



Donald P. Wagner
Mayor/Chairman

Christina Shea
Mayor Pro Tem/Vice Chairwoman

Melissa Fox
Councilmember/Boardmember

Jeffrey Lalloway
Councilmember/Boardmember

Lynn Schott
Councilmember/Boardmember

AGENDA

CITY COUNCIL REGULAR MEETING AND REGULAR JOINT MEETING WITH THE CITY OF IRVINE AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY

July 10, 2018

4:00 PM

City Council Chamber
One Civic Center Plaza
Irvine, CA 92606

Speaker's Card/Request to Speak: If you would like to address the City Council / Successor Agency on a scheduled agenda item – including a Consent Calendar item, Business item, a Public Hearing item, or Public Comments – please complete the [Request to Speak Form](#). The card is at the table at the entrance to the City Council Chamber. Please identify on the card your name and the item on which you would like to speak and return to the City Clerk / Agency Secretary. The [Request to Speak Form](#) assists the Mayor / Chair in ensuring that all persons wishing to address the City Council / Successor Agency are recognized. It also ensures the accurate identification of meeting participants in the City Council / Successor Agency minutes. Your name will be called at the time the matter is heard by the City Council / Successor Agency. City policy is to limit public testimony to up to three minutes per speaker depending on relevant circumstances (unless the time limit is extended by the Mayor / Chair), which includes the presentation of electronic or audio visual information. Speakers may not yield their time to other persons.

Please take notice that the order of scheduled agenda items below and/or the time they are actually heard, considered and decided may be modified by the Mayor / Chair or the City Council / Successor Agency Board during the course of the meeting, so please stay alert.

CALL TO ORDER

ROLL CALL

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of the City Council and Successor
Agency Agenda and staff reports.



1. CLOSED SESSION

1.1 CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION - Pursuant to Government Code Section 54956.9(d)(1) – Mary Ann Gaido v. Molly McLaughlin, City Clerk of the City of Irvine, Neal Kelley, Orange County Registrar of Voters, et al., Orange County Superior Court Case No. 30-2018-00972013-CU-JR-CJC

RECONVENE TO THE CITY COUNCIL MEETING

PLEDGE OF ALLEGIANCE

INVOCATION

CITY MANAGER'S REPORT

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Announcements, Committee Reports and Council/Agency Comments are for the purpose of presenting brief comments or reports, are subject to California Government Code Section 54954.2 of the Brown Act and are limited to 15 minutes per meeting.

ADDITIONS AND DELETIONS

Additions to the agenda are limited by California Government Code Section 54954.2 of the Brown Act and for those items that arise after the posting of the Agenda and must be acted upon prior to the next City Council meeting.

CONVENE TO THE REGULAR JOINT MEETING

2. CONSENT CALENDAR - CITY COUNCIL

All matters listed under Consent Calendar are considered by the City Manager to be routine and enacted by one roll call vote. There will be no discussion of these items unless members of the City Council request specific items to be removed from the Consent Calendar for separate discussion. Any member of the public may address the Council on items on the Consent Calendar. See information for Speaker's Card/Request to Speak on first page.

2.1 MINUTES

ACTION:

Approve the minutes of a regular meeting of the Irvine City Council and regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency held on June 26, 2018.

2.2 WARRANT AND WIRE TRANSFER RESOLUTION

ACTION:

Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND DEMANDS AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

2.3 ADOPTION OF RESOLUTION DECLARING THE RESULTS OF THE SPECIAL MUNICIPAL ELECTION HELD ON JUNE 5, 2018 REGARDING MEASURES B, C, AND D

ACTION:

- 1) Receive and file the Certificate of Results for the Special Municipal Election held on June 5, 2018 for Ballot Measures B, C, and D.
- 2) Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, RECITING THE FACT OF THE SPECIAL MUNICIPAL ELECTION HELD ON JUNE 5, 2018, DECLARING THE RESULT AND SUCH OTHER MATTERS AS PROVIDED BY LAW

2.4 APPROVAL OF SPECIFICATIONS AND CONTRACT DOCUMENTS FOR THE ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT

ACTION:

- 1) Approve the specifications and contract documents for the Annual Street Rehabilitation and Slurry Seal Capital Improvement Project 311901.
- 2) Approve the Engineer's Estimate, Construction Contingency and Funding Summary.
- 3) Authorize the City Manager to execute the Reimbursement Agreement with Irvine Ranch Water District for installation and adjustment of water facilities within the project area.
- 4) Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder in accordance with the City's purchasing policies and procedures, within the approved project budget.

2.5 APPROVAL OF PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS FOR TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS

ACTION:

- 1) Approve the construction plans, specifications and contract documents for Turtle Rock Community Park Accessibility Improvements, Capital Improvement Projects 361705 and 361813.
- 2) Approve the Engineer's Estimate, Construction Contingency and Project Funding Summary.
- 3) Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

2.6 AWARD OF CONSTRUCTION CONTRACT FOR CULVER/UNIVERSITY INTERSECTION IMPROVEMENTS

ACTION:

- 1) Approve and authorize the Mayor to execute a construction contract with Beador Construction Company, Inc., the lowest responsive and responsible bidder, in the amount of \$3,549,300 for the Culver/University Intersection Improvements, Capital Improvement Project 318030.
- 2) Authorize the City Manager to execute the Reimbursement Agreement with Irvine Ranch Water District for the installation and adjustment of water facilities within the project area.
- 3) Approve the Revised Project Funding Summary.

2.7 SECOND READING OF ORDINANCE NO. 18-07 DIRECTING AN AMENDMENT TO THE "CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS," AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS

ACTION:

Read by title only, second reading and adoption of ORDINANCE NO. 18-07 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DIRECTING AN AMENDMENT TO THE "CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS," AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS

3. CONSENT CALENDAR - SUCCESSOR AGENCY

All matters listed under Consent Calendar are considered by the Executive Director to be routine and enacted by one roll call vote. There will be no discussion of these items unless members of the Agency request specific items to be removed from the Consent Calendar for separate discussion. Any member of the public may address the Agency on items on the Consent Calendar. See information for Speaker's Card/Request to Speak on first page.

3.1 MINUTES

ACTION:

Approve the minutes of the regular joint meeting of the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency with the Irvine City Council held on June 26, 2018.

3.2 WARRANT AND WIRE TRANSFER RESOLUTION – CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY

ACTION:

Adopt – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ALLOWING CERTAIN CLAIMS AND DEMANDS OF THE CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

PUBLIC COMMENT - SUCCESSOR AGENCY (LIMITED TO 3 MINUTES PER SPEAKER)

Any member of the public may address the Successor Agency on items within the Successor Agency's subject matter jurisdiction but which are not listed on this agenda during Public Comments; however, no action may be taken on matters that are not part of the posted agenda. See information for Speaker's Card/Request to Speak on the first page.

ADJOURNMENT - REGULAR JOINT MEETING

RECONVENE TO THE CITY COUNCIL MEETING

4. COUNCIL BUSINESS

4.1 AGREEMENT FOR THE EMPLOYMENT OF CITY MANAGER OF THE CITY OF IRVINE

ACTION:

Approve Agreement for Employment of City Manager between City of Irvine and John A. Russo.

4.2 HERITAGE PARK LIBRARY RENOVATION FUNDING

ACTION:

City Council discussion and direction of Councilmember Fox's and Councilmember Schott's request to provide funding for Heritage Park Library Renovation.

4.3 CONSIDERATION OF MAYOR WAGNER'S REQUEST FOR A LETTER OF SUPPORT TO THE ORANGE COUNTY SANITATION DISTRICT FOR ITS WATERSMART TITLE 16 GRANT APPLICATION

ACTION:

City Council discussion and direction.

4.4 CONSIDERATION OF COUNCILMEMBER LALLOWAY'S REQUEST FOR DISCUSSION OF THE VETERANS CEMETERY

ACTION:

City Council discussion and direction.

PUBLIC COMMENT-CITY COUNCIL - Public comments will be heard at approximately 6:30 p.m. or prior to adjournment, whichever occurs earlier.

Any member of the public may address the City Council on items within the City Council's subject matter jurisdiction but which are not listed on this agenda during Public Comments; however, no action may be taken on matters that are not part of the posted agenda. See information for Speaker's Card/Request to Speak on the first page.

