place.
- E. Cad Files

2.0 MATERIALS

- 2.1 Comply with requirements on the bridging documents and as required by the AHJ and attachments.

3.0 EXECUTION

- 3.1 Complete design and obtain all required permits as required in the Project Requirements.
- 3.2 Schedule and construct work.
- 3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA FOR LA CIENEGA 12" WATER LINE

Project 05 R08

**I-405 / La Cienega Blvd. On-Ramp &
Off-Ramp Modifications**

PROJECT CRITERIA AND SCOPING MEMO FOR TASK R-08: I-405/LA CIENEGA BLVD, ON-RAMP AND OFF-RAMP MODIFICATION PROJECT

1 - DESCRIPTION

1.1 Description:

- A. The I-405 Off-Ramp Widening Project will reconfigure the intersection of La Cienega Blvd, I-405 on and off ramps, and future 98th Street. The project is located within the right-of-way of The State of California Department of Transportation (Caltrans), City of Inglewood, and City of Los Angeles. The project consists of widening La Cienega Blvd; widening I-405 Exit 46, Century Blvd on-ramp and off-ramp; and about 200 feet of future 98th Street from La Cienega Blvd. The intent of this project is to provide sufficient vehicular capacity and access to the future Consolidated Rental Car Facility (ConRAC). The Design-Builder shall reference initial scoping drawings included in the Reference Documents of this work package, and continue the design to a complete set of Construction Documents including all plans, specifications and permits necessary to construct the work. It is the Design-Builders responsibility to furnish staff, labor, materials, tools, equipment, supervision, services and incidentals necessary for the performance and completion of the Work, in every respect, as prescribed by the Contract Documents for this project.
- B. The Contractor shall identify all required permits necessary for the design and construction of the work. Wherever the property of the Federal Government, the State of California, City of Los Angeles, the City of Inglewood, any local utilities, or of any other agency is affected by this specified work, the Design-Builder shall procure all permits, give all notices necessary, and bear the cost of all permits and inspection lawfully exacted by said Government, State, County, City, District, Department, or other agency during the time of performing the work affecting said property. Copies of all approvals and permits shall be submitted to LAWA. The Design-Builder will bear all the burden of construction delays caused by delays in pulling permits.

1.2 Limitations to Project Criteria and Scoping Memo:

- A. This scoping memo is preliminary and conceptual in nature
- B. Design-Builder shall ascertain whether there are any design errors, omissions, inconsistencies or other defects inherent in the Scoping Documents, and notify LAWA's authorized representative in writing such errors, omissions, inconsistencies or defects and potential resulting problems
- C. Proposed Right of Way Requirements Verification – The Design-Builder shall request the following land surveying documentation from LAWA upon receiving written Notice to Proceed (NTP) for this scope of services:
 - 1. Project Land Net Boundary Retracement Survey Base Map dated August 7th, 2019 or latest version should this date be superseded. (Provided in Reference Documents)

2. Record of Survey filed in Book 298, Pages 51 through 59, inclusive, of Records of Survey in the Office of Los Angeles County. (Provided in Reference Documents)
 3. Previous topographic/control/boundary retracement surveys performed by Wagner Engineering, Inc. supporting the 35% Concept Plans.
 4. 35% Right of Way Requirements Plans as accepted by Caltrans District 7 supporting the 35% Concept Plans. (Provided in Reference Documents)
- D. The Design-Builder shall provide written correspondence to LAWA within 30 Calendar Days from receipt of the Notice to Proceed of either accepting all documentation and their intent to incorporate into their final 100% design, or a Written Request to Modify (Modification Requests) proposed right of way requirements and/or retraced existing rights of way/easements/street centerlines. Modification Requests shall include sufficient backup information including the purpose for the requested change, concepts exhibit illustrating the change, and impacts to adjacent property owners. All Modification Requests shall be subject to LAWA's review and approval. LAWA requires 10 Calendar Days to review and approve/reject all written modification requests. The Design-Builder shall be responsible for all costs and preparation of supporting Right of Way Engineering Documentation (legal descriptions, plat map exhibits, appraisal maps, boundary surveys, records of survey, etc.) necessary to support LAWA's property acquisition efforts for Modification Requests provided to LAWA after the 30 Calendar Day period without reimbursement from LAWA.
- E. The Design-builder shall review the LAWA and Caltrans Cooperative Agreement (Co-Op). The Design builder shall take into account special provisions listed in the Co-Op with regards to bidding the project and the construction schedule.

1.3 Proposed Condition:

- A. Reference shall be made to the executed Project Study Report-Project Report (PSR-PR) for design criteria. Reference shall also be made to Draft Tentative Tract Map 74326 and Draft Letter of Determination for TTM 74326.
- B. Caltrans acceptance is required for all design within the Caltrans jurisdiction. The improvements within the City of Inglewood shall conform to the requirements of the City of Los Angeles. The B-Permit Indexed drawings and specifications shall govern for work within City of Inglewood and City of Los Angeles.
- C. Where agencies such as Caltrans require a different specification format, the Design-Builder shall adhere to those requirements in the compilation of the specifications.
- D. The street improvement work along La Cienega Blvd. and new 98th street must be designed and coordinated with the ConRAC developer. The ConRAC developer will be reconstructing La Cienega Blvd. from Arbor Vitae to the limits of this project. Continuity of the alignments will need to be coordinated amongst the developers.
- E. The Design-Builder is responsible for coordinating the design and construction of other RUE projects. Interfacing projects include, but are not limited to the following:

- U32 – 12" Waterline
- U33 – Fiber Optics
- 98th Street Work Packages.

1.4 Construction Staging Plans:

Construction staging plan shall provide for the handling of vehicular and pedestrian traffic disrupted during construction of the Project and shall show construction phases, road closures, detours, signs and other pertinent information. Sequencing of the work may require temporary striping, signal relocation or modification, and permanent closures. All Authorities Having Jurisdiction (AHJ) requirements shall be met.

1.5 Construction Area:

- A. LAWA will obtain private right-of-way, and construction easement as shown on the Right-of-Way Agreement Map.
- B. The construction laydown and staging areas are as noted in PR-4.

1.6 Existing Condition Review:

- A. Design-Builder shall evaluate, survey and map existing street conditions, including but not limited to locating/identifying all utilities, street light and signal poles, street signs and traffic markings, electrical service poles and controller cabinets, fire hydrants, manholes and valves, existing driveways, curb and gutters, storm drains and appurtenances, benchmarks, street elevations, street drainage flow and any other objects and conditions located and pertinent within the work limits.
- B. Design-Builder shall maintain the clearances, set by regulatory agencies, for overhead power lines and other utilities during construction.
- C. The ConRAC program is currently under design and development. The latest drawings, at the time of issuance of this document, is included in the Reference Documents of this package. This projects northern boundary on La Cienega Blvd. interfaces with the ConRAC program.

1.7 Third Party Coordination:

- A. Design-Builder shall coordinate and implement the work with AHJ including Caltrans, City of Inglewood, and City of Los Angeles. Coordination also includes utility companies and private property owners.

- B. One driveway, at a minimum, shall be made available to the surrounding businesses at all times. Notification and approval from LAWA is required when any ingress and/or egress will be impacted by the work.
- C. Los Angeles Department of Water and Power (LADWP) and Southern California Edison (SCE) overhead electrical lines along La Cienega Blvd. must be relocated from current alignment. It is the Design-Builders responsibility to coordinate the relocation efforts appropriately to minimize and prevent impacts to schedule. Overhead power line relocation efforts shall be coordinated with the ConRAC developer and AHJs.
- D. Future 98th Street, west of project limits is adjacent to the ConRAC project. Construction coordination will be necessary.
- E. The street and curb alignments on La Cienega Blvd shall interface with the final condition designed by the ConRAC developer. Design-Builder shall provide final street alignment to Utility Companies that are relocating utilities.
- F. The ConRAC construction of La Cienega Blvd may be occurring simultaneously with this project. The Design-Builder shall account for temporary traffic control configurations for safe routing of vehicular traffic.
- G. Third Party Agencies, not limited to:
 - a. Los Angeles Worlds Airports (LAWA)
 - b. City of Los Angeles
 - c. City of Inglewood
 - d. Caltrans District 7
 - e. Department of Water and Power (LADWP)
 - f. Southern California Edison (SCE)
 - g. Crimson Pipeline
 - h. Verizon
 - i. Private businesses not listed

AHJ may exercise review and approval function in coordination with the LAWA Project Manager at key points in the development process. All contacts with AHJ will be directed through the LAWA Project Manager.

The Design-Builder shall track the progress/schedule of the utility company relocation efforts in order to have utility relocated prior to construction (preferred) or to ensure final approved utility relocation plans are attached to the construction plans including the number of working days required by the utility company to construct their facilities clearly identified in the Special Provisions. A utility matrix shall be prepared listing the facility type, construction material, location/depth and disposition of utilities within the Project limits.

1.8 Project Status and Schedule:

At the time of issuance of this document, the project is in the design phase, with 30% completion of design prepared by LAWA to the Design-Builder as a bridging document. It is the Design-Builders responsibility to review the bridging documents prepared by LAWA, and complete the

design to the satisfaction of all reviewing agencies. The Design-Builder shall take full-ownership of the progression of design, and meet the schedule for this project stated in Volume 1 of the RFP. LAWA may issue an updated set of drawings, addressing AHJ comments to the 30% design, as an addendum to this RFP.

Design-Builder shall be familiar with City of Los Angeles, City of Inglewood, and Caltrans' plan check submittal procedures and timelines and shall schedule plan check submittals in order to maintain the Project Schedule.

The Design-Builder shall complete the Work in a timely manner according to the completion dates, as specified in Volume 1 of the RFP, after the date for commencement of the work; as set forth in the Notice to Proceed issued by LAWA. Failure to achieve Substantial Completion within the Rue Task Duration will result in the assessment of Liquidated Damages. Design-Builder shall be prepared to strategically phase all RUE Tasks, construction, coordinate utilities, generate independent design packages, and other means as necessary to meet contract milestone objectives.

Contract Milestone 6: Design-Builder shall achieve Substantial completion for the roadway improvements on La Cienega and 98th Street. B-Permit associated work shall be accepted by City of Los Angeles Department of Public Works Bureau of Contract Administration (CONAD) Finals Inspection. LAWA may close access in and out of 98th street from La Cienega until the completion of the ConRAC facility, and other RUE Task scopes of work.

Contract Milestone 7: Design-Builder shall achieve Substantial Completion of the improvements in the Caltrans jurisdiction.

1.9 Protection of the Public:

- A. Protection of the public roadways, and maintenance of traffic, including lane closures, detours, and closures, only when allowed by the AHJs. Refer to PR-03 of Volume 1.
- B. Significant elements of the work such as full-street closures, permanent on and off-ramp closures, requires acceptance by the AHJs in advance.
- C. Furnish and use flaggers as specified in Final Traffic Management Plan, Caltrans MUTCD, and WATCH Manual. Furnish flaggers where construction equipment may intermittently encroach on traffic lanes, unprotected sidewalks and crosswalks, and where construction operations would affect public safety and convenience.
- D. Work within Caltrans jurisdiction shall follow the requirements specified in the Final Transportation Management Plan.
- E. At all times during performance of the work, the Design-Builder shall comply with the requirements of the cities, Caltrans, utility owner, and all other applicable regulatory agencies regarding areas and times of work restrictions. Failure to comply shall not be the basis of any Request for Change Order. Design-Builder shall obtain written approval from the applicable City, Caltrans, utility owner, or governmental person to deviate from requirements regarding areas and times of work restrictions.

- F. During construction, all existing traffic signals and street lights need to be maintained in operation, except where traffic signals conflict with temporary traffic controls. The Design-Builder is responsible for ensuring that the existing level of street lighting is maintained along affected roadways. Temporary street lighting shall be provided where needed to maintain the existing lighting level, or other level as may be required by LAWA, the City, or Caltrans. Temporary modifications to traffic signals may be required as the construction creates changes in geometry and operation at the signals. The timing of the installation of new or modified traffic signals and street lights shall be carefully coordinated.
- G. Traffic Control Officers (TCO), by Los Angeles Department of Transportation (LADOT), will be required during work involving shut down of traffic signals and may be necessary of other stages of the work, or during other detour operations. Notify LADOT and obtain approval before performing work within signalized intersection. The Design-Builder shall pay the costs of TCO time.
- H. Pedestrian access shall be maintained at all times. When sidewalk work requires temporary closures of portions of sidewalk on a block, work shall only be done on one side of the street at a time so that accessible pedestrian routes are available on the other side of the street.
- I. Do not store construction material and equipment in a manner that would create visibility obstructions to motorist, or visibility of pedestrians in the walkway from the roadway. The storage of material and equipment in the public right-of-way is not permitted without prior approval by the local jurisdiction.

1.10 Quality Assurance

- A. Comply with the AHJ and Volume 1 Project Requirements, Quality Assurance and Quality Control requirements.
- B. Quality Management Plan for work within Caltrans right-of-way is subject to Caltrans review and approval.

2 – REFERENCE DOCUMENTS:

2.1 Reference Documents

This work package includes Reference Documents that detail agency requirements. Design Builder shall refer to the Reference Documents for additional project details.

Continued on next page

Documents	Issued By
Environmental Impact Report (EIR & MMRP) Volume 1 & 2	LAWA
Project Study Report - Project Report (PSR-PR)	LAWA
30% R08 I-405 LaCienega Design Package	LAWA
Letter of Determination	City of Los Angeles
LAWA and Caltrans Cooperative Agreement (Co-Op)	Caltrans
Right-of-Way Map	Caltrans
Commercial Properties Exhibit	LAWA
Tentative Tract Map	City of Los Angeles
Los Angeles Maintenance Agreement	City of Los Angeles
City of Inglewood Maintenance Agreement	City of Inglewood
Pothole Data Report (See U32 – 12" Waterline Reference Files)	LAWA
Crimson Pipeline Construction Notice (See U32 – 12" Waterline Reference Files)	Crimson Pipeline
Crimson Pipeline Drawing	Crimson Pipeline
ConRAC 60% Design-Submittal	LAWA
Geotechnical Design Report for 30% Design	Diaz Yourman & Associates
LAMP, Project Land Net Boundary Retracement Survey Base Map	LAWA
Record of Survey	LAWA
Exhibit for LABOE Geometry Acceptance	LABOE

2.2 Precedence of Contract Documents:

- A. If there is a conflict between contract documents, document of highest precedence shall control. All doubts as to the true meaning of any part of the Plans, Specifications or other contract documents, or finds discrepancies in or omissions from the Plans and Specifications, or desires to address issues regarding the physical site, Design-Builder shall submit to LAW A a written request for an interpretation or correction.

Caltrans Right-of-Way:

1. Environmental Impact Report (EIR & MMRP)
2. Project Study Report-Project Report (PSR-PR)
3. Task R-08, Scoping Memo
4. Caltrans Approved Design Drawings
5. Project Special Provision
6. Caltrans Standard Specification, Per Approved Design
7. Caltrans Standard Plans, Per Approved Design
8. RUE Special Provisions
9. RUE General Conditions

City of Los Angeles and City of Inglewood Right-of-Way:

- a. Environmental Impact Report (EIR & MMRP)
- b. City of Los Angeles B-Permit Indexed Drawings
- c. Task R-08, Scoping Memo
- d. APWA Standard Specification
- e. APWA Standard Plans
- f. RUE Special Provisions
- g. RUE General Conditions

3 - PROJECT FILES:

File and maintain project files per AHJs requirements.

**END OF PROJECT CRITERIA AND SCOPING MEMO FOR TASK R-08: I-405/LA CIENEGA
BLVD, ON-RAMP AND OFF-RAMP MODIFICATION PROJECT**

Project 06.1

R20/R25-C1A

New 98th Street – Civil Package 1A

PROJECT CRITERIAL AND SCOPING MEMO FOR: R20/R25-C1A – NEW 98TH STREET CIVIL PACKAGE 1A

1. PROJECT DESCRIPTION:

New 98th Street consists of three roadway packages each under a different B permit number. The new 98th Street 98C1A package B-permit BR402873 connects to Bellanca Avenue and extends eastly approximately 550 feet east of Aviation Boulevard where it joins the 98C1B package. The limits of the 98C1A package also extends north of the 98th Street Aviation Boulevard intersection and south of the 98th Street intersection to Century Boulevard as depicted in the 98C1A package drawings. This package includes a new signalized intersection at Bellanca Avenue and Aviation Boulevard, Street Lighting, Signing and Striping, street drainage, Landscape and Irrigation, retaining walls, and Low Impact Development (LID)/Green Street improvements. The project scope also includes the removal of the existing Aviation Boulevard detour (shoofly) improvements, public and private trees, and removal of abandoned utilities and other improvements on private (LAWA and Metro owned) property and public property.

1.1 GENERAL REQUIREMENTS

- A. Work shall include completing the 98C1A design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design and other design started and required by the AHJ and obtaining permits and installing the improvements indicated on the drawings.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles County Flood Control District (LACFCD)
 - g. Major Transit And Transportation Construction Traffic Management Committee
 - h. Los Angeles Fire Department
 - i. Los Angeles World Airports (LAWA)
 - j. South Coast Air Quality Management District

F. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
- b. Los Angeles County Department of Public Works, Additions and Amendments to the Standard Specifications for Public Works Construction (Graybook)
- c. City of Los Angeles Department of Public Works, Standard Specification for
- d. Public Works Construction, "Brown Book", additions and amendments to the
- e. latest edition
- f. City of Los Angeles Bureau of Engineering Specifications
- g. Los Angeles Department of Transportation, Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals
- h. City of Los Angeles Bureau of Street Lighting Special Specifications for the Construction of Street
- i. Lighting Systems (Blue Book)
- j. City of Los Angeles Board of Public Works, Enhanced Electrical Safety Policy (Red Book)
- k. City of Los Angeles Bureau of Engineering Standard Plans

G. Required permits include, but are not limited to:

- a. "B" Permit (LABOE)
- b. "E" Permit (LABOE)
- c. Transportation Construction Traffic Management Committee Permit (TCTMC)
- d. Temporary Street Closure Permit (LABSS)

H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.

I. Location of Underground utilities – based on research and pot holing by the Design Builder.

J. Design/Builder shall obtain any other permits necessary to construct the 98C1A roadway package.

K. Design/Builder will be responsible for obtaining the revocable permit for the LID/Green Street system.

L. LAWA will provide the approved Public Tree Removal permit.

M. Design/Builder shall coordinate the design with the APM, ConRAC, Metro Crenshaw and ITFE projects.

- N. Design shall coordinate this design with other RUE design/build projects: 98th Street C1B and C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.
- O. Design/Builder completing plans and obtaining permits and removing miscellaneous street lights as indicated on the plans titled Manchester Square Light Pole Demolition Project.
- P. Design/Builder will be responsible for completing design plans and constructing the Aviation Boulevard street design gap between the LULEP and APM Design and Construction limits

1.2 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ.

1.3 REGULATORY REQUIREMENTS

Design guidelines and requirements for this project

- A. City of Los Angeles Complete Streets Design Guide
- B. City of Los Angeles Bureau of Engineering Street Design Manual Conform to requirements of the Project Requirements and the AHJ
- C. Los Angeles Department of Transportation Application and Design Guidelines for Striping, Channelization and Special Signing
- D. City of Los Angeles Department of Transportation Traffic Signal Design Guidelines
- E. City of Los Angeles Bureau of Street Lighting Design Standards and Guidelines
- F. California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition
- G. Caltrans Highway Design Manual (Latest Edition)
- H. Work Area Traffic Control Handbook (WATCH), latest revision, as adapted by the City of Los Angeles
- I. Board of Public Works and the Department of Transportation
- J. City of Los Angeles Department of Transportation Drafting Standards for Striping & Signal Plans.
- K. Conform to Project Requirements and the requirements of the AHJ.