ADJOURNMENT-CITY COUNCIL

NOTICE TO THE PUBLIC

LIVE BROADCASTING AND REBROADCASTING

Regular City Council and Successor Agency meetings are broadcast live every 2nd and 4th Tuesday of the month at 4 p.m. and are replayed on Tuesdays at 4 p.m. (in weeks in which there is not a live City Council and/or Successor Agency meeting), Sundays at 11 a.m., Wednesdays at 7 p.m., and Thursdays at 10 a.m. until the next City Council / Successor Agency meeting. All broadcasts can be viewed on Cox Communications Local Access Channel 30 and U-Verse Channel 99. City Council meetings are also available via live webcast and at any time for replaying through the City's ICTV webpage at cityofirvine.org/ictv. For more information, please contact the City Clerk's office at (949) 724-6205.

ADJOURNMENT

At 11:00 p.m., the City Council / Successor Agency will determine which of the remaining agenda items can be considered and acted upon prior to 12:00 midnight and will continue all other items on which additional time is required until a future City Council / Successor Agency meeting. All meetings are scheduled to terminate at 12:00 midnight.

STAFF REPORTS

As a general rule, staff reports or other written documentation have been prepared or organized with respect to each item of business listed on the agenda. Copies of these materials are on file with the City Clerk and are available for public inspection and copying once the agenda is publicly posted, (at least 72 hours prior to a regular City Council / Successor Agency meeting). Staff reports can also be downloaded

from the City's website at cityofirvine.org beginning the Friday prior to the scheduled City Council / Successor Agency meeting on Tuesday.

In addition, meetings can be viewed live at the time posted on the agenda and related staff reports can be opened and viewed simultaneously along with the streaming of the meeting. To view the meeting, go to cityofirvine.org/ictv.

If you have any questions regarding any item of business on the agenda for this meeting, or any of the staff reports or other documentation relating to any agenda item, please contact City Clerk staff at (949)724-6205.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the City Council / Successor Agency regarding any item on this agenda after the posting of the agenda will be available for public review in the City Clerk's Office, One Civic Center Plaza, Irvine, California, during normal business hours. In addition, such writings or documents will be made available for public review at the respective public meeting.

If you have any questions regarding any item of business on the agenda for this meeting, or any of the staff reports or other documentation relating to any agenda item, please contact City Clerk staff at (949)724-6205.

SUBMITTAL OF INFORMATION BY MEMBERS OF THE PUBLIC FOR DISSEMINATION OR PRESENTATION AT PUBLIC MEETINGS

Media Types and Guidelines

1. Written Materials/Handouts:

Any member of the public who desires to submit documentation in hard copy form may do so prior to the meeting or at the time he/she addresses the City Council / Successor Agency. Please provide 15 copies of the information to be submitted and file with the City Clerk at the time of arrival to the meeting. This information will be disseminated to the City Council / Successor Agency Board at the time testimony is given.

2. Large Displays/Maps/Renderings:

Any member of the public who desires to display freestanding large displays or renderings in conjunction with their public testimony is asked to notify the City Clerk's Office at (949)724-6205 no later than 12:00 noon on the day of the scheduled meeting so that an easel can be made available, if necessary.

3. Electronic Documents/Audio-Visuals:

Any member of the public who desires to display information electronically in conjunction with their public testimony is asked to submit the information to the Public Information Office (PIO) no later than 12:00 noon on the day of the scheduled meeting. To facilitate your request contact the PIO Office at (949)724-6253 or the City Clerk's Office at (949)724-6205.

Information must be provided on CD, DVD, or VHS; or, emailed by 12:00 noon on the day of the scheduled meeting to pio@ci.irvine.ca.us. Members of the public will be asked to provide their name, identify the meeting and the agenda item to be addressed, and a day time phone number.

The PIO office will notify the person submitting the information as soon as possible prior to the meeting if the information cannot be accessed or if the version provided is incompatible with the City's system. Every effort will be made by City staff to facilitate the presentation.

CITY SERVICES TO FACILITATE ACCESS TO PUBLIC MEETINGS

It is the intention of the City of Irvine to comply with the Americans With Disabilities Act (ADA) in all respects. If, as an attendee or a participant at this meeting, you will need special assistance beyond what is normally provided, the City of Irvine will attempt to accommodate you in every reasonable manner. Please contact the City Clerk's Office at (949)724-6205.

Assisted listening devices are available at the meeting for individuals with hearing impairments. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35. 102-35. 104 ADA Title II)

CHALLENGING CITY DECISIONS

The time limit within which to commence any lawsuit or legal challenge to any quasi-adjudicative decision made by the City is governed by Section 1094.6 of the Code of Civil Procedure, unless a shorter limitations period is specified by any other provision. Under Section 1094.6, any lawsuit or legal challenge to any quasi-adjudicative decision made by the City must be filed no later than the 90th day following the date on which such decision becomes final. Any lawsuit or legal challenge that is not filed within this 90-day period will be barred.

If a person wishes to challenge the nature of the above actions in court, they may be limited to raising only those issues they or someone else raised at the meeting described in this notice, or in written correspondence delivered to the City of Irvine, at or prior to the meeting. In addition, judicial challenge may be limited or barred where the interested party has not sought and exhausted all available administrative remedies.

COMMUNICATION AND ELECTRONIC DEVICES

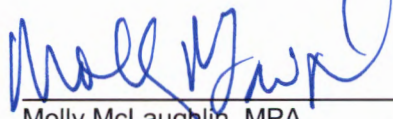
To minimize distractions, please be sure all personal communication and electronic devices are turned off or on silent mode.

MEETING SCHEDULE

Regular meetings of the City Council / Successor Agency are held on the second and fourth Tuesdays of each month at 4:00 p.m. Study Sessions and/or Closed Sessions are periodically held prior to the start of the regular meeting. Agendas are available at the following locations:

- City Clerk's Office
- Police Department
- Front Entrance of City Hall
- University Park Center (Culver/Michelson)
- Walnut Village Center (Culver/Walnut)
- Northwood Town Center (Irvine Blvd./Yale)
- City's web page at www.ci.irvine.ca.us

I hereby certify that the agenda for the Regular City Council / Successor Agency meeting was posted in the posting book located in the Public Safety Lobby and at the entrance of City Hall, One Civic Center Plaza, Irvine, California on July 5, 2018 by 8:30 PM as well as on the City's web page.


Molly McLaughlin, MPA
City Clerk / Successor Agency Secretary

CLOSED SESSION

1.1


2.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: MINUTES

 ASST CITY CLERK

City Clerk

RECOMMENDED ACTION:

Approve the minutes of a regular meeting of the Irvine City Council and regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency held on June 26, 2018.



MINUTES

**CITY COUNCIL
REGULAR MEETING
AND
REGULAR JOINT MEETING
WITH THE
CITY OF IRVINE AS SUCCESSOR
AGENCY TO THE DISSOLVED
IRVINE REDEVELOPMENT AGENCY**

**June 26, 2018
City Council Chamber
One Civic Center Plaza
Irvine, CA 92606**

CALL TO ORDER

The regular meeting of the Irvine City Council and regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency was called to order at 4:08 p.m. on June 26, 2018 in the City Council Chamber, Irvine Civic Center, One Civic Center Plaza, Irvine, California; Mayor/Chairman Wagner presiding.

ROLL CALL

Present:	4	Councilmember/Boardmember:	Melissa Fox
		Councilmember/Boardmember:	Jeffrey Lalloway
		Mayor Pro Tempore/Vice Chairwoman:	Christina Shea
		Mayor/Chairman:	Donald P. Wagner
Absent:	1	Councilmember/Boardmember:	Lynn Schott

1. CLOSED SESSION

City Attorney Melching announced the following Closed Session item:

- 1.1 CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Section 54956.9: one potential case**
- 1.2 CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Initiation of litigation pursuant to Government Code Section 54956.9(d)(4): two potential cases**
- 1.3 PUBLIC EMPLOYEE APPOINTMENT: Government Code Section 54957 - Title: City Manager**

RECESS

Mayor Wagner convened the City Council meeting to Closed Session at 4:09 p.m.

RECONVENE TO THE CITY COUNCIL MEETING

Mayor Wagner reconvened the City Council meeting at 6:08 p.m. City Attorney Melching, on behalf of the City Council, announced that no reportable action was taken in Closed Session.

PLEDGE OF ALLEGIANCE

Councilmember Lalloway led the Pledge of Allegiance.

INVOCATION

Mayor Wagner provided the invocation.

2. PRESENTATIONS

- 2.1 Presentation by Orange County District Attorney Tony Rackauckas on Rehabilitation Exploitation and Health Care Trafficking**

Mayor Wagner noted that Orange County District Attorney Tony Rackauckas was unable to attend the City Council meeting.

CITY MANAGER'S REPORT

There was no report.