1.4 QUALITY ASSURANCE

- A. Conform to requirements of the Project Requirements and the AHJ Requirements Quality Assurance and Quality Control requirements..

1.5 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall be in compliance with Conform to requirements of the Project Requirements and the AHJ requirements.

1.6 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.7 Scoping Documents

- A. The unapproved approximate 90% 98C1A design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design.

1.8 REFERENCE DOCUMENTS

- 34.5kva Aviation
- APM 90% Submittal
- CenturyLink Ductbank
- Communication Ductbank Aviation
- Metro - Crenshaw LRT Plans
- MOA LAWA LADWP
- Scattergood 1
- Scattergood 2
- SCG 2 - 30 inch Gas
- SCG 10 inch Gas
- Shoofly
- TREE REMOVAL PERMIT - 1-1312128231
- U21-Century Pipeline
- LULEP Plan Check Permit Log 01222020
- APM - LULEP Memorandum of Understanding regarding Infrastructure Interfaces on Aviation Boulevard 12 4 2018
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text
- executed MCA LAMP and AMC Station
- Cad Files

2.0 MATERIALS

- 2.1 Comply with requirements on the drawing designed by the Design Builder, approved B Permit drawings, the AHJ requirements.

EXECUTION

- 3.1 Complete design and obtain all required permits.
- 3.2 Schedule and construct work.
- 3.3 Obtain acceptance of completed work and close permit.

**END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH STREET – CIVIL
PACKAGE 1A**

Project 06.2

R20/R25-C1B

New 98th Street – Civil Package 1B

PROJECT CRITERIAL AND SCOPING MEMO FOR: R20/R25-C1B – NEW 98TH STREET CIVIL PACKAGE 1B

1. PROJECT DESCRIPTION:

New 98th Street consists of three roadway packages each under a different B permit number. The new 98th Street 98C1B package B-permit BR402985 connects to 98C1A package approximately 550 feet east of Aviation Boulevard and extends easterly to a matchline with the 98C2 package approximately 185 feet east of the Concourse Way intersection. The limits of the 98C1B package also extends north to the beginning of curb return (BCR) Design and Construction limit with the ConRAC project and south of the 98th Street Concourse Way intersection and south of the 98th Street intersection to Century Boulevard as depicted in the 98C1B package drawings. This package includes a new signalized intersection at Concourse Way and signalized intersection at Century Boulevard, Street Lighting, Signing and Striping, street drainage, Landscape and Irrigation, and Low Impact Development (LID)/Green Street improvements. The project scope also includes the removal of public and private trees, and removal of abandoned utilities and other improvements.

1.1 GENERAL REQUIREMENTS

- A. Work shall include completing the 98C1B design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design and other design started and required by the AHJ and obtaining permits and installing the improvements indicated on the drawings.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles County Flood Control District (LACFCD)
 - g. Major Transit And Transportation Construction Traffic Management Committee
 - h. Los Angeles Fire Department

- i. Los Angeles World Airports (LAWA)
 - j. South Coast Air Quality Management District
- F. Technical Specifications List
- The technical specifications and standard plans for this project include are not limited to:
- a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
 - b. Los Angeles County Department of Public Works, Additions and Amendments to the Standard Specifications for Public Works Construction (Graybook)
 - c. City of Los Angeles Department of Public Works, Standard Specification for
 - d. Public Works Construction, "Brown Book", additions and amendments to the
 - e. latest edition
 - f. City of Los Angeles Bureau of Engineering Specifications
 - g. Los Angeles Department of Transportation, Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals
 - h. City of Los Angeles Bureau of Street Lighting Special Specifications for the Construction of Street
 - i. Lighting Systems (Blue Book)
 - j. City of Los Angeles Board of Public Works, Enhanced Electrical Safety Policy (Red Book)
 - k. City of Los Angeles Bureau of Engineering Standard Plans
- G. Required permits include, but are not limited to:
- a. "B" Permit (LABOE)
 - b. "E" Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- I. Location of Underground utilities – based on research and pot holing by the Design Builder.
- J. Design/Builder shall obtain any other permits necessary to construct the 98C1B roadway package.
- K. Design/Builder will be responsible for obtaining the revocable permit for the LID/Green Street system.
- L. LAWA will provide the approved Public Tree Removal permit.

- M. Design/Builder shall coordinate the design with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- N. Design shall coordinate this design with other RUE design/build projects: 98th Street C1B and C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.

1.2 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ.

1.3 REGULATORY REQUIREMENTS

Design guidelines and requirements for this project

- A. City of Los Angeles Complete Streets Design Guide
- B. City of Los Angeles Bureau of Engineering Street Design Manual Conform to requirements of the Project Requirements and the AHJ
- C. Los Angeles Department of Transportation Application and Design Guidelines for Striping, Channelization and Special Signing
- D. City of Los Angeles Department of Transportation Traffic Signal Design Guidelines
- E. City of Los Angeles Bureau of Street Lighting Design Standards and Guidelines
- F. California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition
- G. Caltrans Highway Design Manual (Latest Edition)
- H. Work Area Traffic Control Handbook (WATCH), latest revision, as adapted by the City of Los Angeles
- I. Board of Public Works and the Department of Transportation
- J. City of Los Angeles Department of Transportation Drafting Standards for Striping & Signal Plans.
- K. Conform to Project Requirements and the requirements of the AHJ.

1.4 QUALITY ASSURANCE

- A. Conform to requirements of the Project Requirements and the AHJ Requirements Quality Assurance and Quality Control requirements..

1.5 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall be in compliance with Conform to requirements of the Project Requirements and the AHJ requirements.

1.6 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.7 Scoping Documents

- A. The unapproved approximate 90% 98C1B design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design.

1.8 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the drawing designed by the Design Builder, approved B Permit drawings, the AHJ requirements.

EXECUTION

- 3.1 Complete design and obtain all required permits.
3.2 Schedule and construct work.
3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH STREET – CIVIL PACKAGE 1B

Project 06.3

R20/R25-C2

New 98th Street – Civil Package 2

PROJECT CRITERIAL AND SCOPING MEMO FOR: R20/R25-C2 – NEW 98TH STREET CIVIL PACKAGE 2

1. PROJECT DESCRIPTION:

New 98th Street consists of three roadway packages each under a different B permit number. The new 98th Street 98C2 package B-permit BR402985 connects to 98C1B package approximately 185 feet east of Concourse Way and extends easterly to a matchline with the R-08 I-405 Ramp Widening project package approximately 150 feet west of the La Cienega intersection. The limits of the 98C2 package north limit is the ConRAC project. The Design/Builder will coordinate the northly curb, gutter, sidewalk and other improvements with the ConRAC project. This package will include an entrance into the ConRAC facility design by the ConRAC project. This project includes a Street Lighting, Signing and Striping, street drainage, Landscape and Irrigation, and Low Impact Development (LID)/Green Street improvements. The project scope also includes the removal of public and private trees, and removal of abandoned utilities and other improvements.

1.1 GENERAL REQUIREMENTS

- A. Work shall include completing the 98C2 design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design and other design started and required by the AHJ and obtaining permits and installing the improvements indicated on the drawings.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles County Flood Control District (LACFCD)
 - g. Major Transit And Transportation Construction Traffic Management Committee
 - h. Los Angeles Fire Department
 - i. Los Angeles World Airports (LAWA)
 - j. South Coast Air Quality Management District

F. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
 - b. Los Angeles County Department of Public Works, Additions and Amendments to the Standard Specifications for Public Works Construction (Graybook)
 - c. City of Los Angeles Department of Public Works, Standard Specification for
 - d. Public Works Construction, "Brown Book", additions and amendments to the
 - e. latest edition
 - f. City of Los Angeles Bureau of Engineering Specifications
 - g. Los Angeles Department of Transportation, Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals
 - h. City of Los Angeles Bureau of Street Lighting Special Specifications for the Construction of Street
 - i. Lighting Systems (Blue Book)
 - j. City of Los Angeles Board of Public Works, Enhanced Electrical Safety Policy (Red Book)
 - k. City of Los Angeles Bureau of Engineering Standard Plans
- G. Required permits include, but are not limited to:
- a. "B" Permit (LABOE)
 - b. "E" Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- I. Location of Underground utilities – based on research and pot holing by the Design Builder.
- J. Design/Builder shall obtain any other permits necessary to construct the 98C2 roadway package.
- K. Design/Builder will be responsible for obtaining the revocable permit for the LID/Green Street system.
- L. LAWA will provide the approved Public Tree Removal permit.
- M. Design/Builder shall coordinate the design with the APM, ConRAC, Metro Crenshaw and ITFE projects.

- N. Design shall coordinate this design with other RUE design/build projects: 98th Street C1A and C1B Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.

1.2 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ.

1.3 REGULATORY REQUIREMENTS

Design guidelines and requirements for this project

- A. City of Los Angeles Complete Streets Design Guide
- B. City of Los Angeles Bureau of Engineering Street Design Manual Conform to requirements of the Project Requirements and the AHJ
- C. Los Angeles Department of Transportation Application and Design Guidelines for Striping, Channelization and Special Signing
- D. City of Los Angeles Department of Transportation Traffic Signal Design Guidelines
- E. City of Los Angeles Bureau of Street Lighting Design Standards and Guidelines
- F. California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition
- G. Caltrans Highway Design Manual (Latest Edition)
- H. Work Area Traffic Control Handbook (WATCH), latest revision, as adapted by the City of Los Angeles
- I. Board of Public Works and the Department of Transportation
- J. City of Los Angeles Department of Transportation Drafting Standards for Striping & Signal Plans.
- K. Conform to Project Requirements and the requirements of the AHJ.

1.4 QUALITY ASSURANCE

- A. Conform to requirements of the Project Requirements and the AHJ Requirements Quality Assurance and Quality Control requirements..

1.5 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall be in compliance with Conform to requirements of the Project Requirements and the AHJ requirements.

1.6 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.7 Scoping Documents

- A. The unapproved approximate 90% 98C2 design package consisting of Roadway, Traffic Signal, Signing and Striping, Street Lighting, LID/Green Street, Retaining Walls, Landscape and Irrigation and Drainage design.

1.8 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the drawing designed by the Design Builder, approved B Permit drawings, the AHJ requirements.

EXECUTION

- 3.1 Complete design and obtain all required permits.
3.2 Schedule and construct work.
3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH STREET – CIVIL PACKAGE 2

Project 06.4

R20/R25-U1

New 98th Street - Sewer

PROJECT CRITERIA AND SCOPING MEMO FOR: R20/R25-U1-NEW 98TH STREET – SEWER

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Installation and permits for the 98th Street Sewer.
- B. The plans for the B permit will be approved with the stipulation the Design Builder will be responsible for shoring, traffic control, and other permits.

1.2 GENERAL REQUIREMENTS

- A. Work shall include obtaining permits and installing a sewer as shown on the approved B permit BR402950 drawings.
- B. Design/Builder shall obtain the express plumbing permit for the rerouting of the Shell Gas Station and the Denny's sewer into the new 8 inch sewer main as indicated on the in progress drawing.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and approved B permit drawings.
- D. All other appurtenances as required for a complete and operable system as required by the AHJ.
- E. Traffic Control – as required by the AHJ.
- F. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Los Angeles Fire Department
 - j. Los Angeles World Airports (LAWA)
 - k. South Coast Air Quality Management District

G. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for
 - c. Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- H. Required permits include, but are not limited to:
- a. “B” Permit (LABOE)
 - b. “E” Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- I. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- J. Location of Underground utilities – based on research and pot holing by the Design Builder.
- K. Design/Builder shall obtain any other permits necessary to construct the sewer line.
- L. LAWA will obtain any easements necessary for the construction of the sewer line.
- M. Designer shall coordinate this design with other RUE design/build projects: 98th Street C1A, C1B and C2 Roadway packages, I-405 Ramp Widening, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, and the 108 inch storm drain relocation.
- N. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.

1.3 SUBMITTALS

- A. Conform to requirements of the AHJ

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall compliance with the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.8 SCOPING DOCUMENTS

- A. The approved B permit sewer drawings.

1.9 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the approved B Permit sewer drawings the AHJ requirements.

EXECUTION

- 3.1 Complete design and obtain all required permits.
3.2 Schedule and construct work and required by the Project Requirements.
3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR 98TH STREET – SEWER

Project 06.5

R20/R25-U2

New 98th Street – Charter
Communication Undergrounding

**PROJECT CRITERIA AND SCOPING MEMO FOR: R20/R25-U2- CHARTER
COMMUNICATION CONDUIT UNDERGROUNDING**

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Below-Ground Conduit installation for Charter/Spectrum Communications U Permit 2019009535.
- B. The U permit will be transferred to the Design Builder who will be responsible for designing and submitting shoring, traffic control, and information necessary to complete the permit requirement. The Design Builder will also be responsible for any other permits necessary to construct the work.

1.2 GENERAL REQUIREMENTS

- A. Work shall include furnishing, installing, and any testing required, as indicated on the U permit drawings.
- B. Obtain any additional permits, such as shoring and traffic control, necessary for the construction of the Below-Ground Conduit installation.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- D. Materials – Material requirements are a minimum standard and are expected to meet or exceed the industry standards or as required by AHJ.
- E. Base Bedding – as indicated on the plans approved by the AHJ.
- F. Trench Backfilling – as indicated on the plans approved by the AHJ.
- G. Cast in Place Concrete - as indicated on the plans approved by the AHJ.
- H. Traffic Control – Refer to Project Requirements
- I. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)

- g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Spectrum-Charter Communications
 - j. Los Angeles Fire Department
 - k. Los Angeles World Airports (LAWA)
 - l. South Coast Air Quality Management District
- J. Technical Specifications List
The technical specifications and standard plans for this project include are not limited to:
 - a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for
 - c. Public Works Construction, "Brown Book", additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- K. Required permits include, but are not limited to:
 - a. "U" Permit (LABOE)
 - b. "E" Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- L. Location of Underground utilities – Refer to Project Requirements.
- M. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements.
- N. Removal of existing communication vault – Actual dimensions to be verified by Design/Builder via As-built drawings, Field verification, Potholing or any other means without damaging/destructive method. Prior to removal, Design/Builder to verify all communications lines/wires have been terminated and/or no longer in use. Refer to project requirements
- O. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- P. Designer shall coordinate this design with other RUE design/build projects: 98C1A, C1B C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.

1.3 SUBMITTALS

Submit for review any product data, construction procedures, removal procedures, shop drawings along with AHJ requirements. Refer to Project Requirements.

1.4 REGULATORY REQUIREMENTS

- A. Design/Builder to verify and conform to any regulatory requirements in advance. Provide a copy of any documentation requiring regulatory agency approval.

1.5 QUALITY ASSURANCE

- A. Include data on conduit materials, conduit fittings and accessories.
- B. Conduit should be free of debris once installed. Mandrel operation is typically required for conduit installation(s). Design/Builder to verify.

1.6 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.7 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the U permit drawings.

1.8 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

2.1 Comply with requirements on the U Permit drawings the AHJ requirements.

3.0 EXECUTION

3.1 Obtain the U permit and obtain all required permits.

3.2 Schedule and construct work and required by the Project Requirements.

3.3 Obtain acceptance of completed work from LAWA and AHJ and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR CHARTER COMMUNICATIONS UNDERGROUNDING

Project 06.6

R20/R25-U3

New 98th Street – 34.5Kv / 4.8 Kv
Duct Bank

PROJECT CRITERIA AND SCOPING MEMO FOR; R20/R25-U3- NEW 98TH STREET - 34.5 KV/4.8 KV DUCT BANK

DESCRIPTION

1.1 DESCRIPTION OF WORK

Design Builder shall complete the profile drawing to coordinate with the LADWP design, currently at 90%, and continue coordination until LADWP completes design; Design Builder shall obtain the U permit and any other necessary permits, shoring, traffic control, LIR necessary for the construction and installation of the 34.5/4.8kva ductbank. Work shall include coordination with LADWP and other AHJs.

1.2 GENERAL REQUIREMENTS

- A. Work shall include completion of design, furnishing, installing, and any testing required, as indicated on the AHJ approved drawings.
- B. Obtain any additional permits, such as shoring and traffic control, necessary for the construction of the LADWP 34.5kva/4.k kva installation.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- D. Materials – Material requirements as required by AHJ.
- E. Base Bedding – as indicated on the plans approved by the AHJ.
- F. Trench Backfilling – as indicated on the plans approved by the AHJ.
- G. Cast in Place Concrete - as indicated on the plans approved by the AHJ.
- H. Traffic Control – Refer to Project Requirements
- I. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee

- i. Spectrum-Charter Communications
 - j. Los Angeles Fire Department
 - k. Los Angeles World Airports (LAWA)
 - l. South Coast Air Quality Management District
- J. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

 - a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for
 - c. Public Works Construction, "Brown Book", additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- K. Required permits include, but are not limited to:
 - a. "B" Permit (LABOE)
 - b. "E" Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- L. Location of Underground utilities – Refer to Project Requirements.
- M. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements
- N. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- O. Designer shall coordinate this design with other RUE design/build projects: 98C1A, C1B C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 4/6 inch reclaimed water, Charter Communications ductbank, 98th Street sewer, and the 108 inch storm drain relocation.
- P. It is to be understood that LADWP will be the utility owner for this ductbank system. LADWP. LADWP is responsible for providing a horizontal alignment in which it will also be the responsibility of the Design/Builder to develop the ductbank profile as needed for their procurement and construction of this ductbank system and manhole. The Design/Builder is responsible for coordinating the horizontal and vertical alignment proposed and existing utilities and street improvement packages.
- Q. The design of the ductbank line will be coordinated with and reviewed by the utility owner, Los Angeles Department of Water and Power, Power Services (LADWP-PS), and reviewed by City of Los Angeles Bureau of Engineering.

- R. LADWP will provide a CAD file of their duct banks layouts shown in their future drawing. If a Change Directive is issued directing a revision to LADWP's duct bank layouts, then LADWP will provide a MicroStation or AutoCAD file of their revised duct bank layout.

1.3 SUBMITTALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards from LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings and the in progress drawings 34.5kva/4.8kva 98th Street Ductbank for guidance on specifications. Also coordinate the specifications with the AHJ approved drawings.

1.4 REGULATORY REQUIREMENTS

- A. Design/Builder to verify and conform to any regulatory requirements in advance. Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings and the in progress design documents..

1.5 QUALITY ASSURANCE

- A. Include data on conduit materials, conduit fittings and accessories.
B. Conduit should be free of debris once installed. Mandrel operation is typically required for conduit installation(s). Design/Builder to verify.

1.6 DELIVERY, STORAGE AND HANDLING

Follow manufacturers instructions for properly storing material. Delivery must comply with LIR/ASR and AHJ requirements.

1.7 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the approved U permit drawings.

1.8 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

2.1 Comply with requirements on the approved U Permit drawings the AHJ requirements.

3.0 EXECUTION

3.1 Complete design and obtain all required permits.

3.2 Schedule and construct work and required by the Project Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR LADWP 34.5 KVA/4.8 KVA DUCTBANK

Project 06.7

R20/R25-U4

New 98th Street – 12” Domestic
Water

PROJECT CRITERIA AND SCOPING MEMO FOR: R20/R25-U4 – NEW 98TH STREET- 12” DOMESTIC WATER

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Installation and permits for the 98th Street 12 inch water within new 98th Street and Aviation Boulevard.