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Mayor Pro Tempore Shea noted a recent conflict-of-interest complaint filed with the Fair Political Practices Commission (FPPC) against her and Councilmember Fox, who serve as the City's representatives to the Irvine Community Land Trust (ICLT), for participating in a discussion and vote at the prior City Council meeting to allocate funding to the ICLT from Fund 113 for affordable housing. Jeff Melching, City Attorney, opined on why he believed the matter was not a conflict-of-interest, to which Councilmember Shea asked that he provide a written legal opinion to the FPPC.

Councilmember Fox, as the City's representative to the Newport Bay Watershed Committee, provided a summary of accomplishments and projects underway by the Committee.

Mayor Wagner noted that the Orange County Board of Supervisors took action earlier in the day to investigate an alternative site for an Orange County veterans cemetery proposed by Orange County Supervisor Todd Spitzer; and made the following announcements:

- The Irvine Police Association will present the 34th annual Concert on the Green and Fireworks Festival on Wednesday, July 4 at the Irvine High School Stadium. The festivities begin at 3 p.m. and wrap up at 9 p.m. with a Musical Sky Concert and Fireworks Extravaganza. The day includes live music by the Derek Bordeaux Group, a food court, games and activities for children, and the presentation of the colors by the Irvine Police Department Honor Guard. Tickets are available at the Community Services Department front counter, by calling 949-724-0488, or visiting irvinepa.org/events.
- The City's popular Sizzlin' Summer Concerts begin at Mike Ward Community Park – Woodbridge on Sunday, July 8, with the Smith Band and their modern country music. The community is invited to a series of six free, family-friendly concerts in the park covering a variety of musical tastes, from pop variety and dance hits to classical symphony and classic rock. Gourmet food trucks and a children's play area are part of the festivities, which begin at 5:30 p.m. For information and a full concert series schedule, visit cityofirvine.org/play.
- Another 48 acres of amenities are now open at the Orange County Great Park Sports Complex. As of June 15, residents and local sports organizations have taken advantage of six new synthetic soccer/lacross fields, a natural turf flex field that can accommodate four additional soccer fields, and four basketball courts. The additional acres add to the existing 53 acres that opened in August 2017 as part of the developing Sports Complex that enhances the Great Park's 1,300 acres. In all, 130 acres of new playfields and trails are scheduled to open this year. Visit ocgp.org for a complete list of park amenities.

- Irvine was named one of the best cities in the country for young families, according to the consumer research group ValuePenguin, ranking 15 out the 318 largest cities in the United States based on several factors, which include economic opportunity, education, health and safety. The ranking is further evidence that schools, economy, public safety, dedicated open space, and diversity set Irvine apart and make the City one of the best cities for young families looking to live, work, and play.

ADDITIONS AND DELETIONS

There were no additions or deletions.

CONVENE TO THE REGULAR JOINT MEETING

Mayor/Chairman Wagner convened to the regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency at 6:20 p.m.

3. CONSENT CALENDAR - CITY COUNCIL

ACTION: Moved by Mayor Pro Tempore/Vice Chairwoman Shea, seconded by Councilmember/Boardmember Lalloway, and unanimously carried by those members present (Councilmember/Boardmember Schott absent), to approve City Council Consent Calendar Item Nos. 3.1 through 3.13, and Successor Agency Consent Calendar Item Nos. 4.1 and 4.2, with the exception of City Council Consent Calendar Item Nos. 3.5, 3.6, 3.9, and 3.11, which were removed for separate discussion.

3.1 MINUTES

ACTION:

- 1) Approved the minutes of a special meeting of the Irvine City Council held on June 5, 2018.
- 2) Approved the minutes of a special meeting of the Irvine City Council held on June 12, 2018.
- 3) Approved the minutes of a regular meeting of the Irvine City Council and special joint meeting with the Orange County Great Park Board held on June 12, 2018.

3.2 WARRANT AND WIRE TRANSFER RESOLUTION

ACTION:

Adopted RESOLUTION NO. 18-53 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND DEMANDS AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

3.3 DEFINED BENEFIT AND DEFINED CONTRIBUTION PENSION PLAN AUDITS FOR THE YEAR ENDED DECEMBER 31, 2017

ACTION:

Received and filed the Defined Benefit and the Defined Contribution Pension Plan audits for the year ended December 31, 2017.

3.4 FINAL REPORT AND DECLARATION OF SURPLUS FOR ASSESSMENT DISTRICT NO. 07-22 (STONEGATE)

ACTION:

- 1) Received and filed the Final Report for Assessment District No. 07-22 (Stonegate).
- 2) Adopted RESOLUTION NO. 18-54 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DECLARING A SURPLUS IN THE IMPROVEMENT FUND FOR THE CITY OF IRVINE ASSESSMENT DISTRICT NO. 07-22

3.5 PISTOIA APARTMENTS DENSITY BONUS HOUSING AGREEMENT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who noted that more information related to the Density Bonus agreement was needed to address development density and traffic impacts.

Judith Gass spoke in support of affordable housing and raising its allocation to over ten percent, but expressed concern about proximity to schools and associated traffic concerns.

City Council discussion included: suggesting the item be continued for 60 to 90 days for additional analysis; reiterated that the State of California determines the required number of affordable homes; noted that the agreement had been pending for several years; and questioned project status and potential consequences if approval of the agreement was delayed.

Ray Timmons and Johnny Lu, representing 17422 Derian, Irvine, LLC, provided a brief status of the project and potential consequences if approval of the agreement was delayed.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Lalloway, and unanimously carried by those members present (Councilmember Schott absent), to:

Direct staff to return to the City Council within 60 days with more detail regarding density bonus, any flexibility the City has with the State with these density bonuses, and any other nuances the City Council needs to understand regarding the uniqueness of the project structure.

3.6 MILANI APARTMENTS DENSITY BONUS HOUSING AGREEMENT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who expressed similar concerns to the Pistoia Apartments Density Bonus Agreement (Consent Calendar Item No. 3.5), and asked that similar action be taken to continue the matter and direct staff to return within 60 days with additional analysis.

There was no City Council discussion.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Fox, and to:

Direct staff to return to the City Council within 60 days with more detail regarding density bonus, any flexibility the City has with the State with these density bonuses, and any other nuances the City Council needs to understand regarding the uniqueness of the project structure.

The motion carried as follows:

AYES: 3 COUNCILMEMBERS: Fox, Shea and Wagner

NOES: 0 COUNCILMEMBERS: None

ABSENT: 1 COUNCILMEMBERS: Schott

ABSTAIN: 1 COUNCILMEMBERS: Lalloway

3.7 NEWPORT BAY WATERSHED COOPERATIVE AGREEMENT MA-080-18011416

ACTION:

- 1) Approved Agreement MA-080-18011416 to fund nutrient, fecal coliform and toxics Total Maximum Daily Load programs and activities in the Newport Bay Watershed. **(Contract No. 10259)**
- 2) Authorized the Mayor to sign the Agreement on behalf of the City.

3.8 NOTICE OF REVIEW FOR TRACT MAPS IN ORCHARD HILLS

ACTION:

Received and filed.

3.9 GRANT OF EASEMENT TO SOUTHERN CALIFORNIA EDISON COMPANY FOR ELECTRICAL FACILITIES WITHIN A CITY-OWNED LANDSCAPE LOT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who noted that this grant of easement was a result of collaborative efforts to relocate the proposed Southern California Edison Safari Substation, originally located on Wald Street.

There was no City Council discussion.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Lalloway, and unanimously carried by those members present (Councilmember Schott absent), to:

Approve the Easement Deed with Southern California Edison Company (SCE) for installation of electric facilities within a city-owned landscape lot, and authorized the Mayor to execute the Easement Deed and SCE Offer Letter. **(Deed No. 1627)**

3.10 APPROVAL OF PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS FOR IRVINE CENTER DRIVE/EDINGER AVENUE REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

ACTION:

- 1) Approved construction plans, specifications, and contract documents for Irvine Center Drive/Edinger Avenue Regional Traffic Signal Synchronization Program, Capital Improvement Project 331702.
- 2) Approved the Engineer's Estimate, Construction Contingency, and Project Funding Summary.

- 3) Authorized staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

3.11 APPROVAL OF PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS FOR VON KARMAN AVENUE/TUSTIN RANCH ROAD REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

This item was removed for separate discussion at the request of Councilmember Lalloway, who noted the significance of this and similar projects to improve traffic in and around the Irvine Business Complex; and expressed appreciation to the City of Tustin, Orange County Transportation Authority, and City staff for working collaboratively to move these projects forward.

ACTION: Moved by Councilmember Lalloway, seconded by Mayor Pro Tempore Shea, and unanimously carried by those members present (Councilmember Schott absent), to:

- 1) Approve the construction plans, specifications, and contract documents for Von Karman Avenue/Tustin Ranch Road Regional Traffic Signal Synchronization Program, Capital Improvement Project 331703.
- 2) Approve the Engineer's Estimate, Construction Contingency, and Project Funding Summary.
- 3) Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

3.12 CONSIDER MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY OF IRVINE AND THE IRVINE BARCLAY THEATRE OPERATING COMPANY

ACTION:

Authorized the Mayor to sign a Memorandum of Understanding between the City of Irvine and Irvine Barclay Theatre Operating Company memorializing and clarifying the City's obligations for annual funding for operations and maintenance. **(Contract No. 10260)**

3.13 COMMUNITY PARTNERSHIP FUND GRANT NOMINATIONS

ACTION:

- 1) Approved Councilmember Lalloway's requests for Community Partnership Fund Grant nominations to the following organizations:
 - a. Children's Hospital Orange County (CHOC) Foundation in support of CHOC Small World Guild (\$1,000) **(Contract No. 10261)**
 - b. Chabad of Irvine in support of program costs (\$1,000) **(Contract No. 10262)**
 - c. Beckman High School Athletic Booster Club in support of the Cross County program (\$2,000) **(Contract No. 10263)**
- 2) Authorized the City Manager to prepare and sign the funding agreements listed in Action 1.

4. CONSENT CALENDAR - SUCCESSOR AGENCY

4.1 MINUTES

ACTION:

Approve the minutes of the regular joint meeting of the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency with the Irvine City Council held on April 24, 2018.

4.2 WARRANT AND WIRE TRANSFER RESOLUTION – CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY

ACTION:

Adopted RESOLUTION NO. 18-04 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ALLOWING CERTAIN CLAIMS AND DEMANDS OF THE CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

PUBLIC COMMENT - SUCCESSOR AGENCY

There were no public comments.

ADJOURNMENT - REGULAR JOINT MEETING

Moved by Mayor Pro Tempore/Vice Chairwoman Shea, seconded by Councilmember/Boardmember Lalloway, and unanimously carried by those members present (Councilmember/Boardmember Schott absent), to adjourn the regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency at 6:37 p.m.

RECONVENE TO THE CITY COUNCIL MEETING

Mayor Wagner reconvened the regular City Council meeting at 6:38 p.m.

5. COUNCIL BUSINESS

5.1 CONSIDERATION OF SUBMITTAL OF NOTICE OF WITHDRAWAL FROM THE ORANGE COUNTY FIRE AUTHORITY

Mayor Wagner provided a brief summary regarding ongoing concerns by the City with respect to significant overfunding by the City to the Orange County Fire Authority (OCFA) for fire protection services, and why it was suggested that the City submit a Notice of Withdrawal by the June 30, 2018 deadline.

City Council discussion included: reiterating a desire for continued negotiations between the City, County of Orange, and OCFA; noted regional services provided by OCFA and the high level of service provided over the years; suggested overpayment be used toward additional stations, hand crews, and a training station; noted concerns about OCFA's pension liability and its potential impact on the City; noted the importance of bringing fairness to City taxpayers; and expressed appreciation to Councilmember Fox for her continued efforts in serving as the City's representative to the OCFA Board of Directors.

ACTION: Moved by Mayor Wagner, seconded by Councilmember Lalloway, to:

Authorize the Mayor to execute a Notice of Withdrawal from the Orange County Fire Authority.

The motion carried as follows:

AYES: 3 COUNCILMEMBERS: Lalloway, Shea and Wagner

NOES: 1 COUNCILMEMBERS: Fox

ABSENT: 1 COUNCILMEMBERS: Schott

5.2 ORDINANCE ESTABLISHING CHANGES AND ADDITIONS TO POSTED SPEED LIMITS

Tran Tran, Senior Transportation Engineer, presented the staff report and responded to questions. Jaime Bourgeois, City Traffic Engineer, was also available for questions.

There was no City Council discussion.

ACTION: Moved by Councilmember Fox, seconded by Mayor Pro Tempore Shea, and unanimously carried by those members present (Councilmember Schott absent), to:

Introduce for first reading, and read by title only – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DIRECTING AN AMENDMENT TO THE “CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS,” AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS

PUBLIC COMMENT-CITY COUNCIL

Scott Purley, and H.K. Rahlfs, Irvine residents, spoke in support of a veterans cemetery at the Orange County Great Park.

Susan Sayre, Irvine resident, spoke about public role in City government, and expressed concern about the validity of certain developments and traffic studies.

Don Croucher, Orange County Fire Museum (OCFM), spoke in support of a fire museum and safety learning center at the Orange County Great Park, noting recent accomplishments made by the OCFM.

Ronnie Guyer, Irvine resident, spoke in support of a veterans cemetery at the Orange County Great Park.

Amir Khoshniji and Scott Krynock, representing SmartTrac, presented a brief summary of the services provided by the company.

Gil Nelsen and Harvey Liss, Irvine residents, spoke in support of a veterans cemetery at the Amended and Restated Development Agreement (ARDA) site.

Brigitte spoke in support of the Tseglin family and related concerns with an autistic family member.

Ilya Tseglin spoke about concerns related to his autistic son.

ADJOURNMENT-CITY COUNCIL

Moved by Councilmember Lalloway, seconded by Mayor Pro Tempore Shea, and unanimously carried by those members present (Councilmember Schott absent), to adjourn the regular City Council meeting at 7:30 p.m.

MAYOR OF THE CITY OF IRVINE

CITY CLERK OF THE CITY OF IRVINE

July 10, 2018

2.2



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: WARRANT AND WIRE TRANSFER RESOLUTION

Director of Administrative Services

City Manager

RECOMMENDED ACTION

Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND DEMANDS AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

EXECUTIVE SUMMARY

A detailed register of claims, the Register of Warrants and Wire Transfers, are submitted to the City Council for review and authorization on a weekly basis. Approval of the attached resolution ratifies the disbursement of funds for the period of June 20, 2018 through July 3, 2018 in accordance with Section 2-7-211 of the Irvine Municipal Code.

ATTACHMENT Warrant and Wire Transfer Resolution

CITY COUNCIL RESOLUTION NO. 18-____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND
DEMANDS AND SPECIFYING THE FUNDS OUT OF
WHICH THE SAME ARE TO BE PAID

(SEE ATTACHED)

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular
meeting held on the 10th day of July 2018.

MAYOR OF THE CITY OF IRVINE

ATTEST:

CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, City Clerk of the City of Irvine, HEREBY DO CERTIFY
that the foregoing resolution was duly adopted at a regular meeting of the City Council
of the City of Irvine, held on the 10th day of July 2018.

AYES:	COUNCILMEMBERS:
NOES:	COUNCILMEMBERS:
ABSENT:	COUNCILMEMBERS:
ABSTAIN:	COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE

6/20/2018 through 6/26/2018

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	896,618.53
004	PAYROLL CLEARING FUND	1,314,958.71
005	DEVELOPMENT SERVICES FUND	112,630.25
009	REVENUE CLEARING FUND	731.67
024	BUILDING & SAFETY FUND	62,113.17
027	DEVELOPMENT ENGINEERING FUND	21,366.50
111	GAS TAX FUND	17,173.34
119	LIGHTING, LANDSCAPE & PARK MNT	39,519.58
126	SENIOR SERVICES FUND	604.00
128	OFFICE ON AGING PROGRAMS FUND	4,251.06
143	PUBLIC SAFETY GRANTS	5,208.00
149	SPECIAL PROGRAM GRANTS	110,575.89
151	ASSET FORFEITURE JUSTICE DEPT	37,858.67
154	RENEWED MEASURE M2 FAIR SHARE	14,100.00
155	COMMUNITY SERVICES PROGRAMS	11,305.99
180	ORANGE COUNTY GREAT PARK	86,817.07
250	CAPITAL IMPROV PROJ FUND - CIR	983,092.30
260	CAPITAL IMPROV PROJ-NON CIRC	280.00
270	NORTH IRVINE TRANSP MITIGATION	789.75
501	INVENTORY	103.76
570	INSURANCE FUND	51,073.76
574	FLEET SERVICES FUND	57,652.06
578	MAIL & PRINT INTERNAL SERVICES	39.13
579	STRATEGIC TECHNOLOGY PLAN FUND	209,067.03
580	CIVIC CTR MAINT & OPERATIONS	1,345.00
714	REASSESSMENT 12-1 FIXED RATE	131.59
716	RAD 13-1 FIXED RATE	131.59
717	RAD 04-20 PORTOLA SPR VAR RT A	75.34
718	RAD 05-21 ORCHARD HLS VAR RT	75.34
719	REASSESSMENT 85-7A VARIABLE RT	75.34
744	CFD 2013-3 GREAT PARK	13,082.82
745	CFD 2005-2R COLUMBUS GROVE SP	75.33
746	CFD 2004-1 CENTRAL PARK	53.91
772	RAD 15-1 FIXED RATE	14,410.69
773	RAD 15-2 FIXED RATE	53.91
GRAND TOTAL		4,067,441.08