1.2 GENERAL REQUIREMENTS

- A. Work shall include obtaining permits, shoring, traffic control, LIR to install a 12 inch waterline as shown on the approved LADWP permit FCDP2019000438 and LABOE U permit drawings.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Spectrum-Charter Communications
 - j. Los Angeles Fire Department
 - k. Los Angeles World Airports (LAWA)
 - l. South Coast Air Quality Management District
- F. Technical Specifications List
The technical specifications and standard plans for this project include are not limited to:
 - a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for

- c. Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- G. Required permits include, but are not limited to:
 - a. “B” Permit (LABOE)
 - b. “E” Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- I. Location of Underground utilities – based on research and pot holing by the Design Builder.
- J. Design/Builder shall obtain any other permits necessary to construct the 12 inch water line.
- K. Design shall coordinate this design with other RUE design/build projects: 98th Street C1A, C1B and C2 Roadway packages, I-405 Ramp Widening, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.
- L. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.

1.3 SUBMITTALS

- A. Conform to requirements of the AHJ

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall compliance with the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Follow manufacturer's instructions for properly storing material. Delivery must comply with LIR/ASR and AHJ requirements.

1.8 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the approved U permit drawings.

1.9 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the approved U Permit drawings the AHJ requirements.

3.0 EXECUTION

- 3.1 Complete design and obtain all required permits.
3.2 Schedule and construct work and required by the Project Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH STREET- 12" DOMESTIC WATER

Project 06.8

R20/R25-U5

New 98th Street – Recycled Water

PROJECT CRITERIA AND SCOPING MEMO FOR: R20/R25-U5 – NEW 98TH STREET- RECYCLED WATER

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Installation and permits for the 98th Street 4/6 inch reclaimed water within new 98th Street and Aviation Boulevard.

1.2 GENERAL REQUIREMENTS

- A. The design/builder shall complete design based on the current in progress design provided and obtain approval from LADWP, obtain a U permit and any permits, LIR, traffic control, shoring, as necessary for the construction of the 4/6 inch reclaimed water line.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Spectrum-Charter Communications
 - j. Los Angeles Fire Department
 - k. Los Angeles World Airports (LAWA)
 - l. South Coast Air Quality Management District
- F. Technical Specifications List
 - The technical specifications and standard plans for this project include are not limited to:
 - a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for

- c. Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- G. Required permits include, but are not limited to:
 - a. “B” Permit (LABOE)
 - b. “E” Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- I. Location of Underground utilities – based on research and pot holing by the Design Builder.
- J. Design shall coordinate this design with other RUE design/build projects: 98th Street C1A, C1B and C2 Roadway packages, I-405 Ramp Widening, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 98th Street sewer, and the 108 inch storm drain relocation.
- K. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.

1.3 SUBMITTALS

- A. Conform to requirements of the AHJ

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall compliance with the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Follow manufacturer's instructions for properly storing material. Delivery must comply with LIR/ASR and AHJ requirements.

1.8 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the approved U permit drawings.

1.9 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the approved U Permit drawings the AHJ requirements.

3.0 EXECUTION

- 3.1 Complete design and obtain all required permits.
- 3.2 Schedule and construct work and required by the Project Requirements.
- 3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH STREET – RECYCLED WATER

Project 06.9

R20/R25-U6

New 98th Street – 108” Storm Drain

PROJECT CRITERIA AND SCOPING MEMO FOR: R20/R25-U6 – NEW 98TH STREET -108” STORM DRAIN

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Completion and approval of design, obtain permits and Installation for the relocation of the Los Angeles County Flood Control District (LACFCD) 108 inch storm drain line.

1.2 GENERAL REQUIREMENTS

- A. Work shall include completing and obtaining approval of the in progress design and obtaining permits and installing the relocation of the LACFCD 108 inch storm drain to AHJ requirements as indicated on the drawings.
- B. LAWA shall be responsible for furnishing the street dedication or easement for the relocated storm drain line.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and approved permit drawings.
- D. All other appurtenances as required for a complete and operable system as required by the AHJ.
- E. Traffic Control – as required by the AHJ.
- F. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Bureau of Engineering (LABOE)
 - b. Los Angeles Department of Transportation (LADOT)
 - c. Los Angeles Bureau of Street Lighting (LABSL)
 - d. Los Angeles Department of Water and Power (LADWP)
 - e. Los Angeles Bureau of Street Services (LABSS)
 - f. Los Angeles Bureau of Sanitation (LABOS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Spectrum-Charter Communications
 - j. Los Angeles Fire Department
 - k. Los Angeles World Airports (LAWA)
 - l. South Coast Air Quality Management District
- G. Technical Specifications List
The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for
 - c. Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- H. Required permits include, but are not limited to:
- a. “U” Permit (LABOE)
 - b. “E” Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- I. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- J. Location of Underground utilities – based on research and pot holing by the Design Builder.
- K. Design/Builder shall obtain any other permits necessary to construct the storm drain line.
- L. Designer shall coordinate this design with other RUE design/build projects: 98th Street C1A, C1B and C2 Roadway packages, 98th Street 12” water, 34.5/4.8 Kva ductbank, Charter Communications ductbank, and 4/6 inch reclaimed water.
- M. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.

1.3 SUBMITTALS

- A. Conform to requirements of the AHJ

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall compliance with the Project and AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Delivery must comply with LIR/ASR and AHJ requirements.

1.8 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the permit drawings.

1.9 REFERENCE DOCUMENTS

- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the approved storm drain drawings and AHJ requirements.

EXECUTION

- 3.1 Complete design and obtain all required permits.
3.2 Schedule and construct work.
3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR 98th STREET – 108" STORM DRAIN

Project 07 R48

**VIP Tours Metro G Shuttle Temp
Road**

PROJECT CRITERIA AND SCOPING MEMO FOR: R48 – VIP TOURS/METRO G SHUTTLE TEMP ROAD

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Design and construct an access road as indicated on the scoping drawings.

1.2 GENERAL REQUIREMENTS

- A. Work shall include design and construct of the VIP Tours/Metro G Shuttle Temporary Road as indicated on the bridging documents dated 12/16/2019.
- B. Power for the entry and exit gates shall be from a service point obtained by the Design Builder.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- D. Design shall comply with the current City of Los Angeles Bureau of Engineering Street Design Manual and Standard Plans.
- E. Traffic Control – Refer to Project Requirements
- F. Authorities Having Jurisdiction (AHJ).
 - a. Los Angeles Department of Building and Safety (LADBS)
 - b. Los Angeles Metropolitan Transit Authority (LAMTA)
 - c. Los Angeles Bureau of Engineering (LABOE)
 - d. Los Angeles Department of Transportation (LADOT)
 - e. Los Angeles Bureau of Street Lighting (LABSL)
 - f. Los Angeles Department of Water and Power (LADWP)
 - g. Los Angeles Bureau of Street Services (LABSS)
 - h. Los Angeles Bureau of Sanitation (LABOS)
 - i. Los Angeles County Flood Control District (LACFCD)
 - j. Major Transit And Transportation Construction Traffic Management Committee
 - k. Los Angeles Fire Department
 - l. Los Angeles World Airports (LAWA)
 - m. South Coast Air Quality Management District
- G. Technical Specifications List
The technical specifications and standard plans for this project include are not limited to:
 - a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for

- c. Public Works Construction, "Brown Book", additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- H. Required permits include, but are not limited to:
 - a. Permits (LADBS)
 - b. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - c. Temporary Street Closure Permit (LABSS)
- I. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- J. Location of Underground utilities – Refer to Project Requirements.
- K. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements.
- L. Provide and install 150 feet of white water filled barrier on the north side of the temporary road from the Bellanca Road entrance to the shuttle exit gate.

1.3 SUBMITTALS

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Quality Assurance project requirements.

1.6 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall comply with the project requirements and the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Delivery, storage and handling shall comply with the project requirements and requirements of the AHJ.

1.8 REFERENCES

- A. Project bridging documents and plans.

1.9 MATERIALS

- A. Comply with requirements on the bridging documents and approved plans developed by the Design Builder.

3.0 EXECUTION

- 3.1 Complete design and obtain all required permits.
- 3.2 Schedule and construct work.
- 3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR VIP TOURS/METRO G SHUTTLE TEMPORARY ROAD

Project 08

R49

CCTV Employee Lot South

PROJECT CRITERIA AND SCOPING MEMO FOR: R49 – CCTV EMPLOYEE LOT SOUTH

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. The DESIGN BUILDER shall work with LAWA to advance the design, and complete the construction, for the 7 (seven) new CCTV (closed circuit television) cameras in and around LAWA's Employee Lot South parking lot and the adjacent Metro Bus station areas. The location of the work is between 96th Street and Westchester Parkway. The CCTV Internet Protocol (IP) cameras are of critical necessity to the security mission of the LAWA Airport Police Department (APD). Prior to responding to the RFP; the DESIGN BUILDER shall review the scoping documents and investigate the project site locations to understand the full extent of the proposed work.

1.2 REQUIREMENTS SPECIFIC TO EMPLOYEE LOT SOUTH METRO BUS CCTV

- A. Trench Backfilling – as required by Authority having jurisdiction.
- B. Cast in Place Concrete - as required by Authority having jurisdiction.
- C. DESIGN BUILDER shall cooperate with LAWA and APD to determine the exact location of Camera Poles and positioning of Cameras on the Camera Poles. The submittal of proposed camera locations will be determined as required by criteria shown in latest version of the LAWA DCH (Design and Construction Handbook).
- D. Traffic Control – Operations within the employee parking lot may not be disrupted. Construction activities to be conducted in a manner which will allow continuous operation of both the LAWA parking lot entry and exit plaza and the Metro Bus Station.
- E. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- F. Location of Underground utilities – Refer to Project Requirements.
- G. Pavement, Striping, Landscaping, Irrigation and all other restoration: Refer to Project Requirements

1.3 SUBMITTALS

- A. The DESIGN BUILDER is responsible for obtaining all approvals from the authorities having jurisdiction for all work, including but not limited to, traffic control plans and

electrical permits (where required). Partial list of project specific preconstruction submittal requirements and the AHJ's who review and approve the work:

- a. CCTV Camera Locations- (LAWA/ APD)
 - b. Traffic Control Plans -(LAWA Operations/ CALM)
 - c. LAMP Impact Requests (LIR) -(CALM)
 - d. Utility Shut Down Request (USR) -(CALM)
 - e. Electrical Permits -(LADBS)
 - f. Testing and Cutover Plans -(LAWA ITMG)
 - g. Irrigation/ Trees/ Plants (LADBS/ LABSS)
- B. Design Phase Submittals shall be provided for LAWA and other stakeholder and AHJ review and acceptance. Refer to PR1 and PR11 for additional design related submittal requirements.
1. The Preliminary Design (60%) Submittal shall display the following:
 - a. Development of the design details and specifications to a 60% level of completion.
 - b. A preliminary Construction Schedule, including time frame for procurement of long lead items including, but not limited to camera support poles.
 - c. Provide details, and outline specifications for all construction materials and equipment including the 3 types of CCTV cameras.
 - d. Provide camera pole base foundation details. When located in areas of vehicle traffic; the camera pole foundations shall be above grade concrete at a height and diameter sufficient to protect the pole from damage from vehicular traffic.
 - e. Provide camera pole heights from finish grade to top of pole.
 - f. Locations of the Electrical Panels and conduit routing for the power source(s) that will supply the power to the cameras. Note: All of Parking Lot C field switches in the LAWA IT Equipment cabinets are POE (Max 30 watts per port). Only one of these field switches (the switch in Enclosure 6) has cameras currently attached and they uses power injectors. The switch located within the Bus Depot is POE+ (Max 60 watts per port). The DESIGN BUILDER will need to provide both PoE injectors and power (a new 20 amp duplex power receptacle in the cabinet) for the new PTZ and Multi-sensor CCTV cameras.
 2. The Intermediate Design (90%) Submittal:
 - a. Advance the 60% Design and incorporate any modifications required by LAWA and AHJ 60% review comments.

3. The Final Design (100%) Submittal:
 - a. Advance the 90% Design and incorporate any modifications required by LAWA and AHJ 90% review comments.
 4. The Release for Construction Document (RFCD):
 - a. Advance the 100% Design and incorporate any modifications required by LAWA and AHJ 100% review comments.
 - b. Refer to Project Requirements.
- C. Construction Phase Submittals shall be provided for AHJ review and acceptance as required by each AHJ. The DESIGN BUILDER is required to provide copies of Construction phase submittals to LAWA. For LAWAs submittal requirements for construction related material and equipment submittals, including the required project specific Submittal Schedule, refer to PR 9.
- D. The DESIGN BUILDER is responsible for submitting, for AHJ review and acceptance, project specific Equipment Testing and cutover plan(s). The plans, one for LADOT and one for Caltrans, shall to be integrated into the DESIGN BUILDER's project construction schedule prior to NTP for construction.

1.4 INFORMATION TECHNOLOGY (IT) DESIGN & CONSTRUCTION REQUIREMENTS

- A. All work for this project will comply with the LAWA DCH (Design and Construction Handbook-Adopted: July 31, 2019 Version: 1.0 standards). The DCH contains LAWA ITMG (Information Technology Management Group) requirements, specifications that are specific to the LAWA CCTV - Video Surveillance Systems (VSS) .
- H. CCTV camera installation and testing requirements for LAWA projects require special consideration.
- a. The DESIGN BUILDER shall engage a CCTV subcontractor that has 2 plus years' experience installing CCTV systems that utilize Sony and Axis cameras, in a commercial environment. Subcontractors with those qualifications that are acceptable to LAWA ITMG include, but not limited to, the following:
 - i. Direct AV – Larry Frontino, lfrontino@directavla.com
 - ii. Birdi & Associates – Moninder Birdi, mbirdi@birdi-inc.com

1.5 QUALITY ASSURANCE

Refer to the LAWA DCH including, but not limited to, the DCH Guide Specifications for Quality Assurance requirements for the design elements/ construction materials shown on the scoping documents.

1.6 SCOPE DOCUMENTS

Attachment A- CCTV Employee Lot South (ELS) & Metro Bus -30% Submittal Plans/Specs dated December 13, 2029

1.7 REFERENCE DOCUMENTS

Attachment B- Cad Files -CCTV Employee Lot South (ELS) & Metro Bus

1.8 MATERIALS

A. All construction materials including new CCTV poles, cabinet upgrades, equipment, cables, conduit, etc. to meet AHJ requirements.

1.9 EXECUTION

A. Refer to Project Requirements and AHJ Regulatory Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR CCTV EMPLOYEE LOT SOUTH

Project 09 U24-C

Duct Bank Closure

PROJECT CRITERIA AND SCOPING MEMO FOR U24-C DUCT BANK CLOSURE

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. U24-C shall encompass duct bank installation along Arbor Vitae Street just north of the future Maintenance Drive intersection.
- B. This phase is a closure of LADWP's ductbank system as the previous contractor encountered an obstruction when constructing this duct bank. Completion of this duct bank was deferred to a later time through coordination with LAWA, LADWP, APM, and ConRAC.

1.2 GENERAL REQUIREMENTS

- A. It is to be understood that LADWP will be the utility owner for this ductbank system and construction shall meet their customer requirements and plan per LADWP drawing 17H5065.
- B. As-built drawing titled 'U24 Sheets C-105 - C-107' showing 15 feet of removal is to be used for reference only and it is the Design-Builder's imperative to examine the validity of the plan and profile and provide a full design in conformance with LADWP standards and specifications. The Design-Builder shall finish the design with all criteria needed to permit and construct approximately 43 LF of ductbank from stations 62+38 to 62+81.
- C. Reference LADWP transmittal letter titled LAWA- Response to Acceptance of Location of MH5796 for additional requirements from LADWP.
- D. Design/Builder shall pick up from where the previous contractor has terminated the U24 ductbank. Reference the corresponding scoping documents for more details on existing location and tie-in point to MH 5796.
- E. Work shall include installation of underground duct bank that includes 5" and 6" conduits, and developed per LADWP, local jurisdictional standards, and construction permit requirements as indicated in the Scoping Drawings, for a complete system which is fully integrated with the existing ductbank system on Arbor Vitae.
- F. Currently there is an existing energized duct bank running north-south approximately 5 feet west of Manhole 5796. This duct bank shall henceforth be dubbed, Neutrogena duct bank. The Neutrogena duct bank is currently an underground system that overheads to three utility poles in the alley south of the work limits and east of the M&SF facility.
- G. The Neutrogena duct bank is currently an obstruction for the U24 duct bank as it is obstructing the west face of MH 5796 where the ductbank would tie into. A portion of this

Neutrogena duct bank will need to be demolished by LADWP as mentioned in LADWP's agreement letter with LAWA. The Neutrogena duct bank can only be demoed upon the de-energization.

- H. Neutrogena is currently scheduled to be switched from an overhead feed to an underground system by the APM project. The Design/Builder will need to coordinate these efforts with the APM project and their schedule.
- I. Design/Builder will need to complete their work prior to the ConRAC project needing their power service. The Design/Builder will need to coordinate these efforts with the ConRAC project and their schedule.
- J. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- K. Asphalt restoration shall comply with BOE standards or replacement in kind, whichever the more stringent. Asphalt thickness may vary and shall be field verified and documented.
- L. Trench Backfilling – as required by Authority having jurisdiction or LADWP, whichever is more stringent
- M. Traffic Control – Refer to Project Requirements. Furthermore, it is anticipated that the APM project and the ConRAC project will be in the vicinity of the project limits on future Maintenance drive and Arbor Vitae St. It is the responsibility of the Design/Builder to coordinate the traffic control with the APM project, ConRAC Project, AMC project and LADOT to ensure construction operations do not interfere with each other.
- N. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- O. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- P. Location of Underground utilities – Refer to Project Requirements.
- Q. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements
- R. All communication with LADWP shall have LAWA copied with each correspondence.

1.3 PERMITTING

- A. The Design / Builder is responsible for obtaining all items to permit the design which is not limited to traffic control, shoring, traffic plates and LIR. It is the responsibility of the Design/Builder to procure the shoring drawings and traffic control plans and all necessary documentation for this project's U-Permit.

1.4 SUBMITTALS

Refer to Project Requirements.

1.5 REGULATORY REQUIREMENTS

Refer to Project Requirements.

1.6 QUALITY ASSURANCE

Refer to Project Requirements.

1.7 FIELD QUALITY ASSURANCE FOR UNDERGROUND CONDUIT

Refer to Project Requirements. Final conduit acceptance will be at the discretion of LADWP's inspector.

1.8 DELIVERY, STORAGE AND HANDLING

Refer to Project Requirements.

1.9 MATERIALS

Refer to Project Requirements.

1.10 CONTRACT DOCUMENTS

- A. LADWP Final Plan 17H5065
- B. LAWA - LADWP Response to Acceptance of Location of MH5796
- C. DWP Notes Page

Other:

LULEP U27 34.5KV & U30 4.8KV Duct Bank Reference Technical Specifications and Applicable Standards

1.11 SCOPING DOCUMENTS

- D. U24 Sheets C-105 - C-107
- E. U24 Revised Dwg C-101-A

1.12 REFERENCES

- F. 13h8010_Foremans Print

END OF PROJECT CRITERIA AND SCOPING MEMO FOR U24-C DUCT BANK CLOSURE

Project 10 U27

34.5Kv Duct Bank

PROJECT CRITERIA AND SCOPING MEMO FOR U27 – 34.5KV DUCT BANK

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. U27 shall encompass duct bank installation along 96th Street from new Jetway Boulevard to just south of the Vicksburg Ave / 96th Street intersection.
- B. This phase is a continuation of LADWP's effort to provide power from the future RS-X substation and power system.