6/27/2018 through 7/3/2018

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	585,707.29
004	PAYROLL CLEARING FUND	954,563.92
005	DEVELOPMENT SERVICES FUND	21,936.28
009	REVENUE CLEARING FUND	1,568.36
024	BUILDING & SAFETY FUND	48,508.29
111	GAS TAX FUND	23,117.75
114	HOME GRANT	5,000.00
119	LIGHTING, LANDSCAPE & PARK MNT	20,904.33
125	COMM DEVELOP BLOCK GRANT FUND	715.12
128	OFFICE ON AGING PROGRAMS FUND	1,670.97
136	PS SPECIAL SERVICES FUND	1,154.34
143	PUBLIC SAFETY GRANTS	6,644.82
146	I SHUTTLE	7,330.06
180	ORANGE COUNTY GREAT PARK	227,461.28
250	CAPITAL IMPROV PROJ FUND - CIR	94,109.16
260	CAPITAL IMPROV PROJ-NON CIRC	138,135.95
270	NORTH IRVINE TRANSP MITIGATION	32,639.18
286	GREAT PARK DEVELOPMENT FUND	2,980.50
501	INVENTORY	2,174.16
570	INSURANCE FUND	41,948.16
574	FLEET SERVICES FUND	8,357.69
578	MAIL & PRINT INTERNAL SERVICES	71.75
579	STRATEGIC TECHNOLOGY PLAN FUND	953,710.43
580	CIVIC CTR MAINT & OPERATIONS	34,993.51
714	REASSESSMENT 12-1 FIXED RATE	31.00
716	RAD 13-1 FIXED RATE	93.00
717	RAD 04-20 PORTOLA SPR VAR RT A	57,087.01
718	RAD 05-21 ORCHARD HLS VAR RT	73,362.84
719	REASSESSMENT 85-7A VARIABLE RT	72,894.53
721	AD00-18 SHADY CNYN&TURTL ROCK	20,091.54
723	AD03-19 WOODBURY SER B VAR RT	52,562.40
724	AD 07-22 STONEGATE VAR RT A	19,338.72
735	AD03-19 WOODBURY SER A VAR RT	45,817.40
744	CFD 2013-3 GREAT PARK	41,837.23
745	CFD 2005-2R COLUMBUS GROVE SP	958.29
746	CFD 2004-1 CENTRAL PARK	1,604.11
760	AD87-8 ICD/BAKE PKWY DEBT SVC	32,998.46
767	AD94-15 WESTPARK II SERIES A	5,379.23
771	AD97-16 NORTHWEST IRVINE VARI	58,349.01
774	AD94-13 VARIABLE RT-OAKCREEK	37,342.16
775	AD97-17 LOWER PETERS CYN EAST	80,439.41
776	AD93-14 SPECT 6N/SPECT 7	117,818.01

6/27/2018 through 7/3/2018

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
	GRAND TOTAL	3,933,407.65

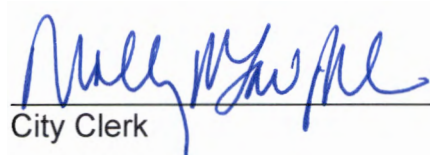
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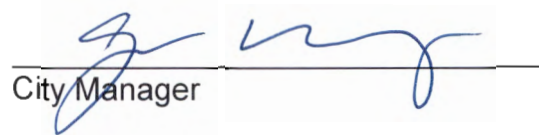


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: ADOPTION OF RESOLUTION DECLARING THE RESULTS OF THE SPECIAL MUNICIPAL ELECTION HELD ON JUNE 5, 2018 REGARDING MEASURES B, C, AND D


City Clerk


City Manager

RECOMMENDED ACTION

- 1) Receive and file the Certificate of Results of the Special Municipal Election held on June 5, 2018 for Ballot Measures B, C, and D.
- 2) Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, RECITING THE FACT OF THE SPECIAL MUNICIPAL ELECTION HELD ON JUNE 5, 2018, DECLARING THE RESULT AND SUCH OTHER MATTERS AS PROVIDED BY LAW

EXECUTIVE SUMMARY

On January 9, the City consolidated the Special Municipal Election with the Statewide Direct Primary Election and the following ballot labels were submitted to the qualified voters of the City:

- 1) Measure B – “Shall Ordinance No. 17-08, approving zone text amendments to allow for a land exchange agreement that facilitates (a) the allocation of development previously planned for the Bake Parkway Site to property near the intersection of Pusan and Irvine Blvd, and (b) the development of the State-approved site for the Southern California Veterans Cemetery on strawberry fields located near the intersection of I-5 and Bake Parkway, be adopted?”; and
- 2) Measure C – “Shall the measure amending the Irvine City Charter to require at least a two-thirds vote of the total City Council membership in order to place City Council sponsored general or special tax proposals on a ballot for voter consideration, be adopted?”; and
- 3) Measure D – “Shall Section 1099 be added to the Irvine City Charter which benefits Irvine’s general fund and local taxpayers by requiring that no City procedures or requirements delay important revenue streams from development projects which provide a fiscal benefit to Irvine citizens, be adopted?”

The Special Municipal Election was held on June 5, 2018, and the City Council is required to certify the election results following the Registrar of Voters (ROV) official canvass of returns. Measures B and D were not approved by the voters. Election results affirmed the passage of Measure C. The effective date of Measure C will be determined by the official filing date by the Secretary of State's Office.

ANALYSIS

A referendum was submitted to the City, signed by the requisite number of voters, opposing a zone change that would allow a relocation of the proposed Veterans Cemetery (Measure B - Ordinance No. 17-08). The certification of the referendum, submitted to the City Council at its January 9, 2018 meeting, resulted in the approval of Resolution Nos. 18-04 and 18-05 as required by the provisions of the Irvine City Charter and the California Elections Code. The resolutions called for a special election to be held on June 5, 2018 and requested approval by the Orange County Board of Supervisors for election services. On January 30, the City Council superseded said actions by amending a previously approved ballot label and adopting Resolution Nos. 18-12 and 18-13, again calling for the holding of a special election on June 5 and asking for County election services. On February 27, the City Council added two additional ballot measures pertaining to 1) whether to require a 2/3 vote of the City Council to propose taxes (Measure C); and 2) whether to prohibit voter approval requirements on fiscally beneficial projects (Measure D).

The City Council is required to certify the election results through the adoption of the proposed resolution (Attachment 1). The final tally for the three ballot measures, as noted in the official canvass, provides a Statement of the Votes Cast, the Canvass Certificate, and a copy of the Abstract of Votes Cast (Attachment 1, Exhibit A).

Voting Center – May 26 through June 4, 2018

The City of Irvine partnered with the ROV to provide members of the public an opportunity to vote early between May 26 and June 4, including weekends. All registered Orange County residents were able to cast their ballots at the full-service Voting Center, providing a convenient alternative to Election Day voting.

The City accommodated 892 walk-in voters during the early voting timeframe and served as a secure drive-through ballot drop-off site. The ballot drop-off site proved to be successful and well received by the public, resulting in 2,424 vote-by-mail ballots delivered to the secure location. Total number of ballots cast during early voting totaled 3,316.

Voter Outreach and Turnout

A strategic voter outreach plan was developed in collaboration with the Public Information Office to educate the public on voter registration deadlines and early voting center services (Attachment 3). Voter inclusivity is a high priority, and using a multi-media approach to enhance voter outcomes is imperative. Print media, social media, citywide banners, and existing communication tools were used to provide key election information to the community. Voter turnout for the June 5, 2018 Special Municipal Election was 41.13%, an increase from the ROV's original forecast of 24%.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ALTERNATIVES CONSIDERED

Not applicable. The City Charter requires that the election be held and the results be reported to and certified by the City Council at its next regularly scheduled meeting following the ROV's official canvass of the returns.

FINANCIAL IMPACT

The Fiscal Year 2017-18 City Clerk Budget included \$273,278 to cover election services performed by the ROV for the June 5, 2018 Special Municipal Election.

REPORT PREPARED BY Molly McLaughlin, City Clerk

ATTACHMENTS

1. Resolution Certifying Election, including Exhibit A
2. Charter Amendment – Measure C
3. Voter Outreach Task Matrix

CITY COUNCIL RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, RECITING THE FACT OF THE SPECIAL MUNICIPAL ELECTION HELD ON JUNE 5, 2018, DECLARING THE RESULT AND SUCH OTHER MATTERS AS PROVIDED BY LAW

WHEREAS, a Special Municipal Election was held and conducted in the City of Irvine, California, on Tuesday, June 5, 2018, as required by law; and

WHEREAS, notice of the election was given in time, form and manner as provided by law; that voting precincts were properly established; that election officers were appointed and that in all respects the election was held and conducted and the votes were cast, received and canvassed and the returns made and declared in time, form and manner as required by the provisions of the Elections Code of the State of California for the holding of elections in charter cities; and

WHEREAS, pursuant to City Council Resolution No. 18-13, adopted on January 30, 2018, the Orange County Registrar of Voters canvassed the returns of the election and has certified the results to this City Council, the results are received, attached and made a part hereof as "Exhibit A".

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. That the whole number of ballots cast in the precincts except vote by mail voter ballots and provisional ballots was 16,317. That the whole number of vote-by-mail voter ballots was 32,121, making a total of 48,438 ballots cast in the City and hereby attached as "Exhibit A".

SECTION 2. That the measures voted upon at the election are as follows:

Measure B: City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through Relocation of Previously-Planned Development

MEASURE <u>B</u>	
<p>"Shall Ordinance No. 17-08, approving zone text amendments to allow for a land exchange agreement that facilitates (a) the allocation of development previously planned for the Bake Parkway Site to property near the intersection of Pusan and Irvine Blvd, and (b) the development of the State-approved site for the Southern California Veterans Cemetery on strawberry fields located near the intersection of I-5 and Bake Parkway, be adopted?"</p>	Yes
	No

Measure C: City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes

MEASURE <u>C</u>	
<p>"Shall the measure amending the Irvine City Charter to require at least a two-thirds vote of the total City Council membership in order to place City Council sponsored general or special tax proposals on a ballot for voter consideration, be adopted?"</p>	Yes
	No

Measure D: City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects

MEASURE <u>D</u>	
<p>"Shall Section 1009 be added to the Irvine City Charter which benefits Irvine's general fund and local taxpayers by requiring that no City procedures or requirements delay important revenue streams from development projects which provide a fiscal benefit to Irvine citizens, be adopted?"</p>	Yes
	No

SECTION 3. That the number of votes given at each precinct and the number of votes given in the City for and against the measures were as listed in Exhibit "A".

SECTION 4. That as a result of the election, a majority of the voters voting on Measures B and D did not vote in favor of it, and that the measures were not carried, and shall not be deemed adopted and ratified; and that a majority of the voters voting on Measure C did vote in favor of it, and that the measure was carried, and shall be deemed adopted and ratified.

SECTION 5. The City Clerk shall enter on the records of the City Council of the City, a statement of the result of the election, showing: (1) the whole number of ballots cast in the City; (2) the measures voted upon; (3) the number of votes given at each precinct for and against each measures; (4) the total number of votes given for and against each measure.

SECTION 6. That the City Clerk shall certify to the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Irvine, California, at a regular meeting held on the 10th day of July, 2018.

MAYOR OF THE CITY OF IRVINE

ATTEST:

CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing resolution was adopted at a regular meeting of the City Council of the City of Irvine, California, held on the 10th day of July, 2018.

AYES: _____ COUNCILMEMBERS:

NOES: _____ COUNCILMEMBERS:

ABSENT: _____ COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE

EXHIBIT A

CERTIFIED STATEMENT OF THE VOTES CAST

at the

STATEWIDE DIRECT PRIMARY ELECTION

June 5, 2018

in the

County of Orange, State of California

FILED _____, 2018

ALEX PADILLA, SECRETARY OF STATE

BY _____ DEPUTY

State of California)

) ss


County of Orange)

I, Neal Kelley, Registrar of Voters of Orange County, do hereby certify that the within is a true and correct statement of the votes cast in this county at the Statewide Direct Primary Election, as determined by the canvass of the returns of said election.

I further certify the results of the 1 percent manual tally contained no discrepancies between the machine count and the manual tally.

WITNESS my hand and Official Seal

THIS 25th DAY OF June, 2018

, REGISTRAR OF VOTERS



Orange County Statement of Votes

Page 2259 of 2280

B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through							
Precinct	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
59001	6	1	16.67%			0	0
59002	0	0	0.00%			0	0
59003	1387	764	55.08%			262	481
59006	578	243	42.04%			69	164
59007	2035	665	32.68%			291	320
59009	1792	611	34.10%			183	382
59011	1158	652	56.30%			201	426
59014	587	293	49.91%			63	222
59015	920	485	52.72%			113	344
59016	1365	553	40.51%			182	352
59018	1388	852	61.38%			241	574
59019	1931	157	8.13%			71	54
59020	859	423	49.24%			145	260
59021	1139	520	45.65%			155	328
59022	764	459	60.08%			152	302
59026	1827	805	44.06%			285	490
59027	1609	836	51.96%			229	572
59030	770	390	50.65%			118	256
59032	884	488	55.20%			173	302
59033	1711	902	52.72%			360	502
59034	1054	571	54.17%			187	352
59036	1738	977	56.21%			308	631
59037	1192	539	45.22%			216	299
59038	643	340	52.88%			108	216
59039	908	357	39.32%			109	224
59041	829	436	52.59%			134	292
59042	748	314	41.98%			84	217
59043	1202	783	65.14%			211	544
59044	1554	848	54.57%			312	510
59045	840	473	56.31%			139	322
59047	888	492	55.41%			187	287
59048	730	284	38.90%			97	169
59054	1878	900	47.92%			312	544
59055	853	432	50.64%			157	255
59057	2094	598	28.56%			241	299
59058	2240	1494	66.70%			399	965
59061	1075	557	51.81%			172	369
59062	931	241	25.89%			100	124
59063	865	495	57.23%			134	341
59064	669	394	58.89%			142	242
59065	755	321	42.52%			104	205
59072	1700	766	45.06%			286	456
59074	757	162	21.40%			52	96
59075	1488	714	47.98%			270	391
59079	937	429	45.78%			142	260
59081	841	360	42.81%			120	227
59082	955	511	53.51%			176	305
59084	0	0	0.00%			0	0
59088	1779	760	42.72%			274	458
59089	1062	500	47.08%			180	300

Orange County Statement of Votes

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Precinct	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
59090	1832	702	38.32%			267	393
59092	1632	677	41.48%			242	401
59097	1864	688	36.91%			226	424
59098	376	139	36.97%			39	90
59099	1543	427	27.67%			198	201
59100	1559	593	38.04%			203	350
59101	886	350	39.50%			92	229
59103	1682	630	37.46%			244	349
59106	1330	739	55.56%			272	445
59108	321	71	22.12%			21	44
59111	1132	554	48.94%			139	393
59113	1748	204	11.67%			88	90
59118	2268	1043	45.99%			364	626
59124	1673	788	47.10%			252	499
59125	888	397	44.71%			133	243
59127	1144	550	48.08%			195	336
59129	1530	554	36.21%			181	326
59131	1970	546	27.72%			202	293
59132	2174	882	40.57%			313	517
59133	1733	686	39.58%			208	340
59134	0	0	0.00%			0	0
59136	1888	796	42.16%			324	382
59137	575	253	44.00%			129	105
59138	0	0	0.00%			0	0
59141	1640	648	39.51%			237	374
59143	710	231	32.54%			82	133
59144	1536	535	34.83%			210	283
59146	1889	620	32.82%			231	362
59148	614	183	29.80%			72	102
59149	2865	875	30.54%			349	467
59150	8	2	25.00%			1	0
59151	2604	983	37.75%			461	493
59152	2175	756	34.76%			291	414
59153	970	250	25.77%			108	113
59154	1286	493	38.34%			158	295
59158	956	115	12.03%			35	63
59162	0	0	0.00%			0	0
59163	406	138	33.99%			40	93
59164	1074	321	29.89%			131	174
59165	0	0	0.00%			0	0
59166	761	197	25.89%			89	97
59167	175	19	10.86%			7	5
59168	2205	817	37.05%			339	428
59169	2789	1014	36.36%			405	562
59170	91	35	38.46%			18	15
59171	11	4	36.36%			3	1
59172	1838	496	26.99%			201	257
59173	1	0	0.00%			0	0
59174	1658	643	38.78%			310	295
59175	1317	493	37.43%			241	238
59176	537	154	28.68%			81	67