1.2 GENERAL REQUIREMENTS

- A. It is to be understood that LADWP will be the utility owner for this duct bank system and construction shall meet their customer requirements and plan per LADWP drawing 18H5107.
- B. Work shall include installation of underground duct bank and manhole that include 5" and 6" conduits, and developed per LADWP, local jurisdictional standards, and construction permit requirements as indicated in the Scoping Drawings, for a complete system which is fully integrated with the existing duct bank system on Jetway Blvd and coordinated with the future U34 duct bank system to be designed and constructed by Design/Builder. Reference Project Criteria and Scoping Memo for the U34 RS-X Gap at Vicksburg project.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- D. U27 electrical duct bank is a continuation of the U24 - 34.5kV duct bank project, which runs down Jetway Boulevard, and will pick off where the 34.5kV duct bank dead-ended near the LADBS property lines. The U24 duct bank is not expected to be energized or have cable pulled through until the RS-X substation is built.
- E. This U27 duct bank system shares the same design plan set with the U30 Phase 2 duct bank. Reference Project Criteria and Scoping Memo for the U30 Phase 2 - 4.8kV duct bank system.
- F. There is an unknown 1" steel pipe in conflict with Manhole 6150. It is the responsibility of the Design/Builder to verify its service and identify utility owner and relocate if necessary.
- G. Asphalt restoration shall comply with BOE standards or replacement in kind, whichever the more stringent. Asphalt thickness may vary and shall be field verified and documented. There may be additional pavement restoration required by AHJ, reference

exhibit for 'U27 & U30-P2 Potential Additional Pavement Work' for limits that may be required outside of LABOE standard plan S-477-1 due to the extent of the existing road conditions out on 96th St and Vicksburg Avenue. It is up to the Design Builder to coordinate this with LABOE and their Contract Administration division for the full extent of the asphalt restoration work outside of the trench limits.

- H. Trench Backfilling – as required by Authority having jurisdiction or LADWP, whichever is more stringent
- I. Traffic Control – Refer to Project Requirements. Furthermore, it is anticipated that the APM project will be in the vicinity of the project limits at the intersection of Jetway Blvd and 96th Street. It is the responsibility of the Design/Builder to coordinate the traffic control with the APM project and LADOT to ensure construction operations and individual project traffic controls do not interfere with each other.
- J. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- A. Reference Potholing Final Report for U27 & U30-P2 as potholing for this project has been performed by a previous developer. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- K. Location of Underground utilities – Refer to Project Requirements.
- L. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements
- M. All communication with LADWP shall have LAWA copied with each correspondence.

1.3 PERMITTING

- A. It is anticipated that the U27 & U30-P2 duct banks will use LADWP plan set 18H5107 as the permitting set and the LULEP U27 34.5KV & U30 4.8KV Duct Bank Drawings as a supplemental set during construction as it is a mirror of LADWP drawing 18H5107 with added profiles and information necessary for the Design / Builder to follow.
- B. See email confirmation from LABOE under references for the U30-P2 & U27 projects. The Design / Builder is responsible for obtaining all items to permit the design which is not limited to the submittal of the design plans, traffic control, shoring, traffic plates and LIR.

- C. It is the responsibility of the Design/Builder to procure the shoring drawings and traffic control plans and all necessary documentation for this project's U-Permit.

1.4 SUBMITTALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

1.5 REGULATORY REQUIREMENTS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

1.6 QUALITY ASSURANCE

- A. Include data on conduit materials, conduit fittings and accessories.
- B. Conduit should be free of debris once installed. Mandrel operation is typically required for conduit installation(s). Design/Builder to verify.
- C. Refer to Project Requirements.

1.7 FIELD QUALITY ASSURANCE FOR UNDERGROUND CONDUIT

Refer to Project Requirements. Final conduit acceptance will be at the discretion of LADWP's inspector.

1.8 DELIVERY, STORAGE AND HANDLING

Refer to Project Requirements. Follow manufacturer's instructions for properly storing material. Delivery must comply with LIR/ASR and AHJ requirements.

1.9 CONTRACT DOCUMENTS

- A. 18H5107 (Final LADWP Plans 2-25-19)
- B. LULEP U27 34.5KV & U30 4.8KV Duct Bank Reference Drawings
- C. LULEP U27 34.5KV & U30 4.8KV Duct Bank Technical Specifications and Applicable Standards
- D. Potholing Final Report for U27 & U30-P2
- E. TCP - U27 & U30-P2
- F. Preliminary Geotechnical Report for U27 & U30P-2

1.10 REFERENCES

- G. U27 & U30-P2 Potential Additional Pavement Work
- H. LABOE Email Confirmation

MATERIALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR 34.5KV DUCT BANK

Project 11

U30-P2

4.8Kv Duct Bank (Phase 2)

PROJECT CRITERIA AND SCOPING MEMO FOR 4.8KV DUCT BANK (PHASE TWO)

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. U30-P2 (Phase 2) shall encompass duct bank installation along 96th Street from new Jetway Boulevard to just south of the Vicksburg Ave / 96th Street intersection.
- B. This phase is a continuation of LADWP's effort to provide permanent power to Jetway Blvd.

1.2 GENERAL REQUIREMENTS

- A. It is to be understood that LADWP will be the utility owner for this duct bank system and construction shall meet their customer requirements and plan per LADWP drawing 18H5107.
- B. Work shall include installation of underground duct bank and manhole that include 4" and 5" conduits, and developed per LADWP, local jurisdictional standards, and construction permit requirements as indicated in the Scoping Drawings, for a complete system which is fully integrated with the existing duct bank system on Jetway Blvd and terminates at the existing Manhole on the corner of Vicksburg and 96th St intersection.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- D. U30 electrical duct bank is a continuation of the U30 - 4.8kV duct bank project, which runs down Jetway Boulevard, and will pick off where the 4.8kV duct bank dead-ended near the LADBS property lines.
- E. This U30 duct bank system shares the same design plan set with the U27 duct bank. Reference Project Criteria and Scoping Memo for the U27 - 34.5kV duct bank system.
- F. Asphalt restoration shall comply with BOE standards or replacement in kind, whichever the more stringent. Asphalt thickness may vary and shall be field verified and documented. There may be additional pavement restoration required by AHJ, reference exhibit for 'U27 & U30-P2 Potential Additional Pavement Work' for limits that may be required outside of LABOE standard plan S-477-1 due to the extent of the existing road conditions out on 96th St and Vicksburg Avenue. It is up to the Design Builder to coordinate this with LABOE and their Contract Administration division for the full extent of the asphalt restoration work outside of the trench limits.
- G. Trench Backfilling – as required by Authority having jurisdiction or LADWP, whichever is more stringent

- H. Traffic Control – Refer to Project Requirements. Furthermore, it is anticipated that the APM project will be in the vicinity of the project limits at the intersection of Jetway Blvd and 96th Street. It is the responsibility of the Design/Builder to coordinate the traffic control with the APM project and LADOT to ensure construction operations and individual project traffic controls do not interfere with each other.
- I. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- J. Reference Potholing Final Report for U27 & U30-P2 as potholing for this project has been performed by a previous developer. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- K. Location of Underground utilities – Refer to Project Requirements.
- L. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements
- M. It is to be understood that LADWP will be the utility owner for this duct bank system and construction shall meet their customer requirements and plan per LADWP drawing 18H5107.
- N. All communication with LADWP shall have LAWA copied with each correspondence.

1.3 PERMITTING

- A. It is anticipated that the U27 & U30-P2 duct banks will use LADWP plan set 18H5107 as the permitting set and the LULEP U27 34.5KV & U30 4.8KV Duct Bank Drawings as a supplemental set during construction as it is a mirror of LADWP drawing 18H5107 with added profiles and information necessary for the Design / Builder to follow.
- B. See email confirmation from LABOE under references for the U30-P2 & U27 projects. The Design / Builder is responsible for obtaining all items to permit the design which is not limited to the submittal of the design plans, traffic control, shoring, traffic plates and LIR.
- C. It is the responsibility of the Design/Builder to procure the shoring drawings and traffic control plans and all necessary documentation for this project's U-Permit.

1.4 SUBMITTALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

1.5 REGULATORY REQUIREMENTS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

1.6 QUALITY ASSURANCE

- A. Include data on conduit materials, conduit fittings and accessories.
- B. Conduit should be free of debris once installed. Mandrel operation is typically required for conduit installation(s). Design/Builder to verify.
- C. Refer to Project Requirements.

1.7 FIELD QUALITY ASSURANCE FOR UNDERGROUND CONDUIT

Refer to Project Requirements. Final conduit acceptance will be at the discretion of LADWP's inspector.

1.8 DELIVERY, STORAGE AND HANDLING

Refer to Project Requirements. Follow manufacturer's instructions for properly storing material. Delivery must comply with LIR/ASR and AHJ requirements.

1.9 CONTRACT DOCUMENTS

- A. 18H5107 (Final LADWP Plans 2-25-19)
- B. LULEP U27 34.5KV & U30 4.8KV Duct Bank Reference Drawings
- C. LULEP U27 34.5KV & U30 4.8KV Duct Bank Technical Specifications and Applicable Standards
- D. Potholing Final Report for U27 & U30-P2
- E. TCP - U27 & U30-P2
- F. Preliminary Geotechnical Report for U27 & U30P-2

1.10 REFERENCES

- G. U27 & U30-P2 Potential Additional Pavement Work
- H. LABOE Email Confirmation

MATERIALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

**END OF PROJECT CRITERIA AND SCOPING MEMO FOR 4.8KV DUCT BANK
(PHASE TWO)**

Project 12

U33

City of Inglewood Fiber Relocation

PROJECT CRITERIA AND SCOPING MEMO FOR: U33- CITY OF INGLEWOOD FIBER RELOCATION

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Relocation of a fiber optic ductbank from the westside to the eastside of La Cienega Boulevard between Arbor Vitae Boulevard and Century Boulevard.

1.2 GENERAL REQUIREMENTS

- A. Work shall include furnishing, installing, and testing a replacement of the existing fiber optic ductbank between Arbor Vitae Boulevard and Century Boulevard as indicated on the 30% City of Inglewood Fiber Relocation plans dated December 12, 2019. The design for the relocation of the City of Inglewood's Fiber Network shall comply with City of Inglewood standards and obtain City approval.
- B. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- C. All other appurtenances as required for a complete and operable system as required by the AHJ.
- D. Traffic Control – as required by the AHJ.
- E. Authorities Having Jurisdiction (AHJ).
 - a. City of Inglewood
 - b. Los Angeles Bureau of Engineering (LABOE)
 - c. Los Angeles Department of Transportation (LADOT)
 - d. Los Angeles Bureau of Street Lighting (LABSL)
 - e. Los Angeles Department of Water and Power (LADWP)
 - f. Los Angeles Bureau of Street Services (LABSS)
 - g. Los Angeles Bureau of Sanitation (LABOS)
 - h. Los Angeles County Flood Control District (LACFCD)
 - i. Major Transit And Transportation Construction Traffic Management Committee
 - j. Spectrum-Charter Communications
 - k. Los Angeles Fire Department
 - l. Los Angeles World Airports (LAWA)
 - m. South Coast Air Quality Management District

F. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, “Green Book”, latest edition and supplements
 - b. City of Los Angeles Department of Public Works, Standard Specification for
 - c. Public Works Construction, “Brown Book”, additions and amendments to the latest edition
 - d. City of Los Angeles Bureau of Engineering Specifications
 - e. City of Los Angeles Bureau of Engineering Standard Plans
- G. Required permits include, but are not limited to:
- a. City of Inglewood Public Works Permit
 - b. “U” Permit (LABOE)
 - c. “E” Permit (LABOE)
 - d. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - e. Temporary Street Closure Permit (LABSS)
- H. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- I. Location of Underground utilities – based on research and pot holing by the Design Builder.
- J. Pavement, Striping, Landscaping and all other restoration required by the AHJ.
- K. Design/Builder shall coordinate the design and construction with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- L. Design shall coordinate this design with other RUE design/build projects: 98C1A, 98C1B and C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank and Charter Communications ductbank.

1.3 SUBMITTALS

1.4 REGULATORY REQUIREMENTS

- A. Conform to requirements of the AHJ

1.5 QUALITY ASSURANCE

- A. Comply with the AHJ and Project Requirements Quality Assurance and Quality Control requirements.

1.6 FIELD QUALITY ASSURANCE FOR PIPING

- A. Field Quality Assurance shall compliance with the AHJ requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store valves in shipping containers with labeling in place.

1.8 Scoping Drawings

- A. Obtain permits for shoring, traffic control, LIR as necessary for the construction of the approved U permit drawings.

1.9 REFERENCE DOCUMENTS

- ITS-Phase-2-FiberOpticPlan-As-Builts
- MOA LAWA LADWP*
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- City (BOE, DOT, BSS, BSL, BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- ConRAC 60% 1-17-2020 submittal B Permit*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

- 2.1 Comply with requirements on the bridging documents and as required by the AHJ and specified in the City of Inglewood Fiber Relocation 30% bridging plans and attachments.

3.0 EXECUTION

- 3.1 Complete design and obtain all required permits.
- 3.2 Schedule and construct work.
- 3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR CITY OF INGLEWOOD FIBER RELOCATION

Project 13 U34

RS-X Gap at Vicksburg Duct Bank

PROJECT CRITERIA AND SCOPING MEMO FOR: U34 – RS-X GAP AT VICKSBURG DUCT BANK

DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. U34 shall encompass duct bank installation along Vicksburg Ave from just south of 96th Street to the 98th Street intersection.
- B. This phase is a continuation of LADWP's effort to provide power from the future RS-X substation and power system.

1.2 GENERAL REQUIREMENTS

- A. It is to be understood that LADWP will be the utility owner for this ductbank system. LADWP has yet to issue a preliminary drawing for this work, however it is LAWA's understanding that the ductbank system and manhole will generally be as shown in the corresponding bridging document. LADWP will need to provide a horizontal alignment in which it will also be the responsibility of the Design/Builder to develop the ductbank profile as needed for their procurement and construction of this ductbank system and manhole(s).
- B. The design of the ductbank line will be coordinated with and reviewed by the utility owner, Los Angeles Department of Water and Power, Power Services (LADWP-PS), and reviewed by City of Los Angeles Bureau of Engineering.
- C. LADWP will provide a CAD file of their duct banks layouts shown in their future drawing. If a Change Directive is issued directing a revision to LADWP's U34 duct bank layouts, then LADWP will provide a MicroStation or AutoCAD file of their revised duct bank layout.
- D. Work is anticipated to include installation of underground duct bank and manhole that include 5" and 6" conduits, and developed per LADWP, local jurisdictional standards, and construction permit requirements as indicated in the Scoping Drawings, for a complete system which is fully integrated with the existing ductbank system on 96th St/Vicksburg intersection. This ductbank is also anticipated to break into and tie into the existing live ductbank system on 98th Street. The design / builder is expected to stop construction at approximately 5' – 15' of the existing live duct bank system on 98th street in which LADWP will finish the demolition, tie-in and connection to their live system. LADWP may change this design but at the time of RFP proposal, the general concept and need to complete this system is as indicated on the U34 RS-X GAP AT VICKSBURG DUCTBANK EXHIBIT bridging document.

- E. As this project is part of the LADWP future RS-X system for LAWA, this ductbank will need to be completed and signed off by LADWP before the commissioning of the future RS-X substation project. It is the full responsibility of the Design/Builder to coordinate with the RS-X project and ensure this U34 project does not delay or impede RS-X substation and RS-X system commissioning.
- F. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- G. U34 electrical duct bank is a continuation of the U27 - 34.5kV ductbank project, which runs down south of the Vicksburg/96th Street intersection off where the 34.5kV duct bank dead-ended.
- H. Reference Project Criteria and Scoping Memo for the U27 - 34.5kV ductbank system.
- I. Asphalt restoration shall comply with BOE standards or replacement in kind, whichever the more stringent. Asphalt thickness may vary and shall be field verified and documented.
- J. Trench Backfilling – as required by Authority having jurisdiction or LADWP, whichever is more stringent
- K. Recycling, Sustainability and other Environmental Requirements – Refer to Project Requirements
- L. It is the responsibility to verify all utilities shown on the U34 RS-X GAP AT VICKSBURG DUCTBANK EXHIBIT. LAWA does not guarantee the accurateness or precision of the utilities shown on this exhibit and the Design/Builder will need to perform their own utility investigations. The utilities shown on this exhibit are merely to advise the possibility of what is currently known to LAWA and the design/builder should not take them as full or final. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- M. Location of Underground utilities – Refer to Project Requirements.
- N. Pavement, Striping, Landscaping and all other restoration: Refer to Project Requirements
- O. All communication with LADWP shall have LAWA copied with each correspondence.

1.3 SUBMITTALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings. Refer to Project Requirements for general submittal requirements.

1.4 REGULATORY REQUIREMENTS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

1.5 QUALITY ASSURANCE

Refer to Project Requirements.

1.6 FIELD QUALITY ASSURANCE FOR UNDERGROUND CONDUIT

Refer to Project Requirements. Final conduit acceptance will be at the discretion of LADWP's inspector.

1.7 DELIVERY, STORAGE AND HANDLING

Refer to Project Requirements.

1.8 REFERENCES

- A. Proposed Conduit - Vicksburg Between 96th & 98th St - LAWA Exhibit
- B. DWP Notes Page
- C. LADWP 18H8027 - Vicksburg btw 96th 98th
- D. LADWP 18H2136 - DS-111 - VKS PED A - CUP MSC Phase IV
- E. Preliminary RS X Conduit Path

Also Reference:

LULEP U27 34.5KV & U30 4.8KV Duct Bank Reference Drawings
LULEP U27 34.5KV & U30 4.8KV Duct Bank Technical Specifications and Applicable Standards

MATERIALS

Refer to Project Requirements and the Technical Specifications and Applicable Standards for LULEP U27 34.5kV & U30 4.8 kV Duct Banks bridging document drawings.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR RS-X GAP AT VICKSBURG DUCT BANK

Project 14

CTA01

Recycled Water Extension Project

PROJECT CRITERIA AND SCOPING MEMO FOR RECYCLED WATER EXTENSION PROJECT

1 - DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Below-Ground Recycled Water Piping in the Central Terminal Area (CTA)
- B. Above-Ground Recycled Water piping and related electrical/data connections at Central Utility Plant (CUP) of LAX
- C. Above-ground Plumbing of Recycled Water System inside Tom Bradley International Terminal (TBIT) and related data/electrical connections
- D. The entire Recycled Water Piping Project, including below-ground piping and above-ground Plumbing at CUP and TBIT, may hereafter be referred to as **RWP**.

1.2 REQUIREMENTS SPECIFIC RECYCLED WATER PIPING

- A. Work shall include furnishing, installing, testing and joint commissioning of Recycled Water Piping, as shown in the Scoping Drawings and described in this Memo, for a complete and operable system which is fully integrated with the future Hyperion Plan Recycled Water Supply.
- B. The scope, as shown in Scoping Drawings and as described in this memo, includes, but is not limited to, :
 - 1. CTA scope in the vicinity of Terminal 3 - Upsizing of existing below-ground Recycled Water line north of Parking Structure 3 and running a lateral line to Terminal 3. Refer below for more detail.
 - 2. CTA Vault 2 scope. Refer below for more detail.
 - 3. CTA Scope on Center Way South and Branches towards T1.5 and T6 respectively - Installation of below-ground 12 inch recycled water piping that will branch to Terminal 1.5 and Terminal 6 respectively. Refer below for more detail.
 - 4. CTA CUP scope - Above-ground Plumbing, Electrical and Data work at Central Utility Plant (CUP). Refer below for more detail.
 - 5. TBIT scope - Plumbing Modifications, including Storage Tanks, Pumps and piping work, inside Tom Bradley International Terminal (TBIT). Refer below for more detail.
- C. The scope shall **NOT** include the following (even if it is shown on the Scoping Drawings):

1. Any work to the west of Tom Bradley International Terminal, including work on World Way West and Pershing Drive.
 2. Specifically, the scopes shown on Scoping Drawings UT201, UT202, UT203, UT204, UT205 and UT206 are **NOT** included.
- D. CTA scope in the vicinity of Terminal 3 – Refer to Sheet UT211 of Scoping Drawings and Scoping Drawing for RW extension to Terminal 3.
1. The existing 4" Recycled Water piping between the 2 ends points shown on UT211 shall be upsized to a 6 inch pipe.
 2. Lateral to Terminal 3 – Refer to Scoping Drawing for RW Extension to Terminal 3. Design Builder shall extend the 6 inch pipe across World Way North and all the way to the face of Terminal 3 as shown in the referred Scoping Drawing. This Lateral pipe shall be below ground and NOT be in the Utility Tunnel. Design Builder shall connect to an existing below-ground Recycled Water stub at the face of Terminal 3. LAWA will provide the coordinates of the stub to the Design Builder at a later date. Prior to proposal, Design Builder shall field verify the length of the lateral required and also account for utility crossings and no extra payments will be made for any scope related to this Lateral connection.
- E. CTA Vault 2 scope - Refer to Sheet UT401
1. Design Builder shall design and install 4" valve on the 4" branch of the Recycled Water line.
 2. Design Builder shall design and install steel stairs with anchorage to the vault floor.
- F. CTA Scope on Center Way South and Branches towards T1.5 and T6 respectively – Install 12 inch PVC Recycled Water piping. Refer to Sheets UT221, UT222, UT223 and UT231 of Scoping Drawings.
1. CTA Connection in the proximity of Vault 11 – Recycled Water piping shall be connected at one end to the available Recycled Water pipe which is currently terminated in the vicinity of Vault 11 as shown in Sheet UT221 of Scoping Drawings.
 2. Shared Trench with New Hydronic Lines - Recycled Water piping placement in the Central Terminal Area to the east of CUP and as headed to Terminal 1.5 shall be in the same trench as the Hydronic piping. The design and construction of such Hydronic Piping, as scoped out in other parts of the RFP/contract, shall be in conjunction with the Recycled Water piping design and construction. Refer to Scoping Drawings UT221, UT222 and UT223.
 3. Branch to Terminal 1.5 and Connection at existing stub out – One Branch of RWP piping shall be connected to the existing Recycled Water stub out outside

Terminal 1.5. Refer to the Scoping Drawing UT223 for the coordinates of the stub out.

4. Clearance from Survey Monument outside the Theme Building - Design Builder shall ensure that the extremity of the Utility Trench that will contain the new Hydronic Lines as well as the Recycled Water Line, including any Trench over-excavation, does not encroach within the shortest distance between the Survey Monument and the edge of the sidewalk farthest from the Survey Monument. Refer to Scoping Drawing titled SK-2.
 5. Branch towards Terminal 6 – Another Branch of Recycled Water will be installed towards Terminal 6 as shown on Scoping Drawing UT231. This branch shall be terminated at the End point as shown on the Scoping Drawing UT231.
- G. CTA CUP scope – Install seamless Stainless Pipe around the CUP Cooling Tower as shown on Scoping Drawing P-151 and related sheets. The requirements as shown on the Scoping Drawings are minimum requirements and the Design Builder shall note the following:
1. Design Builder's scope includes provision of, testing and commissioning of Smart Meter, Isolation valves, motorized valve, flow meter and any other accessories/appurtenances, as shown on, but may not be limited to, Scoping Drawings. Design Builder shall obtain prior approval from LAWA (specifically LAWA's Central Utility Plant) before procuring and installing these devices.
 2. Design Builder shall incorporate the Bypass, as shown on the Scoping Drawings, into the Design.
 3. The scope includes Electrical and Communications work as shown on the Scoping Drawings. The Design Builder shall be required to coordinate closely with LAWA while connecting and testing for the communications. Refer to Sheet P151 of Scoping Drawings.
 4. Structural Connection Details are for reference only. Design Builder's EOR shall be responsible for design and approval of connection details.
- H. TBIT Scope – Plumbing Modifications, including new Storage Tanks, Pumps and piping work, inside Tom Bradley International Terminal (TBIT). Refer to Riser Diagram in Sheet P601 of the Scoping Drawings and other Drawings as called out below. Refer to as-built Electrical and Plumbing Drawings for TBIT.
1. Connect New Recycled Water Line to the source inside the Building. Refer to Scoping Drawings P434, P433 and P432. Cut and cap the existing Recycled Water feeder pipe as shown on P432. Remove the existing pipe as shown in P432.
 2. Design Builder shall design the Recycled Water System with following minimum requirements:
 - a. System Demand and Design - The number of restrooms, as shown on the Riser Diagram in Sheet P601, shall be considered the minimum number of restrooms that are to be connected to the Recycled Water System. Regardless of what is shown on the Riser Diagram or other Scoping

Drawings, the Design Builder shall ensure that all the Restrooms which have a Recycled Water stub out available in their respective chases, are connected to the Recycled Water System. In the pre-Proposal stage and particularly during the pre-proposal walk, it is incumbent on the Design Builder to field verify the presence of Recycled Water stub outs in the Plumbing chases of all the restrooms in TBIT. Design Builder shall then calculate the demand and design the Recycled Water system accordingly. Also refer to As Built Drawings for TBIT for System Design. No extra payment shall be made for designing a system for system demand that is in excess of what is shown in the Scoping Drawings.

- b. The Storage Tank and Pump sizing and selection shall be in consideration of System demand.
3. Storage Tanks and Pumps shall be placed in Room 3N3-04. Scoping Drawing P504 is only a schematic and the actual number of Tanks shall be dictated by the actual system demand/design and architectural considerations. Design Builder shall field verify, prior to proposal, the geometric conditions of Room 3N3-04, including but not limited to the door opening size and the room dimensions. If needed, Design Builder shall design and construct a temporary or permanent opening for Room 3N3-04. No extra payments will be made for temporary or permanent geometric alterations of the room.
4. Pumps shall be VFD (variable frequency drive) pumps and shall be in a Multiplex configuration with a redundant Pump capacity. Scoping Drawing P504 is only a schematic and the Design Builder shall base the configuration, sizes and other selections for the pump on the System Demand and Design.
5. Design Builder shall connect the existing Recycled Water Pipe Stub to existing Domestic Water Header in the Plumbing Chase. Design Builder shall modify the location of Water Hammer as shown in typical sequence on Sheet P501. Design Builder shall field verify the location of Recycled Water stub out during the pre-proposal walk. **Scope of work includes connections in every restroom in TBIT which has a recycled water stub out available.** In the pre-Proposal stage and particularly during the pre-proposal walk, it is incumbent on the Design Builder to field verify the presence of Recycled Water stub outs in the Plumbing chases of all the restrooms in TBIT. **Therefore, scope of work is not limited to restrooms as shown on the Scoping Drawings.**
6. Design Builder shall shutoff, cut and cap the Domestic water pipe as called out for in the typical Sequence as described on Scoping Drawing P501. Design Builder shall ensure that Domestic water is capped in a location which is acceptable to Authority Having Jurisdiction in terms of separation from the Recycled Water piping.
7. Design Builder shall supply Domestic Water to the Storage Tanks and provide an 'air gap' where water drops into the Storage tank/tanks. Refer to Scoping Drawing P431 for suggested routing of Domestic Water piping. Design Builder shall field verify prior to proposal the Point of Connection to existing Domestic

Water supply and no extra payments related to bringing and connecting to Domestic Water.

8. Electrical connections for new pumps, control panels and any other equipment related to Recycled Water system that electrical supply shall be provided from an Electrical room on Level 3 of TBIT. This Electrical Room (labeled 3N3-02 on attached As Builts) has power available on existing 480v and 208v panels. The electrical power shall be routed from these panels to Room 3N3-17 in a way which is code and DCH compliant.
 9. Design Builder shall incorporate an automatic switch mechanism wherein water supply automatically changes from Recycled Water to Domestic Water supply in case of stoppage of Recycled Water supply. Design Builder shall accordingly incorporate all automatic Controls, valves and other required equipment for the aforementioned automatic switch.
 10. The Design shall incorporate automatic water supply shutoff so that an overflow is prevented.
 11. Design Builder shall field verify prior to proposal the presence of floor drain in room 3N4-04. In case there is no floor drain, Design Builder shall construct a floor drain and restore the floor to original condition. No extra payments will be made for this scope.
- I. Minimum Separation from Domestic Water Piping in the CTA – Design Builder shall ensure that a minimum separation, as required by Authorities Having Jurisdiction, is maintained between RWP and the Domestic Water Piping in the Central Terminal Area. Refer to available utility composites for location of existing utilities. Also refer to the Domestic Water Piping Project as described elsewhere in the RFP/Contract.
 - J. Demolition, Phasing, Potholing and Restoration Plans are meant to only provide a general extent of the scope. Design Builder shall verify the actual scope through available Record information and field investigation. No extra payments will be made for demolition.
 - K. UT, Plumbing Drawings and other Scoping Drawings are only meant to provide and/or support Design-Build scope and no extra payments will be made.
 - L. Construction Staging, Traffic Control and Temporary Median Work – Design Building shall note the following constraints and information:
 1. Construction Staging, as shown on Scoping Drawings, is just to show the rough boundaries within which work will allowed and therefore is for information only. Actual Staging will be developed through the Area and Utility Shutdown Request Process (ASR/USR process). Refer to the Project Requirements.
 2. At a time, work may only allowed in one Staging area.
 3. Traffic Control Plans, if shown in the Scoping Drawings, are not exhaustive and are only meant to provide guidance as to the type of Traffic Control required in

the Central Terminal Area. Traffic Control for the individual staging areas shall be developed and approved during the ASR/USR process.

4. The Temporary Median Work, if shown in the Scoping Drawings, is not exhaustive and only meant to provide guidance as to how to allow temporary Traffic Control around the Staging Areas. Design Builder shall perform its own site investigation and coordinate the required Median work (and eventual restoration) with LAWA.
 5. No extra payments will be made for any refinements in Staging areas, Traffic Control, Temporary Median work or any other logistical measures undertaken by Design Builder to perform the scope of work.
- M. Testing as required by AHJ – Provide Hydro testing and any other testing as required by AHJ. Design Builder shall ensure that new parts of the system are properly isolated by valves so that there are no wider shutdowns and impacts to the existing system to which connections will be made.
- N. Cleaning, Disinfection and Flushing as required by AHJ– Provide Cleaning and Disinfection required by the AHJ. Design Builder shall ensure that new parts of the system are properly isolated by valves so that there are no wider shutdowns and impacts to the existing system to which connections will be made. Design Builder shall provision of and disposal of water needed for Flushing.
- O. Commissioning Requirements – In addition to Commissioning requirements in the DCH, following minimum scope shall be included by the Design Builder:
1. Commissioning agent shall be hired by the Design Builder but shall be an independent entity with no influence of the Design Builder. Commissioning Agent shall report to LAWA's Commissioning Team.
 2. The minimum Commissioning requirements are:
 - i. Provide a Basis of Design for the scope of work inside TBIT.
 - ii. Test and Commission (including any Testing and Balancing required) the Recycled Water System inside TBIT
 - iii. Coordinate, collaborate and jointly commission with City, LAWA and other entities the entire Recycled Water piping inside the LAX property before, during and after the Recycled Water Supply is turned on from the Hyperion Plant.

1.3 COMMON REQUIREMENTS FOR ALL UTILITY PROJECTS IN THE CENTRAL TERMINAL AREA

- A. Proposal Time Validation and Initial Refinements - Proposed utility horizontal alignments (henceforth referred to as alignments), as shown in the scoping drawings, are conceptual in nature and only meant to convey LAWA's Requirements. **Prior to Proposal**, Design Builder shall validate and refine those alignments based on the available subsurface structures (including but not limited to Foundations for Automated People Mover Guideway, Roadways and Ped Bridges) and utilities information and

investigation of surface site conditions. The vertical profiles for proposed utilities, if provided in the scoping drawings, are conceptual in nature as well. **Prior to proposal**, Design Builder shall validate, refine and design the profiles based on utility conflicts and other criteria. At Proposal time, all knowable/discoverable conditions shall be deemed to be accounted for in the Proposal and therefor no extra payments will be made for the aforementioned initial refinements in design. Any later stage (post award) refinements or design evolutions, which are based on discovery of unforeseen or differing site conditions, will be dealt under other provisions of the Contract/RFP. Design Builder shall coordinate closely with LAWA and its stakeholders and obtain LAWA's prior approval during **Conceptual Design phase** before finalizing the alignments.

- B. Location of Underground utilities – Design Builder shall account for standard locational variability of the subsurface utilities during the aforementioned proposal time validation and initial refinements. No extra payments will be made for changing of design that does not account for such standard locational variability. Refer to Project Requirements.
- C. It is incumbent on Design Builder to verify the actual location of Points of Connection. Design Builder shall validate the Points of Connection in the field and provide initial refinements based on actual points of Connection, available subsurface utilities information and investigation of surface site conditions. No extra payments will be made for such initial refinements in design. Refer to the section on Proposal Time Validation and Initial Refinements.
- D. All potholing and other forms of subsurface utility investigation in support of design, including such investigation of utilities that are shown on the plans, shall be considered incidental to the associated work items and no separate payment shall be made. Potholing and other forms of subsurface utility investigation of utilities that are not shown on the plans shall be approved by LAWA for cost and scope prior to Design Builder proceeding with such investigation work. Potholing and other subsurface investigation of utilities will be in unpaved and paved areas. Refer to Project Requirements for additional Requirements.
- E. LAWA shall conduct mandatory Pre Proposal Job walks for the potential proposers. Irrespective of LAWA issuing any addenda, proposers shall be deemed to have validated the entire scope and physical conditions during those Job walks.
- F. This Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- G. In addition to requirements laid down in this Scoping Memo, the Design and Construction of utilities shall conform to applicable sections of **Guide Specifications, Design Requirements and Construction Requirements** as laid down in the **LAWA Design and Construction Handbook**. LAWA Design and Construction is available on lawa.org. This document may also just be referred to as DCH.

- H. The information listed in the Scoping Memo, including Description, Materials and Execution, lays down minimum requirements. Refer to Regulatory Requirements, DCH and Project Requirements for additional requirements. No extra payments will be made for requirements not listed in this Scoping Memo.
- I. In case of discrepancy between the Scoping Memo, Regulatory Requirements, Authority Having Jurisdiction, Project Requirements, DCH and Manufacturer provided information, the more stringent of the requirements shall be applicable. No extra payments will be made for following the more stringent of the requirements.
- J. The 'Engineer', as referred to in the Scoping Drawings, is meant to be Design Builder's Engineer of Record (EOR) for the project.
- K. All appurtenances, whether listed or not listed in the Scoping Memo or Drawings and as required for a complete and operable system, are to be furnished and installed.
- L. Pipe Base Bedding – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent.
- M. Trench Backfilling – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is stringent
- N. Cast in Place Concrete - as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent
- O. Traffic Control – Design Builder shall note following:
 - 1. Traffic Control, as shown on Scoping Drawings, is for information only. Design Builder shall design its own Traffic Control and obtain necessary approvals before commencing with work. No extra payments will be made. Refer to Project Requirements for additional requirements.
 - 2. No permanent roadway lane closures are allowed in the Central Terminal Area. Design Builder shall phase the work in such a manner that trenches can be plated and the lanes be fully reopened to traffic after nightly work
 - 3. At no time, shall more than one lane in a certain direction of traffic be allowed to close unless approved by LAWA.
 - 4. A substantial amount of CTA Utilities work will take place under the Second Level Roadway. Design Builder shall investigate the availability of vertical clearance and accordingly choose the Construction equipment.
- P. Staging and Phasing of Work – Staging and Phasing of Work, shown on Scoping Drawings, is for information only. Design Builder shall come up its own Staging and Phasing. A Project Phasing Document and a fully documented Logistical Work Plan

Checklist shall be submitted to LAWA CALM Management Team for approval. No extra payments will be made. Refer to Project Requirements for additional requirements.

- Q. **Special Coordination with Automated People Mover (APM) Project** – Design Builder shall be required to coordinate closely with LINXX (the Developers of the APM Project). Irrespective of LAWA's commitment to Design Builder about scheduled availability of construction areas elsewhere in the Contract, Design Builder shall the notify APM Team and LAWA one month in advance of any work planned in APM Project's Design and Construction Limits. Refer to APM/LINXX's Design and Construction Limits as provided in the RFP Documents.
- R. **Removal/Restoration of Pavements, Striping, Landscaping and other items** – The pavement removals and restoration of pavements, landscaping, security bollards and other items are considered incidental to the associated work items and no extra payments will be made. Except for materials which are to be stockpiled outside the CTA, crushed and/or recycled, all other items removed to allow construction of the project shall be removed and legally disposed of off the airport property. Pavements, striping, Landscaping, security bollards and other surface and subsurface items shall be restored to original condition. Refer to Project Requirements for additional requirements.
- S. Any temporary or permanent impacts, over ground or underground, on LAWA property caused by design and construction shall be reviewed and approved by LAWA. Refer to Project Requirements for additional information.
- T. Work can only be performed at night time inside the CTA. Typically, the work window ranges between 12 PM (mid-night) to 8:00 AM in the morning (subject to change related to Airport Operational issues). The start time and end time in a work shift is dictated by LAWA Operations and the Design Builder will be required to coordinate closely with LAWA Operations and contractors performing work in the vicinity. Approved nightly hours of work will vary depending on the season and conditions and are often 5 hours or less. Refer to Project Requirements for more information and other logistical constraints.
- U. No parking shall be provided to the Design Builder in the Central Terminal Area nor are the public parking structures and areas in the CTA to be used for parking by the Design Builder or its sub-contractors or laborers. Design Builder shall provide a Parking Plan which provides for a shuttle; a submittal for LAWA's approval demonstrating how Parking requirements for CTA and non-CTA will be met. Refer to Project Requirements.
- V. No Storage or Laydown area will be provided in the Central Terminal Area of LAX. Storage is to be in the designated laydown areas identified in the Project Requirements.
- W. Design Builder shall access worksites via public roads in compliance with DCH and in coordinating with AHJs.

- X. Haul routes, crew shuttle routes and delivery routes and times of operation shall be coordinated with and approved by AHJs.
- Y. Fencing and barricades requirements per LAWA Design and Construction Handbook (DCH).

1.4 REGULATORY REQUIREMENTS AND STANDARDS

- A. All Work shall meet the requirements of local codes, ordinances, and utility companies except adhere to the Contract Documents when more strict requirements are specified.
- B. LAWA Design and Construction Handbook (DCH) - available at lawa.org

1.5 QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Quality Assurance

1.6 FIELD QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Field Quality Assurance.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Delivery, Storage and Handling.