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Precinct	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
Totals:	117779	48438	41.13%			17078	28638

B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through							
District	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
37th Senate District	117779	1044	0.89%			360	638
3rd Supervisorial District	109608	1011	0.92%			346	619
45th Congressional District	117779	1044	0.89%			360	638
5th Supervisorial District	8171	33	0.40%			14	19
68th Assembly District	45338	284	0.63%			92	185
74th Assembly District	72441	760	1.05%			268	453
County Board of Education Trustee Area 3	117779	1044	0.89%			360	638
Irvine	117779	1044	0.89%			360	638
Irvine Ranch Water District	117779	1044	0.89%			360	638
Irvine Unified School District	104465	976	0.93%			333	600
Irvine Unified School District Facilities Improvement	79096	820	1.04%			275	507
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	1044	0.89%			360	638
Municipal Water District of Orange County Division 5	90904	890	0.98%			304	543
Municipal Water District of Orange County Division 6	26875	154	0.57%			56	95
Orange County	117779	1044	0.89%			360	638
Orange County Water District	115924	1031	0.89%			351	634
Orange County Water District Division 5	100516	897	0.89%			299	559
Orange County Water District Division 7	20060	176	0.88%			75	89
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	22	0.73%			12	8
Rancho Santiago Community College District Trustee Area 1	3011	22	0.73%			12	8
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	22	0.73%			12	8
Santa Ana Unified School District	3011	22	0.73%			12	8
School Facilities Improv. Dist. No. 2008-1	321	1	0.31%			0	1
School Facilities Improv. Dist. No. 2012-1	9221	42	0.46%			13	28
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	1022	0.89%			348	630
South Orange County Community College District Trustee Area 1	68652	734	1.07%			257	441
South Orange County Community College District Trustee Area 2	6112	38	0.62%			11	26
South Orange County Community College District Trustee Area 3	42366	268	0.63%			84	177
State Board of Equalization (4th District)	117779	1044	0.89%			360	638
Tustin Unified School District	10295	46	0.45%			15	30
UCI Campus precincts	8608	105	1.22%			45	50
Totals:	117779	1044	0.89%			360	638

B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through							
District	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
37th Senate District	117779	31077	26.39%			11285	18108
3rd Supervisorial District	109608	28932	26.40%			10448	16992
45th Congressional District	117779	31077	26.39%			11285	18108
5th Supervisorial District	8171	2145	26.25%			837	1116
68th Assembly District	45338	11972	26.41%			4636	6827
74th Assembly District	72441	19105	26.37%			6649	11281
County Board of Education Trustee Area 3	117779	31077	26.39%			11285	18108
Irvine	117779	31077	26.39%			11285	18108
Irvine Ranch Water District	117779	31077	26.39%			11285	18108
Irvine Unified School District	104465	28133	26.93%			10124	16514
Irvine Unified School District Facilities Improvement	79096	22250	28.13%			7620	13494
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	31077	26.39%			11285	18108
Municipal Water District of Orange County Division 4	90904	24093	26.50%			8565	14143
Municipal Water District of Orange County Division 6	26875	6984	25.99%			2720	3965
Orange County	117779	31077	26.39%			11285	18108
Orange County Water District	115924	30579	26.38%			11039	17869
Orange County Water District Division 5	100516	26925	26.79%			9678	15777
Orange County Water District Division 7	20060	4589	22.88%			1780	2554
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	663	22.02%			291	322
Rancho Santiago Community College District Trustee Area 1	3011	663	22.02%			291	322
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	663	22.02%			291	322
Santa Ana Unified School District	3011	663	22.02%			291	322
School Facilities Improv. Dist. No. 2008-1	321	56	17.45%			17	34
School Facilities Improv. Dist. No. 2012-1	9221	2088	22.64%			792	1167
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	30414	26.50%			10994	17786
South Orange County Community College District Trustee Area 1	68652	18692	27.23%			6424	11176
South Orange County Community College District Trustee Area 2	6112	1352	22.12%			526	736
South Orange County Community College District Trustee Area 3	42366	10968	25.89%			4268	6219
State Board of Equalization (4th District)	117779	31077	26.39%			11285	18108
Tustin Unified School District	10295	2281	22.16%			870	1272
UCI Campus precincts	8608	1484	17.24%			421	871
Totals:	117779	31077	26.39%			11285	18108

B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through							
District	Party Member Registration	Ballots Cast	Turnout	B-City of Irvine, Ordinance No. 17-08, Facilitating Veterans Cemetery Through		Yes	No
37th Senate District	117779	48438	41.13%			17078	28638
3rd Supervisorial District	109608	45275	41.31%			15898	26921
45th Congressional District	117779	48438	41.13%			17078	28638
5th Supervisorial District	8171	3163	38.71%			1180	1717
68th Assembly District	45338	18370	40.52%			6876	10670
74th Assembly District	72441	30068	41.51%			10202	17968
County Board of Education Trustee Area 3	117779	48438	41.13%			17078	28638
Irvine	117779	48438	41.13%			17078	28638
Irvine Ranch Water District	117779	48438	41.13%			17078	28638
Irvine Unified School District	104465	43927	42.05%			15314	26200
Irvine Unified School District Facilities Improvement	79096	35048	44.31%			11659	21536
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	48438	41.13%			17078	28638
Municipal Water District of Orange County Division 5	90904	37753	41.53%			13023	22492
Municipal Water District of Orange County Division 6	26875	10685	39.76%			4055	6146
Orange County	117779	48438	41.13%			17078	28638
Orange County Water District	115924	47791	41.23%			16756	28333
Orange County Water District Division 5	100516	41935	41.72%			14616	24951
Orange County Water District Division 7	20060	7269	36.24%			2760	4077
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	916	30.42%			399	433
Rancho Santiago Community College District Trustee Area 1	3011	916	30.42%			399	433
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	2	25.00%			1	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	916	30.42%			399	433
Santa Ana Unified School District	3011	916	30.42%			399	433
School Facilities Improv. Dist. No. 2008-1	321	71	22.12%			21	44
School Facilities Improv. Dist. No. 2012-1	9221	3272	35.48%			1233	1831
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	47522	41.41%			16679	28205
South Orange County Community College District Trustee Area 1	68652	29461	42.91%			9869	17825
South Orange County Community College District Trustee Area 2	6112	2136	34.95%			827	1168
South Orange County Community College District Trustee Area 3	42366	16886	39.86%			6322	9782
State Board of Equalization (4th District)	117779	48438	41.13%			17078	28638
Tustin Unified School District	10295	3593	34.90%			1364	2005
UCI Campus precincts	8608	2656	30.86%			801	1512
Totals:	117779	48438	41.13%			17078	28638

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C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes							
Precinct	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
59001	6	1	16.67%			0	0
59002	0	0	0.00%			0	0
59003	1387	764	55.08%			573	168
59006	578	243	42.04%			175	53
59007	2035	665	32.68%			442	141
59009	1792	611	34.10%			407	145
59011	1158	652	56.30%			463	148
59014	587	293	49.91%			149	120
59015	920	485	52.72%			283	150
59016	1365	553	40.51%			397	114
59018	1388	852	61.38%			536	254
59019	1931	157	8.13%			106	24
59020	859	423	49.24%			314	83
59021	1139	520	45.65%			383	92
59022	764	459	60.08%			340	97
59026	1827	805	44.06%			620	139
59027	1609	836	51.96%			545	236
59030	770	390	50.65%			299	67
59032	884	488	55.20%			365	95
59033	1711	902	52.72%			634	189
59034	1054	571	54.17%			401	139
59036	1738	977	56.21%			682	229
59037	1192	539	45.22%			406	98
59038	643	340	52.88%			251	71
59039	908	357	39.32%			243	86
59041	829	436	52.59%			315	92
59042	748	314	41.98%			213	84
59043	1202	783	65.14%			590	143
59044	1554	848	54.57%			596	186
59045	840	473	56.31%			309	138
59047	888	492	55.41%			368	88
59048	730	284	38.90%			197	63
59054	1878	900	47.92%			630	189
59055	853	432	50.64%			315	86
59057	2094	598	28.56%			387	144
59058	2240	1494	66.70%			597	767
59061	1075	557	51.81%			419	113
59062	931	241	25.89%			172	51
59063	865	495	57.23%			340	118
59064	669	394	58.89%			269	104
59065	755	321	42.52%			255	49
59072	1700	766	45.06%			534	187
59074	757	162	21.40%			118	32
59075	1488	714	47.98%			524	123
59079	937	429	45.78%			294	100
59081	841	360	42.81%			273	71
59082	955	511	53.51%			341	127
59084	0	0	0.00%			0	0
59088	1779	760	42.72%			571	145
59089	1062	500	47.08%			369	109