1.8 LIST OF SCOPING DOCUMENTS

- A. Scoping Drawings 1 – Main
- B. Scoping Drawings 1.1 - CTA INTERFACE & RUE PROPOSED RECYCLED & CHILLED WATER DESIGN-CTA OVERALL
- C. Scoping Drawings 2 - RW extension to Terminal 3
- D. Scoping Drawings 3 - SK-2 Survey Monument Clearance

1.9 REFERENCES

Refer to References section.

2 - MATERIALS

- A. Refer to DCH for all Materials

3 - EXECUTION

- A. Refer to DCH, Project Requirements and Regulatory Requirements for Execution Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR RECYCLED WATER EXTENSION PROJECT

Project 15

CTA02

**CTA Chilled Water & LT Hot Water
Pipe Replacement**

PROJECT CRITERIA AND SCOPING MEMO FOR CTA CHILLED WATER & LT HOT WATER PIPE REPLACEMENT

1 - DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Below-Ground Chilled Water Piping (Chilled Water may be referred hereafter as CHW)
- B. Below-Ground Low Temperature Hot Water Piping (Low Temperature Hot Water may be referred hereafter as LTHW)
- C. CHW and LTHW piping may jointly be referred to hereafter as Hydronic Piping.

1.2 REQUIREMENTS SPECIFIC TO CENTAL TERMINAL AREA DOMESTIC WATER PIPE REPACMENTS

- A. Work shall include furnishing, installing, and testing of Hydronic Piping, as shown in the Scoping Drawings, for a complete and operable system which is fully integrated with the existing Hydronic piping system of Central Utility Plant.
- B. Connection at Vault 11 - Hydronic piping shall be connected at one end to existing Vault 11 as shown in the Scoping Drawings.
- C. Connection at Terminal 1.5 existing stub outs - On the other end, Hydronic piping (as well as recycled water piping as presented elsewhere in the Contract/RFP) shall be connected to existing stub outs for Hydronic piping (as well as recycled water stub out as presented elsewhere in the Contract/RFP). The existing stub outs are located in the sidewalk/roadway of the lower level arrivals area in between Terminals 1 and 2. See Scoping Drawing Sheet M4000, titled 'Enlarged Plan Pump Room', for location of Hydronic stub outs. Refer to Scoping Memo for Recycled Water for stub out and connection information for Recycled Water between Terminals 1 and 2.
- D. System Design Temperatures, Pressures and Classes - System design pressures shall not be less than 1.5 times system maximum operating pressure at design temperature. Piping components shall be suitable for use under design pressures specified. Except as modified herein, pressure/temperature limitations shall be as specified in referenced standards and specifications. Pressures in this specification are pressures in above atmospheric pressure, and temperatures are in degrees Fahrenheit (F). System design, component selection, and system installation, including pressure containing parts and materials, shall meet or exceed the following requirements:
 - 1) CHW piping shall be designed for a minimum service pressure of 150 psi at 40 degrees F; minimum Class 150.

- 2) LTHW piping shall be designed for a minimum service pressure of 150 psi at 220 degrees F; minimum Class 150.
- E. Expansion loops - Expansion Loops as required to compensate for thermal expansion of the underground piping. The design and construction of expansion loops is considered incidental to the scope and no extra payment shall be made for any above ground or underground work related to expansion loops. Design Builder is responsible for performing the analysis to determine the need for expansion loops.
 - F. Clearance from Survey Monument outside the Theme Building - Design Builder shall ensure that the extremity of the Utility Trench that will contain the new Hydronic Lines as well as the Recycled Water Line, including any Trench over-excavation, does not encroach within the shortest distance between the Survey Monument and the edge of the sidewalk farthest from the Survey Monument. Refer to Scoping Drawing titled SK-2.
 - G. Do not scale Vault XX as shown in the Scoping Drawings – re-size the vault to allow for piping shown including piping flushing connections shown on SK-1 of scoping drawings and allowing for temporary piping for flushing.
 - H. Future use stub outs at Vault XX - The piping designated for future use shall be extended 15 feet out of Vault XX and capped in a way satisfactory to LAWA.
 - I. Supplemental Piping & Vault details noted on the Record drawing for Vault 11 shall be applied to Vault XX including piping at Vault XX.
 - J. Full size flushing connections - Provide full size flushing connections and strainers inside Terminal 1.5 Pump Room. See exhibit SK-1. Such flushing connections will be placed such that the new piping can be isolated by closing existing valves in Terminal 1.5 Pump Room.
 - K. Shared Trench with New Recycled Water Line - Recycled Water piping will be in the same trench as the Hydronic piping. The design and construction of Recycled Water piping, as scoped out in other parts of the Contract/RFP, shall be in conjunction with the Hydronic piping design and construction.
 - L. Pipe cleaning and Chemical Flushing - Provide Hydronic pipe cleaning and flushing with clean water and chemicals. Pipe cleaning and flushing are considered incidental work and no extra payments will be made. Following minimum requirements shall apply:
 1. Provide pipe cleaning and flushing using clean water, acids and other chemicals. The cleaning and flushing procedure shall be based on recommendations of the Pipe Manufacturer (or other competent third party assuming warranty is fully maintained) and the procedure shall be submitted to LAWA for prior approval.

LAWA and Manufacturer recommended Field Quality Assurance shall be provided for such chemical cleaning and flushing.

2. Provide Full size flanges for cleaning and flushing.
3. Design Builder is responsible for providing and disposing of flushing water as required for the cleaning and flushing operations.
4. Provide strainer screens, filters, pumps and other equipment as required for the cleaning and flushing operations.
5. Chemical Flushing and other Pipe cleaning shall be undertaken in a manner that the new piping can be isolated and that the existing system components are not impacted by such flushing. Refer to scoping drawings (SK-1) for suggested placement of such flanges.

M. Construction Staging, Traffic Control and Temporary Median Work – Design Building shall note the following constraints and information:

1. Construction Staging, as shown on Scoping Drawings, is just to show the rough boundaries within which work will allowed and therefore is for information only. Actual Staging will be developed through the Area and Utility Shutdown Request Process (ASR/USR process). Refer to the Project Requirements.
2. At a time, work may only allowed in one Staging area.
3. Traffic Control Plans, as shown in the Scoping Drawings, are not exhaustive and are only meant to provide guidance as to the type of Traffic Control required in the Central Terminal Area. Traffic Control for the individual staging areas shall be developed and approved during the ASR/USR process.
4. The Temporary Median Work, if shown in the Scoping Drawings, is not exhaustive and only meant to provide guidance as to how to allow temporary Traffic Control around the Staging Areas. Design Builder shall perform its own site investigation and coordinate the required Median work (and eventual restoration) with LAWA.
5. No extra payments will be made for any refinements in Staging areas, Traffic Control, Temporary Median work or any other logistical measures undertaken by Design Builder to perform the scope of work.

1.3 COMMON REQUIREMENTS FOR ALL UTILITY PROJECTS IN THE CENTRAL TERMINAL AREA

- A. Proposal Time Validation and Initial Refinements - Proposed utility horizontal alignments (henceforth referred to as alignments), as shown in the scoping drawings, are conceptual in nature and only meant to convey LAWA's Requirements. **Prior to Proposal**, Design Builder shall validate and refine those alignments based on the available subsurface structures (including but not limited to Foundations for Automated People Mover Guideway, Roadways and Ped Bridges) and utilities information and investigation of surface site conditions. The vertical profiles for proposed utilities, if provided in the scoping drawings, are conceptual in nature as well. **Prior to proposal**,

Design Builder shall validate, refine and design the profiles based on utility conflicts and other criteria. At Proposal time, all knowable/discoverable conditions shall be deemed to be accounted for in the Proposal and therefor no extra payments will be made for the aforementioned initial refinements in design. Any later stage (post award) refinements or design evolutions, which are based on discovery of unforeseen or differing site conditions, will be dealt under other provisions of the Contract/RFP. Design Builder shall coordinate closely with LAWA and its stakeholders and obtain LAWA's prior approval during **Conceptual Design phase** before finalizing the alignments.

- B. Location of Underground utilities – Design Builder shall account for standard locational variability of the subsurface utilities during the aforementioned proposal time validation and initial refinements. No extra payments will be made for changing of design that does not account for such standard locational variability. Refer to Project Requirements.
- C. It is incumbent on Design Builder to verify the actual location of Points of Connection. Design Builder shall validate the Points of Connection in the field and provide initial refinements based on actual points of Connection, available subsurface utilities information and investigation of surface site conditions. No extra payments will be made for such initial refinements in design. Refer to the section on Proposal Time Validation and Initial Refinements.
- D. All potholing and other forms of subsurface utility investigation in support of design, including such investigation of utilities that are shown on the plans, shall be considered incidental to the associated work items and no separate payment shall be made. Potholing and other forms of subsurface utility investigation of utilities that are not shown on the plans shall be approved by LAWA for cost and scope prior to Design Builder proceeding with such investigation work. Potholing and other subsurface investigation of utilities will be in unpaved and paved areas. Refer to Project Requirements for additional Requirements.
- E. LAWA shall conduct mandatory Pre Proposal Job walks for the potential proposers. Irrespective of LAWA issuing any addenda, proposers shall be deemed to have validated the entire scope and physical conditions during those Job walks.
- F. This Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- G. In addition to requirements laid down in this Scoping Memo, the Design and Construction of utilities shall conform to applicable sections of **Guide Specifications, Design Requirements and Construction Requirements** as laid down in the **LAWA Design and Construction Handbook**. LAWA Design and Construction is available on lawa.org. This document may also just be referred to as DCH.

- H. The information listed in the Scoping Memo, including Description, Materials and Execution, lays down minimum requirements. Refer to Regulatory Requirements, DCH and Project Requirements for additional requirements. No extra payments will be made for requirements not listed in this Scoping Memo.
- I. In case of discrepancy between the Scoping Memo, Regulatory Requirements, Authority Having Jurisdiction, Project Requirements, DCH and Manufacturer provided information, the more stringent of the requirements shall be applicable. No extra payments will be made for following the more stringent of the requirements.
- J. The 'Engineer', as referred to in the Scoping Drawings, is meant to be Design Builder's Engineer of Record (EOR) for the project.
- K. All appurtenances, whether listed or not listed in the Scoping Memo or Drawings and as required for a complete and operable system, are to be furnished and installed.
- L. Pipe Base Bedding – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent.
- M. Trench Backfilling – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is stringent
- N. Cast in Place Concrete - as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent
- O. Traffic Control – Design Builder shall note following:
 - 1. Traffic Control, as shown on Scoping Drawings, is for information only. Design Builder shall design its own Traffic Control and obtain necessary approvals before commencing with work. No extra payments will be made. Refer to Project Requirements for additional requirements.
 - 2. No permanent roadway lane closures are allowed in the Central Terminal Area. Design Builder shall phase the work in such a manner that trenches can be plated and the lanes be fully reopened to traffic after nightly work
 - 3. At no time, shall more than one lane in a certain direction of traffic be allowed to close unless approved by LAWA.
 - 4. A substantial amount of CTA Utilities work will take place under the Second Level Roadway. Design Builder shall investigate the availability of vertical clearance and accordingly choose the Construction equipment.
- P. Staging and Phasing of Work – Staging and Phasing of Work, shown on Scoping Drawings, is for information only. Design Builder shall come up its own Staging and Phasing. A Project Phasing Document and a fully documented Logistical Work Plan

Checklist shall be submitted to LAWA CALM Management Team for approval. No extra payments will be made. Refer to Project Requirements for additional requirements.

- Q. **Special Coordination with Automated People Mover (APM) Project** – Design Builder shall be required to coordinate closely with LINXX (the Developers of the APM Project). Irrespective of LAWA's commitment to Design Builder about scheduled availability of construction areas elsewhere in the Contract, Design Builder shall the notify APM Team and LAWA one month in advance of any work planned in APM Project's Design and Construction Limits. Refer to APM/LINXX's Design and Construction Limits as provided in the RFP Documents.
- R. **Removal/Restoration of Pavements, Striping, Landscaping and other items** – The pavement removals and restoration of pavements, landscaping, security bollards and other items are considered incidental to the associated work items and no extra payments will be made. Except for materials which are to be stockpiled outside the CTA, crushed and/or recycled, all other items removed to allow construction of the project shall be removed and legally disposed of off the airport property. Pavements, striping, Landscaping, security bollards and other surface and subsurface items shall be restored to original condition. Refer to Project Requirements for additional requirements.
- S. Any temporary or permanent impacts, over ground or underground, on LAWA property caused by design and construction shall be reviewed and approved by LAWA. Refer to Project Requirements for additional information.
- T. Work can only be performed at night time inside the CTA. Typically, the work window ranges between 12 PM (mid-night) to 8:00 AM in the morning (subject to change related to Airport Operational issues). The start time and end time in a work shift is dictated by LAWA Operations and the Design Builder will be required to coordinate closely with LAWA Operations and contractors performing work in the vicinity. Approved nightly hours of work will vary depending on the season and conditions and are often 5 hours or less. Refer to Project Requirements for more information and other logistical constraints.
- U. No parking shall be provided to the Design Builder in the Central Terminal Area nor are the public parking structures and areas in the CTA to be used for parking by the Design Builder or its sub-contractors or laborers. Design Builder shall provide a Parking Plan which provides for a shuttle; a submittal for LAWA's approval demonstrating how Parking requirements for CTA and non-CTA will be met. Refer to Project Requirements.
- V. No Storage or Laydown area will be provided in the Central Terminal Area of LAX. Storage is to be in the designated laydown areas identified in the Project Requirements.
- W. Design Builder shall access worksites via public roads in compliance with DCH and in coordinating with AHJs.

- X. Haul routes, crew shuttle routes and delivery routes and times of operation shall be coordinated with and approved by AHJs.
- Y. Fencing and barricades requirements per LAWA Design and Construction Handbook (DCH).

1.4 REGULATORY REQUIREMENTS AND STANDARDS

- A. Conform to ANSI/ASME B31.1.
- B. All Work shall meet the requirements of local codes, ordinances, and utility companies except adhere to the Contract Documents when more strict requirements are specified.
- C. LAWA Design and Construction Handbook (DCH) - available at lawa.org

1.5 QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Quality Assurance
- B. The Manufacturer of the underground pre-insulated piping shall provide a stress analysis, including thermal stresses and other stresses, on the underground piping systems. This shall include a design for all anchors, pipe guides, expansion joints, expansion loops, thrust blocks, and/or other provisions, required to compensate for thermal expansion and other stresses on the underground piping.

1.6 FIELD QUALITY ASSURANCE FOR UNDERGROUND PRE-INSULATED PIPING

- A. Provide the services of a certified manufacturer's representative to instruct the Contractor on the installation procedures of the underground, pre-insulated piping, and to be present on site to assist during critical stages of installation and testing. The representative shall be a direct employee of the manufacturer who is certified to provide Field Technical Assistance (FTA).
- B. One (1) day/trip of FTA shall be provided for each 1,000 feet of pipe trench installed with a minimum of seven (7) days required. These days preferably will not be consecutive days and must be spread out over the duration of the project. The FTA representative shall observe critical periods of the installation including the following:
 - 1. Inspection of the first load of material during unloading.
 - 2. Initial inspection of the trench and initial pipe placement.
 - 3. Initial field joint closure instruction and inspection.
 - 4. Any field modification to the piping system.
 - 5. Initial backfill of piping in trench.
- C. Include a report consisting of the installation log indicating actual installed conditions and test certification signed by the manufacturer's representative above, the Design Builder, and LAWA. Include certification by the manufacturer's representative that the installation is in conformance with the manufacturer's recommendations.

- D. Pre-insulated pipe manufacturer shall provide testing on the polyurethane foam as indicated within Manufacturer's specifications and DCH.
- E. Refer to DCH, Project Requirements and Manufacturer's recommendations for Field Quality Assurance.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store valves in shipping containers with labeling in place.
- B. Refer to DCH, Project Requirements and Manufacturer's recommendations for Delivery, Storage and Handling.

1.8 LIST OF SCOPING DOCUMENTS

- A. Scoping Drawings 1 – Main
- B. Scoping Drawings 1.1 - CTA INTERFACE & RUE PROPOSED RW & CHWLTHW-CTA OVERALL
- C. Scoping Drawings 2 - SK-1 flushing details revised
- D. Scoping Drawings 3 - SK-2 Survey Monument Clearance
- E. Scoping Drawings 4 - M4000 - stub outs at T1.5

1.9 REFERENCES

Refer to References section.

2 - MATERIALS

- A. Refer to DCH for Materials requirements.
- B. Below-Ground Chilled Water (CHW) and Low Temperature Hot Water (LTHW) supply and return piping shall be pre-fabricated, pre-insulated pipe type. All pre-insulated pipe must be supplied by the same approved manufacturer. All Proposers must propose on the specified approved manufacturer or another manufacturer approved via addendum. Failure to comply with these specifications will result in the rejection of the submittals and any cost impact for delaying the project will be the responsibility of the Design-Builder.
- C. Manufacturer shall be as indicated below:
 - 1. Perma Pipe / Ricwil
 - 2. Rovanco with materials as specified here-in
 - 3. Insul-tek with materials as specified here-in
- D. All Straight Sections, fittings, anchors and other accessories shall be factory designed, prefabricated, insulated and jacketed. Field insulation of fittings shall not be allowed.

3 - EXECUTION

- A. Refer to DCH, Project Requirements and Regulatory Requirements for Execution Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR CTA CHILLED WATER & LT HOT WATER PIPE REPLACEMENT

Project 16

CTA03

CTA Domestic Water Pipe
Replacement

PROJECT CRITERIA AND SCOPING MEMO FOR CTA DOMESTIC WATER PIPE REPLACEMENT

1 - DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Install new 12" Domestic Water piping in East-West orientation outside North Terminals and South Terminals
- B. Install new 12" Domestic Water piping in North-South orientation connecting East-West piping to the existing 16" Domestic Water Trunk Line running along Center Way.
- C. Provide Dual Feed lateral connections serving the Terminals
- D. Cap and Abandon existing 325 pressure zone and cutover to new 477 pressure zone inside Terminal Pump Rooms.

1.2 REQUIREMENTS SPECIFIC TO CENTAL TERMINAL AREA DOMESTIC WATER PIPE REPACMENTS

- A. As shown in the Scoping Drawings, work shall include furnishing, installing, and testing of Domestic Water Piping system (new 477 pressure zone Domestic Water replacement piping will be referred to hereafter as CTADW) for a complete and operable system.
- B. Design and Construct the following Main Lines of CTADW – Also refer to Scoping Drawings C601 through C621 and Detailed Scope section. Refer to the ERDIP specification contained within this RFP.
 - 1. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running outside North Terminals in the east west orientation (will be referred to as World Way North line or WWN Line). WWN Line shall connect to WW Line, TW Line and P1 Line.
 - 2. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running outside South Terminals in the east west orientation (will be referred to as World Way South line or WWS Line). WWS Line shall connect to WW Line, TW Line, EW Line, P7 Line and P8 Line.
 - 3. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running in the north-south orientation in the vicinity of West Way (will be referred to as West Way line or WW Line). WW Line shall connect to WWN Line, WWS Line and the existing 16 inch Domestic Water Line that runs through Center Way.
 - 4. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running in the north south orientation in the vicinity of Theme Way (will be referred to as Theme Way line or TW line). TW Line shall connect to WWS Line, the existing 16 inch

Domestic Water Line running through Center Way and the existing 12 inch Domestic Water Line running between Terminals 1 and 2.

5. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running in the north south orientation in the vicinity of East Way (will be referred to as East Way line or EW Line). EW Line shall connect to WWS Line and the existing 12 inch Domestic Water Line that runs through Center Way.
6. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running in the north south orientation just to the east of Parking Structure 1 and extending to future Terminal 0 (will be referred to as P1 Line). P1 Line shall connect to WWN Line and the existing 12 inch Domestic Water line that runs in the Center Way.
7. 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, running in the north south orientation just to the east of Parking Structure 7 (will be referred to as P7 line). P7 Line shall connect to WWS Line and existing 12 inch Domestic Water Line running in the Center Way.

C. Detailed Scope for Main Lines of CTADW

1. Refer to Sheet C601 – Construct a segment of WWN line (WWN T3 segment). Connect this segment at the west end to existing Water line that currently serves Tom Bradley International Terminal (TBIT). This Point of Connection (POC) is in a vault on the Airside. Design Builder shall field verify the POC prior to proposal.
2. Refer to Sheet C601 – Connect the aforementioned WWN T3 segment of WWN line to west end of the existing East-West Domestic Water Line that runs outside Terminal 3. See Sheet C601 for POC coordinates.
3. Refer to C602 – Construct a segment of WWN line (WWN T2 segment). Connect this segment to east end of the existing East-West Domestic Water Line that runs outside Terminal 3. Refer to Sheet C602 for POC coordinates.
4. Refer to Sheet C603 - Connect WWN T2 segment to west end of existing east west Domestic Water Line that runs outside Terminals 1 and 2. See Sheet C603 for POC coordinates.
5. Refer to Sheet C604 – Construct a segment of WWN line that runs east west in front of Terminal 1 and heading to future Terminal 0. This segment will be referred to as WWN T1 segment. Connect WWN T1 segment at the west end to existing east west Domestic Water line that runs between Terminals 1 and 2. See Sheet C604 for POC Coordinate. Design Builder shall coordinate with LAWA and Terminal 0 Project Team for exact coordinates of the stub out as well as the lay out of the WWN and P1 lines around future Terminal 0.
6. Refer to Sheet C604 - Provide lateral connections into Terminal 1 that connect to WWN T1 segment (T1 Lateral). Refer to scope section on Design-Build Requirements for Laterals.
7. Refer to Sheet titled Plan and Profile 6 of 21. Construct P1 Line of CTADW. WWN Line shall connect to P1 line as conceptually shown in in this Drawing (Design Builder shall verify the most suitable connection location for WWN and P1 lines based on coordination with LAWA and Terminal 0 Project Team).

8. Refer to Sheet C608 – Construct WWS Line and connect on the west end to existing 12 inch Domestic Water Line that runs diagonally from Parking Structure 4 and Terminal 4 Connector. Design Builder shall field verify the provided POC to the existing Domestic Water Line.
 9. Refer to Sheet C608 – Provide lateral connection into Terminal 4 by connecting to WWS line (T4 Lateral). Refer to scope section on Laterals.
 10. Refer to Sheet C609 – Provide lateral connection into Terminal 5 by connecting to WWS line (T5 Lateral). Refer to scope section on Laterals.
 11. Refer to Sheet C611 – Provide lateral connection into Terminal 6 by connecting to WWS line (T6 Lateral). Refer to scope section on Laterals.
 12. Refer to Sheet C612 – Provide lateral connection into Terminal 7 by connecting to WWS line (T7 Lateral). Refer to scope section on Laterals.
 13. Refer to Sheets C613 and C614 – Provide lateral connection into Terminal 8 by connecting to WWS Line (T8 Lateral). Refer to scope section on Laterals.
 14. Refer to Sheet C620 – Construct P7 Line and connect P7 line to existing water lines at 3 locations as shown. A Lateral Connection to P7 shall NOT be constructed. However, a Tee and a Valve shall be installed on the existing Domestic Water Pipe for a future Lateral Connection to P7 as shown in Drawing C620. Design Builder shall coordinate with LAWA on the location and placement of the Tee.
- D. Lateral Connections from Main Lines to Terminal POCs – Refer to Scoping Drawing SK-1 (schematic drawing). Dual feed (two individual 6 inch) Ductile Iron lateral connections shall be provided from the Main Lines to the Pump Rooms of Terminals 4, 5, 6, 7 and 8 respectively. Isolation valves and water meter shall be provided on the Dual Feed laterals at locations as shown in SK-1. Inside the Pump Rooms, laterals shall be installed and cutover to the existing Domestic Water system. Design Builder shall submit a cutover plan for LAWA's approval. Subsequent to the cutover, the existing lateral connection piping, meters, existing valves, etc. shall be demolished and removed completely by the Design Builder. Design Builder shall note that the Lateral Connections, as shown in the plan view of Scoping Drawings, are schematic only and do not intend to demonstrate the routing of the laterals. A Single Feed Lateral shall be provided from the Main Line to a POC outside Terminal 1. Prior to Proposal, Design Builder shall consider alternative plans for placement and routing of laterals. **Design Builder shall be responsible to field verify all the site conditions outside and inside the Terminals, in the ceiling space and inside any Utility Tunnels. All such site conditions and the different routing alternatives shall be deemed included in the scope and no extra payments will be made for such conditions post award on the grounds of differing/unforeseen conditions.** Design Builder's proposed routing of the laterals, including use of tunnels, direct bury and ceiling space, shall be submitted for LAWA approval at Conceptual Design Stage (30% or before). LAWA retains the final decision on the placement of the laterals and may reject Design Builder's design proposal for use of tunnels, direct bury through Terminals or ceiling space. Also refer to section on Pump Room Locations.

E. Terminal POCs -

- a. T1 – outside the Terminal Building - – Single Feed Lateral to connect WWN Line to a POC outside the building line of Terminal 1 Pump Room. Design Builder shall field verify and coordinate with LAWA for exact location of POC. Refer to Scoping Exhibit for approximate location of POC.
- b. T4, T5, T6, T7 and T8 Pump Rooms – Dual Feed Laterals (two separate laterals) to connect WWS Line to the respective Terminal Pump Rooms. Refer to Scoping Drawings for location of Pump Rooms to where the dual laterals shall be routed to.

F. Valves - Regardless of what is shown on Scoping Drawings, there shall be Isolation Valves on every side of the point where the Main Lines intersect each other. Regardless of what is shown on Scoping Drawings, there shall be valves on every side of the point where the Main Lines intersect the existing 16" Domestic Water Line running through the Center Way. Refer to Scoping Drawing SK-1 for placement location of isolation valves for the Laterals.

G. Average trench depth – For pricing purposes, assume an average trench depth of ten feet from existing grade to the top of CTADW. No extra payments will be made to account for trench depth exceeding 10 feet in certain places, including shoring, material import/export and other considerations, unless the actual trench depths, including shoring, material import/export and other considerations, for the entire CTADW project are accounted for and presented to LAWA.

H. Minimum Separation from Recycled Water Piping in the CTA – Design Builder shall ensure that a minimum separation, as required by Authority Having Jurisdiction, is maintained between Domestic Water piping and the existing and upcoming Recycled Water piping in the Central Terminal Area. Refer to available utility composites for location of existing utilities. Also refer to the Recycled Water Piping Project as described elsewhere in the RFP/Contract.

I. Cutovers, Shutdowns and Contingency Provisioning -

1. Provide cutover to CTADW (477 pressure zone system) from the old 325 pressure zone inside the Pump Rooms of Terminals 1, 4, 5, 6, 7 and 8.
2. All Utility shutdowns, including but not limited to those required for Cutovers shall be developed as part of the ASR/USR process.
3. Design Builder shall provide Contingency supplies (drinking water, temporary restrooms, etc.), as required by LAWA and at no extra cost to LAWA, for shutdowns that result in Domestic water shutdown.
4. Provide a Cutover and Contingency for LAWA's prior approval.

- J. Pipe Abandonment – Cap, abandon and slurry fill existing 325 pressure zone piping. For proposal purposes, Design Builder shall assume 8000 feet of piping that shall be abandoned. All work required for such abandonment shall be included in the price proposal and no extra payments will be made for abandonment.
- K. Unless otherwise specified, CTADW piping shall be 12 inch Earthquake Resistant Ductile Iron Pipe, ERDIP,. Refer to applicable sections of Guide Specifications and Design Requirements of LAWA Design and Construction Handbook (DCH) for more detail.
- L. Co-placement of CTADW and future Fire Water Piping – It is anticipated that Design Builder shall be directed to Design and Build a new Fire Water piping in the CTA. These Fire Water lines, referred to hereafter as CTAFW, are expected to more or less match the layout of CTADW. Therefore, at Proposal time and during design of CTADW, Design Builder shall spatially account for **24” Fire Water Earthquake Resistant Ductile Iron Pipe, ERDIP,s** to be placed in the same trench as CTADW. The actual scope and pricing for CTAFW will be negotiated between LAWA and Design Builder during the Design period for CTADW.
- M. Construction Staging, Traffic Control and Temporary Median Work – Design Building shall note the following constraints and information:
1. Construction Staging, as shown in Scoping Drawings, is offered for planning purposes and are strictly for information only. Staging Drawings demonstrate the rough boundaries within which **segments of work** will allowed. Actual Staging and boundaries for work segments will be developed through the Area and Utility Shutdown Request Process (ASR/USR process). Refer to the Project Requirements for Work Moratorium and other work constraints inside the Central Terminal Area.
 2. Due to operational constraints inside the Central Terminal Area, LAWA may not allow construction work on more than one segment at one time.
 3. Traffic Control Plans, as shown in the Scoping Drawings, are not exhaustive and are only meant to provide guidance as to the type of Traffic Control required in the Central Terminal Area. Traffic Control for the individual staging areas shall be developed and approved during the ASR/USR process.
 4. Design Builder shall set up and remove temporary fence to protect pedestrians around the Construction Staging areas.
 5. The Temporary Median Work, if shown in the Scoping Drawings, is not exhaustive and only meant to provide guidance as to how to allow temporary Traffic Control around the Staging Areas. Design Builder shall perform its own site investigation and coordinate the required Median work (and eventual restoration) with LAWA.

6. No extra payments will be made for any refinements in Staging areas, Traffic Control, Temporary Median work or any other logistical measures undertaken by Design Builder to perform the scope of work.
- N. Pipe cleaning, disinfection flushing and testing -
1. Provide full size flushing connections for pipe cleaning.
 2. Design Builder shall Hydro test as required by DCH, Authority Having Jurisdiction (AHJ) and Pipe Manufacturer.
 3. Design Builder shall provide chlorination and any other pipe cleaning/disinfection as required by DCH, AHJ and Pipe Manufacturer.
 4. Design Builder shall flush and dispose the water as required by AHJs and LAWA.
 5. Design Builder shall provide its own water for testing, cleaning and flushing.
 6. Staging areas shall be developed and set up by Design Builder for testing, cleaning and flushing such that number of closures are minimized. No extra payments for LAWA imposed restrictions during testing, cleaning and flushing operations.

1.3 COMMON REQUIREMENTS FOR ALL UTILITY PROJECTS IN THE CENTRAL TERMINAL AREA

- A. Proposal Time Validation and Initial Refinements - Proposed utility horizontal alignments (henceforth referred to as alignments), as shown in the scoping drawings, are conceptual in nature and only meant to convey LAWA's Requirements. **Prior to Proposal**, Design Builder shall validate and refine those alignments based on the available subsurface structures (including but not limited to Foundations for Automated People Mover Guideway, Roadways and Ped Bridges) and utilities information and investigation of surface site conditions. The vertical profiles for proposed utilities, if provided in the scoping drawings, are conceptual in nature as well. **Prior to proposal**, Design Builder shall validate, refine and design the profiles based on utility conflicts and other criteria. At Proposal time, all knowable/discoverable conditions shall be deemed to be accounted for in the Proposal and therefor no extra payments will be made for the aforementioned initial refinements in design. Any later stage (post award) refinements or design evolutions, which are based on discovery of unforeseen or differing site conditions, will be dealt under other provisions of the Contract/RFP. Design Builder shall coordinate closely with LAWA and its stakeholders and obtain LAWA's prior approval during **Conceptual Design phase** before finalizing the alignments.
- B. Location of Underground utilities – Design Builder shall account for standard locational variability of the subsurface utilities during the aforementioned proposal time validation and initial refinements. No extra payments will be made for changing of design that does not account for such standard locational variability. Refer to Project Requirements.
- C. It is incumbent on Design Builder to verify the actual location of Points of Connection. Design Builder shall validate the Points of Connection in the field and provide initial

refinements based on actual points of Connection, available subsurface utilities information and investigation of surface site conditions. No extra payments will be made for such initial refinements in design. Refer to the section on Proposal Time Validation and Initial Refinements.

- D. All potholing and other forms of subsurface utility investigation in support of design, including such investigation of utilities that are shown on the plans, shall be considered incidental to the associated work items and no separate payment shall be made. Potholing and other forms of subsurface utility investigation of utilities that are not shown on the plans shall be approved by LAWA for cost and scope prior to Design Builder proceeding with such investigation work. Potholing and other subsurface investigation of utilities will be in unpaved and paved areas. Refer to Project Requirements for additional Requirements.
- E. LAWA shall conduct mandatory Pre Proposal Job walks for the potential proposers. Irrespective of LAWA issuing any addenda, proposers shall be deemed to have validated the entire scope and physical conditions during those Job walks.
- F. This Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- G. In addition to requirements laid down in this Scoping Memo, the Design and Construction of utilities shall conform to applicable sections of **Guide Specifications, Design Requirements and Construction Requirements** as laid down in the **LAWA Design and Construction Handbook**. LAWA Design and Construction is available on lawa.org. This document may also just be referred to as DCH.
- H. The information listed in the Scoping Memo, including Description, Materials and Execution, lays down minimum requirements. Refer to Regulatory Requirements, DCH and Project Requirements for additional requirements. No extra payments will be made for requirements not listed in this Scoping Memo.
- I. In case of discrepancy between the Scoping Memo, Regulatory Requirements, Authority Having Jurisdiction, Project Requirements, DCH and Manufacturer provided information, the more stringent of the requirements shall be applicable. No extra payments will be made for following the more stringent of the requirements.
- J. The 'Engineer', as referred to in the Scoping Drawings, is meant to be Design Builder's Engineer of Record (EOR) for the project.
- K. All appurtenances, whether listed or not listed in the Scoping Memo or Drawings and as required for a complete and operable system, are to be furnished and installed.

- L. Pipe Base Bedding – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent.
- M. Trench Backfilling – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is stringent
- N. Cast in Place Concrete - as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent
- O. Traffic Control – Design Builder shall note following:
 - 1. Traffic Control, as shown on Scoping Drawings, is for information only. Design Builder shall design its own Traffic Control and obtain necessary approvals before commencing with work. No extra payments will be made. Refer to Project Requirements for additional requirements.
 - 2. No permanent roadway lane closures are allowed in the Central Terminal Area. Design Builder shall phase the work in such a manner that trenches can be plated and the lanes be fully reopened to traffic after nightly work
 - 3. At no time, shall more than one lane in a certain direction of traffic be allowed to close unless approved by LAWA.
 - 4. A substantial amount of CTA Utilities work will take place under the Second Level Roadway. Design Builder shall investigate the availability of vertical clearance and accordingly choose the Construction equipment.
- P. Staging and Phasing of Work – Staging and Phasing of Work, shown on Scoping Drawings, is for information only. Design Builder shall come up its own Staging and Phasing. A Project Phasing Document and a fully documented Logistical Work Plan Checklist shall be submitted to LAWA CALM Management Team for approval. No extra payments will be made. Refer to Project Requirements for additional requirements.
- Q. **Special Coordination with Automated People Mover (APM) Project** – Design Builder shall be required to coordinate closely with LINXX (the Developers of the APM Project). Irrespective of LAWA's commitment to Design Builder about scheduled availability of construction areas elsewhere in the Contract, Design Builder shall the notify APM Team and LAWA one month in advance of any work planned in APM Project's Design and Construction Limits. Refer to APM/LINXX's Design and Construction Limits as provided in the RFP Documents.
- R. Removal/Restoration of Pavements, Striping, Landscaping and other items – The pavement removals and restoration of pavements, landscaping, security bollards and other items are considered incidental to the associated work items and no extra payments will be made. Except for materials which are to be stockpiled outside the CTA, crushed and/or recycled, all other items removed to allow construction of the project shall be removed and legally disposed of off the airport property. Pavements, striping,

Landscaping, security bollards and other surface and subsurface items shall be restored to original condition. Refer to Project Requirements for additional requirements.

- S. Any temporary or permanent impacts, over ground or underground, on LAWA property caused by design and construction shall be reviewed and approved by LAWA. Refer to Project Requirements for additional information.
- T. Work can only be performed at night time inside the CTA. Typically, the work window ranges between 12 PM (mid-night) to 8:00 AM in the morning (subject to change related to Airport Operational issues). The start time and end time in a work shift is dictated by LAWA Operations and the Design Builder will be required to coordinate closely with LAWA Operations and contractors performing work in the vicinity. Approved nightly hours of work will vary depending on the season and conditions and are often 5 hours or less. Refer to Project Requirements for more information and other logistical constraints.
- U. No parking shall be provided to the Design Builder in the Central Terminal Area nor are the public parking structures and areas in the CTA to be used for parking by the Design Builder or its sub-contractors or laborers. Design Builder shall provide a Parking Plan which provides for a shuttle; a submittal for LAWA's approval demonstrating how Parking requirements for CTA and non-CTA will be met. Refer to Project Requirements.
- V. No Storage or Laydown area will be provided in the Central Terminal Area of LAX. Storage is to be in the designated laydown areas identified in the Project Requirements.
- W. Design Builder shall access worksites via public roads in compliance with DCH and in coordinating with AHJs.
- X. Haul routes, crew shuttle routes and delivery routes and times of operation shall be coordinated with and approved by AHJs.
- Y. Fencing and barricades requirements per LAWA Design and Construction Handbook (DCH).

1.4 REGULATORY REQUIREMENTS AND STANDARDS

- A. All Work shall meet the requirements of local codes, ordinances, and utility companies except adhere to the Contract Documents when more strict requirements are specified.
- B. LAWA Design and Construction Handbook (DCH) - available at lawa.org
- C. Design and construction shall with the **Requirements for Earthquake Resistant Ductile Iron Pipe (ERDIP)** provided in this RFP.

1.5 QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Quality Assurance

1.6 FIELD QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Field Quality Assurance

1.7 DELIVERY, STORAGE AND HANDLING

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Delivery, Storage and Handling

1.8 LIST OF SCOPING DOCUMENTS

- A. Scoping Drawings 1 – Main
- B. Scoping Drawings 1.1 - CTA INTERFACE WITH PROPOSED DOMESTIC WATER DESIGN-CTA OVERALL
- C. Scoping Drawings 2 - T4 lateral
- D. Scoping Drawings 3 - T5 lateral
- E. Scoping Drawings 4 – T6 lateral
- F. Scoping Drawings 5 – T7 lateral
- G. Scoping Drawings 6 – T8 lateral
- H. Scoping Drawings 7 - SK-1 - Laterals Scope Clarification Sketch

1.9 REFERENCES

Refer to References section.

2 - MATERIALS

- A. Refer to DCH for Materials

3 - EXECUTION

- A. Refer to DCH, Project Requirements and Regulatory Requirements for Execution Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR CTA DOMESTIC WATER PIPE REPLACEMENT

Project 17

CTA04

Fire Water T5.5

PROJECT CRITERIA AND SCOPING MEMO FOR FIRE WATER T5.5

1 - DESCRIPTION

1.1 DESCRIPTION OF WORK

- A. Install only one segment of future Firewater Piping in the Central Terminal Area (CTA)

1.2 REQUIREMENTS SPECIFIC TO CENTRAL TERMINAL AREA DOMESTIC WATER PIPE REPLACEMENT

- A. As shown by the blue line in the Scoping Drawings, work shall include furnishing, installing, and testing of one segment of Firewater piping (the segment may only hereafter be referred to as CTAFW5.5)
- B. Future Fire Water Piping System Project - It is anticipated that the Design Builder will be directed to Design and Build a new Fire Water piping system in the CTA. Piping layout for this future Firewater project, referred to hereafter as CTAFW, is expected to coincide with the piping layout of Central Terminal Area Domestic Water Piping System Project or CTADW (Refer to section of RFP for CTA Domestic Water Piping System). At Proposal time and during design of CTADW, Design Builder shall spatially account for **24 inch Fire Water Earthquake Resistant Ductile Iron Pipe, ERDIP**, to be placed in the same trenches as for CTADW. The actual scope and pricing for CTAFW will be negotiated between LAWA and Design Builder during the Design period for CTADW. Refer to the ERDIP specification contained within this RFP.
- C. CTAFW5.5 to be **subset** of CTAFW - The current CTAFW5.5 Project shall be deemed as a **subset** of the future CTAFW Project. As such, entire run of CTAFW5.5 shall be placed in the same trenches as those for CTADW.
1. CTAFW5.5 branch that shall run along East Way (may only be referred to as the EW Branch) shall be in the same trench as the East Way Mainline of the CTADW.
 2. CTAFW5.5 branch that shall run along World Way (may only be referred to as the WWS Branch) shall be in the same trench as the World Way South Mainline of the CTADW.
- D. EW Branch shall be a 24 inch Ductile Iron Pipe and shall connect to existing 24 inch Firewater pipe (477 pressure zone trunk pipe and may only be referred to hereafter as FW Trunk) that runs through Center Way. Design Builder shall verify the exact POC based on potholing and as built Drawings.
- E. WWS Branch of CTAFW5.5 shall be a 24 inch Earthquake Resistant Ductile Iron Pipe, ERDIP, and shall be installed across the entire width of Terminal 5.5 Core as shown in the Scoping Documents. WWS Branch shall be capped at the western extremity of Terminal 5.5 core until connection is made with the future CTAFW Project (the extent of

WWS Branch across Terminal 5.5 may only be referred to hereafter as T5.5 FW Header).

- F. WWS Branch shall extend out towards the east for 5 feet beyond where EW Branch intersects WWS Branch and be capped for future connection to CTAFW.
- G. CTAFW5.5 shall provide two stub out connections for Terminal 6 (these stub out connections may only be referred to as T6 stubouts).
- H. During Design phase of CTAFW5.5, Design Builder shall coordinate the exact location of T5.5 stub out with LAWA Project Team and LAWA's Terminal Cores Project.
- I. Isolation valves –
 - 1. Isolation valve shall be installed where CTAFW5.5 connects to FW Trunk Line.
 - 2. Isolation valves shall be installed on all three sides of the Tee where WWS Branch meets EW Branch.
 - 3. Isolation valves shall be installed on all three sides of the Tee for T5.5 stubout.
 - 4. Isolation valves shall be installed on all three sides of the Tee for T6 stubouts.
- J. T5.5 Stub Out shall be capped 5 Feet (or other distance as approved by LAWA) away from where the face of the TVC 5.5 Utility Tunnel. Design Builder shall coordinate with TVC 5.5 Project for the exact location of the T5.5 Stubout. T5.5 Stubout shall be built by the contractual milestone date (milestone titled 'Fire Water T5.5).
- K. Unless otherwise specified, CTAFW5.5 piping shall be 24 inch Earthquake Resistant Ductile Iron Pipe, ERDIP,. Refer to applicable sections of Guide Specifications and Design Requirements of LAWA Design and Construction Handbook (DCH) for more detail.
- L. Pipe cleaning, disinfection flushing and testing as required by AHJ -
 - 1. Provide full size flushing connections for pipe cleaning.
 - 2. Design Builder shall Hydro test as required by DCH, Authority Having Jurisdiction (AHJ) and Pipe Manufacturer.
 - 3. Design Builder shall provide chlorination and any other pipe cleaning/disinfection as required by DCH, AHJ and Pipe Manufacturer.
 - 4. Design Builder shall flush and dispose the water as required by AHJs and LAWA.
 - 5. Design Builder shall provide its own water for testing, cleaning and flushing.
 - 6. Staging areas shall be developed and set up by Design Builder for testing, cleaning and flushing such that number of closures are minimized. No extra payments for LAWA imposed restrictions during testing, cleaning and flushing operations.

1.3 COMMON REQUIREMENTS FOR ALL UTILITY PROJECTS IN THE CENTRAL TERMINAL AREA

- A. Proposal Time Validation and Initial Refinements - Proposed utility horizontal alignments (henceforth referred to as alignments), as shown in the scoping drawings, are conceptual in nature and only meant to convey LAWA's Requirements. **Prior to Proposal**, Design Builder shall validate and refine those alignments based on the available subsurface structures (including but not limited to Foundations for Automated People Mover Guideway, Roadways and Ped Bridges) and utilities information and investigation of surface site conditions. The vertical profiles for proposed utilities, if provided in the scoping drawings, are conceptual in nature as well. **Prior to proposal**, Design Builder shall validate, refine and design the profiles based on utility conflicts and other criteria. At Proposal time, all knowable/discoverable conditions shall be deemed to be accounted for in the Proposal and therefor no extra payments will be made for the aforementioned initial refinements in design. Any later stage (post award) refinements or design evolutions, which are based on discovery of unforeseen or differing site conditions, will be dealt under other provisions of the Contract/RFP. Design Builder shall coordinate closely with LAWA and its stakeholders and obtain LAWA's prior approval during **Conceptual Design phase** before finalizing the alignments.
- B. Location of Underground utilities – Design Builder shall account for standard locational variability of the subsurface utilities during the aforementioned proposal time validation and initial refinements. No extra payments will be made for changing of design that does not account for such standard locational variability. Refer to Project Requirements.
- C. It is incumbent on Design Builder to verify the actual location of Points of Connection. Design Builder shall validate the Points of Connection in the field and provide initial refinements based on actual points of Connection, available subsurface utilities information and investigation of surface site conditions. No extra payments will be made for such initial refinements in design. Refer to the section on Proposal Time Validation and Initial Refinements.
- D. All potholing and other forms of subsurface utility investigation in support of design, including such investigation of utilities that are shown on the plans, shall be considered incidental to the associated work items and no separate payment shall be made. Potholing and other forms of subsurface utility investigation of utilities that are not shown on the plans shall be approved by LAWA for cost and scope prior to Design Builder proceeding with such investigation work. Potholing and other subsurface investigation of utilities will be in unpaved and paved areas. Refer to Project Requirements for additional Requirements.

- E. LAWA shall conduct mandatory Pre Proposal Job walks for the potential proposers. Irrespective of LAWA issuing any addenda, proposers shall be deemed to have validated the entire scope and physical conditions during those Job walks.
- F. This Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and Scoping Drawings.
- G. In addition to requirements laid down in this Scoping Memo, the Design and Construction of utilities shall conform to applicable sections of **Guide Specifications, Design Requirements and Construction Requirements** as laid down in the **LAWA Design and Construction Handbook**. LAWA Design and Construction is available on lawa.org. This document may also just be referred to as DCH.
- H. The information listed in the Scoping Memo, including Description, Materials and Execution, lays down minimum requirements. Refer to Regulatory Requirements, DCH and Project Requirements for additional requirements. No extra payments will be made for requirements not listed in this Scoping Memo.
- I. In case of discrepancy between the Scoping Memo, Regulatory Requirements, Authority Having Jurisdiction, Project Requirements, DCH and Manufacturer provided information, the more stringent of the requirements shall be applicable. No extra payments will be made for following the more stringent of the requirements.
- J. The 'Engineer', as referred to in the Scoping Drawings, is meant to be Design Builder's Engineer of Record (EOR) for the project.
- K. All appurtenances, whether listed or not listed in the Scoping Memo or Drawings and as required for a complete and operable system, are to be furnished and installed.
- L. Pipe Base Bedding – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent.
- M. Trench Backfilling – as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is stringent
- N. Cast in Place Concrete - as required by Scoping Drawings, Regulatory Requirements, DCH, Authority having jurisdiction or Pipe Manufacturer, whichever is more stringent
- O. Traffic Control – Design Builder shall note following:
 - 1. Traffic Control, as shown on Scoping Drawings, is for information only. Design Builder shall design its own Traffic Control and obtain necessary approvals before commencing with work. No extra payments will be made. Refer to Project Requirements for additional requirements.

2. No permanent roadway lane closures are allowed in the Central Terminal Area. Design Builder shall phase the work in such a manner that trenches can be plated and the lanes be fully reopened to traffic after nightly work
 3. At no time, shall more than one lane in a certain direction of traffic be allowed to close unless approved by LAWA.
 4. A substantial amount of CTA Utilities work will take place under the Second Level Roadway. Design Builder shall investigate the availability of vertical clearance and accordingly choose the Construction equipment.
- P. Staging and Phasing of Work – Staging and Phasing of Work, shown on Scoping Drawings, is for information only. Design Builder shall come up its own Staging and Phasing. A Project Phasing Document and a fully documented Logistical Work Plan Checklist shall be submitted to LAWA CALM Management Team for approval. No extra payments will be made. Refer to Project Requirements for additional requirements.
- Q. **Special Coordination with Automated People Mover (APM) Project** – Design Builder shall be required to coordinate closely with LINXX (the Developers of the APM Project). Irrespective of LAWA's commitment to Design Builder about scheduled availability of construction areas elsewhere in the Contract, Design Builder shall the notify APM Team and LAWA one month in advance of any work planned in APM Project's Design and Construction Limits. Refer to APM/LINXX's Design and Construction Limits as provided in the RFP Documents.
- R. Removal/Restoration of Pavements, Striping, Landscaping and other items – The pavement removals and restoration of pavements, landscaping, security bollards and other items are considered incidental to the associated work items and no extra payments will be made. Except for materials which are to be stockpiled outside the CTA, crushed and/or recycled, all other items removed to allow construction of the project shall be removed and legally disposed of off the airport property. Pavements, striping, Landscaping, security bollards and other surface and subsurface items shall be restored to original condition. Refer to Project Requirements for additional requirements.
- S. Any temporary or permanent impacts, over ground or underground, on LAWA property caused by design and construction shall be reviewed and approved by LAWA. Refer to Project Requirements for additional information.
- T. Work can only be performed at night time inside the CTA. Typically, the work window ranges between 12 PM (mid-night) to 8:00 AM in the morning (subject to change related to Airport Operational issues). The start time and end time in a work shift is dictated by LAWA Operations and the Design Builder will be required to coordinate closely with LAWA Operations and contractors performing work in the vicinity. Approved nightly hours of work will vary depending on the season and conditions and are often 5 hours or less. Refer to Project Requirements for more information and other logistical constraints.

- U. No parking shall be provided to the Design Builder in the Central Terminal Area nor are the public parking structures and areas in the CTA to be used for parking by the Design Builder or its sub-contractors or laborers. Design Builder shall provide a Parking Plan which provides for a shuttle; a submittal for LAWA's approval demonstrating how Parking requirements for CTA and non-CTA will be met. Refer to Project Requirements.
- V. No Storage or Laydown area will be provided in the Central Terminal Area of LAX. Storage is to be in the designated laydown areas identified in the Project Requirements.
- W. Design Builder shall access worksites via public roads in compliance with DCH and in coordinating with AHJs.
- X. Haul routes, crew shuttle routes and delivery routes and times of operation shall be coordinated with and approved by AHJs.
- Y. Fencing and barricades requirements per LAWA Design and Construction Handbook (DCH).

1.4 REGULATORY REQUIREMENTS AND STANDARDS

- A. All Work shall meet the requirements of local codes, ordinances, and utility companies except adhere to the Contract Documents when more strict requirements are specified.
- B. LAWA Design and Construction Handbook (DCH) - available at lawa.org
- C. Design and construction shall with the **Requirements for Earthquake Resistant Ductile Iron Pipe (ERDIP)** provided in this RFP.

1.5 QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Quality Assurance

1.6 FIELD QUALITY ASSURANCE

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Field Quality Assurance

1.7 DELIVERY, STORAGE AND HANDLING

- A. Refer to DCH, Project Requirements and Manufacturer's recommendations for Delivery, Storage and Handling

1.8 LIST OF SCOPING DOCUMENTS

- A. Scoping Drawings 1 – Main and CTA INTERFACE WITH PROPOSED FIRE WATER DESIGN-CTA OVERALL

1.9 REFERENCES

Refer to References section.

2 - MATERIALS

- A. Refer to DCH for Materials

3 - EXECUTION

- A. Refer to DCH, Project Requirements and Regulatory Requirements for Execution Requirements.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR FIRE WATER TO T5.5

Project 18

**Qwest Fiber Optic Lowering
(Allowance)**

PROJECT CRITERIAL AND SCOPING MEMO FOR: R20/R25 – NEW 98TH QUEST LOWERING

1. PROJECT DESCRIPTION:

The Design Builder will negotiate and complete an agreement with Quest Communicaitons to lower the Quest Communications fiber optic ductbank to allow construction of the relocated 108 inch LACFCD storm drain.

1.1 GENERAL REQUIREMENTS

- A. Work shall include negotiating and completing the draft agreement with Quest Communication, the completed agreement will be between the Design Builder and Quest.
- B. Costs contained in the Quest agreement will be paid with the allowance indicated in the Project Requirements Allowance for this item.
- C. The Scoping Memo shall govern in case there is a contradiction between the Scoping Memo and permit drawings.
- D. Based on the current draft agreement Quest will be preforming the lowering of their facility.
- E. The Design Builder will be responsible for obtaining all necessary permits and permissions necessary for Quest Communication to preform their work.
- F. Traffic Control – as required by the AHJ.
- G. Authorities Having Jurisdiction (AHJ).
 - a. Quest Communications
 - b. Los Angeles Bureau of Engineering (LABOE)
 - c. Los Angeles Department of Transportation (LADOT)
 - d. Los Angeles Bureau of Street Lighting (LABSL)
 - e. Los Angeles Department of Water and Power (LADWP)
 - f. Los Angeles Bureau of Street Services (LABSS)
 - g. Los Angeles County Flood Control District (LACFCD)
 - h. Major Transit And Transportation Construction Traffic Management Committee
 - i. Los Angeles Fire Department
 - j. Los Angeles World Airports (LAWA)
 - k. South Coast Air Quality Management District

H. Technical Specifications List

The technical specifications and standard plans for this project include are not limited to:

- a. American Public Standard specifications for Public Works Construction, "Green Book", latest edition and supplements
 - b. Los Angeles County Department of Public Works, Additions and Amendments to the Standard Specifications for Public Works Construction (Graybook)
 - c. City of Los Angeles Department of Public Works, Standard Specification for
 - d. Public Works Construction, "Brown Book", additions and amendments to the
 - e. latest edition
 - f. City of Los Angeles Bureau of Engineering Specifications
 - g. Los Angeles Department of Transportation, Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals
 - h. City of Los Angeles Bureau of Street Lighting Special Specifications for the Construction of Street
 - i. Lighting Systems (Blue Book)
 - j. City of Los Angeles Board of Public Works, Enhanced Electrical Safety Policy (Red Book)
 - k. City of Los Angeles Bureau of Engineering Standard Plans
- I. Required permits include, but are not limited to:
- a. "U" Permit (LABOE)
 - b. "E" Permit (LABOE)
 - c. Transportation Construction Traffic Management Committee Permit (TCTMC)
 - d. Temporary Street Closure Permit (LABSS)
- J. All potholing in support of design, including that of utilities shown on the plans, shall be considered incidental to the associated work items and no separate payment will be made. Potholing of utilities not shown on the plans shall be approved by LAWA prior to proceeding with the work. Potholing for utilities will be in unpaved and in paved areas.
- K. Location of Underground utilities – based on research and pot holing by the Design Builder.
- L. Design/Builder shall coordinate the design with the APM, ConRAC, Metro Crenshaw and ITFE projects.
- M. Design shall coordinate this design with other RUE design/build projects: 98th Street C1A, 98th Street C1B and C2 Roadway packages, I-405 Ramp Widening, 98th Street 12 inch water line, La Cienega 12 inch water, 34.5 Kva ductbank, Charter Communications ductbank, 4/6 inch reclaimed water, 98th Street sewer, and the 108 inch storm drain relocation.

1.2 SUBMITTALS

- A. Conform to requirements of the Project Requirements and the AHJ.

1.3 REGULATORY REQUIREMENTS

Design guidelines and requirements for this project

- A. City of Los Angeles Complete Streets Design Guide
- B. City of Los Angeles Bureau of Engineering Street Design Manual Conform to requirements of the Project Requirements and the AHJ
- C. Los Angeles Department of Transportation Application and Design Guidelines for Striping, Channelization and Special Signing
- D. City of Los Angeles Department of Transportation Traffic Signal Design Guidelines
- E. City of Los Angeles Bureau of Street Lighting Design Standards and Guidelines
- F. California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition
- G. Caltrans Highway Design Manual (Latest Edition)
- H. Work Area Traffic Control Handbook (WATCH), latest revision, as adapted by the City of Los Angeles
- I. Board of Public Works and the Department of Transportation
- J. City of Los Angeles Department of Transportation Drafting Standards for Striping & Signal Plans.
- K. Conform to Project Requirements and the requirements of the AHJ.

1.4 QUALITY ASSURANCE

- A. Conform to requirements of the Project Requirements and the AHJ Requirements Quality Assurance and Quality Control requirements..

1.5 FIELD QUALITY ASSURANCE

- A. Field Quality Assurance shall be in compliance with Conform to requirements of the Project Requirements and the AHJ requirements.

1.6 DELIVERY, STORAGE AND HANDLING

- A. At the location indicated in the Project Requirements.

1.7 Scoping Documents

- A. N.543671-CONS
- B. URA 119142 LAWA 98TH PRIOR RIGHTS

1.8 REFERENCE DOCUMENTS

- 34.5kva Aviation*

- APM 90% Submittal*
- CenturyLink Ductbank*
- Communication Ductbank Aviation*
- Metro - Crenshaw LRT Plans*
- MOA LAWA LADWP*
- Scattergood 1*
- Scattergood 2*
- SCG 2 - 30 inch Gas*
- SCG 10 inch Gas*
- Shoofly
- TREE REMOVAL PERMIT - 1-1312128231*
- U21-Century Pipeline*
- LULEP Plan Check Permit Log 01222020*
- APM - LULEP Memorandum of Understanding regarding Infrastructure Interfaces on Aviation Boulevard 12 4 2018*
- City (BOE,DOT,BSS,BSL,BOS) Submittal Streamline Flow Chart*
- LAMP Master MOU between the City of Los Angeles Dept of Airports and the City of Los Angeles Departments 022417-OCR Text*
- executed MCA LAMP and AMC Station*
- Cad Files*

* - These files are provided with the 98C1A project files

2.0 MATERIALS

2.1 Comply with requirements of the Quest Communication, Project Requirements and the AHJ requirements.

EXECUTION

3.1 Complete design and obtain all required permits.

3.2 Schedule and construct work.

3.3 Obtain acceptance of completed work and close permit.

END OF PROJECT CRITERIA AND SCOPING MEMO FOR NEW 98TH QUEST LOWERING