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Precinct	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
59090	1832	702	38.32%			535	113
59092	1632	677	41.48%			493	137
59097	1864	688	36.91%			531	124
59098	376	139	36.97%			101	22
59099	1543	427	27.67%			292	99
59100	1559	593	38.04%			454	86
59101	886	350	39.50%			253	61
59103	1682	630	37.46%			431	134
59106	1330	739	55.56%			535	153
59108	321	71	22.12%			41	26
59111	1132	554	48.94%			378	121
59113	1748	204	11.67%			132	50
59118	2268	1043	45.99%			780	181
59124	1673	788	47.10%			571	166
59125	888	397	44.71%			282	85
59127	1144	550	48.08%			405	103
59129	1530	554	36.21%			386	109
59131	1970	546	27.72%			383	108
59132	2174	882	40.57%			626	188
59133	1733	686	39.58%			295	278
59134	0	0	0.00%			0	0
59136	1888	796	42.16%			573	124
59137	575	253	44.00%			204	28
59138	0	0	0.00%			0	0
59141	1640	648	39.51%			487	114
59143	710	231	32.54%			176	43
59144	1536	535	34.83%			381	112
59146	1889	620	32.82%			443	138
59148	614	183	29.80%			137	36
59149	2865	875	30.54%			645	155
59150	8	2	25.00%			1	0
59151	2604	983	37.75%			737	169
59152	2175	756	34.76%			551	133
59153	970	250	25.77%			188	36
59154	1286	493	38.34%			335	107
59158	956	115	12.03%			69	30
59162	0	0	0.00%			0	0
59163	406	138	33.99%			96	39
59164	1074	321	29.89%			237	59
59165	0	0	0.00%			0	0
59166	761	197	25.89%			138	43
59167	175	19	10.86%			11	4
59168	2205	817	37.05%			586	154
59169	2789	1014	36.36%			742	190
59170	91	35	38.46%			25	6
59171	11	4	36.36%			2	2
59172	1838	496	26.99%			352	97
59173	1	0	0.00%			0	0
59174	1658	643	38.78%			496	97
59175	1317	493	37.43%			374	82
59176	537	154	28.68%			110	29

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Precinct	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
Totals:	117779	48438	41.13%			34010	10618

C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes							
District	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
37th Senate District	117779	1044	0.89%			663	320
3rd Supervisorial District	109608	1011	0.92%			638	313
45th Congressional District	117779	1044	0.89%			663	320
5th Supervisorial District	8171	33	0.40%			25	7
68th Assembly District	45338	284	0.63%			180	88
74th Assembly District	72441	760	1.05%			483	232
County Board of Education Trustee Area 3	117779	1044	0.89%			663	320
Irvine	117779	1044	0.89%			663	320
Irvine Ranch Water District	117779	1044	0.89%			663	320
Irvine Unified School District	104465	976	0.93%			610	308
Irvine Unified School District Facilities Improvement	79096	820	1.04%			508	267
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	1044	0.89%			663	320
Municipal Water District of Orange County Division 5	90904	890	0.98%			561	274
Municipal Water District of Orange County Division 6	26875	154	0.57%			102	46
Orange County	117779	1044	0.89%			663	320
Orange County Water District	115924	1031	0.89%			654	316
Orange County Water District Division 5	100516	897	0.89%			559	285
Orange County Water District Division 7	20060	176	0.88%			130	36
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	22	0.73%			17	4
Rancho Santiago Community College District Trustee Area 1	3011	22	0.73%			17	4
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	22	0.73%			17	4
Santa Ana Unified School District	3011	22	0.73%			17	4
School Facilities Improv. Dist. No. 2008-1	321	1	0.31%			1	0
School Facilities Improv. Dist. No. 2012-1	9221	42	0.46%			32	8
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	1022	0.89%			646	316
South Orange County Community College District Trustee Area 1	68652	734	1.07%			465	227
South Orange County Community College District Trustee Area 2	6112	38	0.62%			28	8
South Orange County Community College District Trustee Area 3	42366	268	0.63%			168	84
State Board of Equalization (4th District)	117779	1044	0.89%			663	320
Tustin Unified School District	10295	46	0.45%			36	8
UCI Campus precincts	8608	105	1.22%			50	44
Totals:	117779	1044	0.89%			663	320

Vote-by-Mail Totals

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C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes							
District	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
37th Senate District	117779	31077	26.39%			22333	6447
3rd Supervisorial District	109608	28932	26.40%			20782	6060
45th Congressional District	117779	31077	26.39%			22333	6447
5th Supervisorial District	8171	2145	26.25%			1551	387
68th Assembly District	45338	11972	26.41%			9033	2207
74th Assembly District	72441	19105	26.37%			13300	4240
County Board of Education Trustee Area 3	117779	31077	26.39%			22333	6447
Irvine	117779	31077	26.39%			22333	6447
Irvine Ranch Water District	117779	31077	26.39%			22333	6447
Irvine Unified School District	104465	28133	26.93%			20172	5907
Irvine Unified School District Facilities Improvment	79096	22250	28.13%			15797	4892
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	31077	26.39%			22333	6447
Municipal Water District of Orange County Division 4	90904	24093	26.50%			17070	5156
Municipal Water District of Orange County Division 6	26875	6984	25.99%			5263	1291
Orange County	117779	31077	26.39%			22333	6447
Orange County Water District	115924	30579	26.38%			21952	6366
Orange County Water District Division 5	100516	26925	26.79%			19189	5720
Orange County Water District Division 7	20060	4589	22.88%			3413	840
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	663	22.02%			463	121
Rancho Santiago Community College District Trustee Area 1	3011	663	22.02%			463	121
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	663	22.02%			463	121
Santa Ana Unified School District	3011	663	22.02%			463	121
School Facilities Improv. Dist. No. 2008-1	321	56	17.45%			32	22
School Facilities Improv. Dist. No. 2012-1	9221	2088	22.64%			1556	383
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	30414	26.50%			21870	6326
South Orange County Community College District Trustee Area 1	68652	18692	27.23%			13075	4145
South Orange County Community College District Trustee Area 2	6112	1352	22.12%			1009	237
South Orange County Community College District Trustee Area 3	42366	10968	25.89%			8235	2051
State Board of Equalization (4th District)	117779	31077	26.39%			22333	6447
Tustin Unified School District	10295	2281	22.16%			1698	419
UCI Campus precincts	8608	1484	17.24%			649	668
Totals:	117779	31077	26.39%			22333	6447

C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes							
District	Party Member Registration	Ballots Cast	Turnout	C-City of Irvine, Requiring a 2/3 Vote of the City Council to Propose Taxes		Yes	No
37th Senate District	117779	48438	41.13%			34010	10618
3rd Supervisorial District	109608	45275	41.31%			31759	10014
45th Congressional District	117779	48438	41.13%			34010	10618
5th Supervisorial District	8171	3163	38.71%			2251	604
68th Assembly District	45338	18370	40.52%			13486	3643
74th Assembly District	72441	30068	41.51%			20524	6975
County Board of Education Trustee Area 3	117779	48438	41.13%			34010	10618
Irvine	117779	48438	41.13%			34010	10618
Irvine Ranch Water District	117779	48438	41.13%			34010	10618
Irvine Unified School District	104465	43927	42.05%			30781	9730
Irvine Unified School District Facilities Improvement	79096	35048	44.31%			24317	8102
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	48438	41.13%			34010	10618
Municipal Water District of Orange County Division 5	90904	37753	41.53%			26179	8503
Municipal Water District of Orange County Division 6	26875	10685	39.76%			7831	2115
Orange County	117779	48438	41.13%			34010	10618
Orange County Water District	115924	47791	41.23%			33526	10507
Orange County Water District Division 5	100516	41935	41.72%			29215	9397
Orange County Water District Division 7	20060	7269	36.24%			5282	1409
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	916	30.42%			630	177
Rancho Santiago Community College District Trustee Area 1	3011	916	30.42%			630	177
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	2	25.00%			1	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	916	30.42%			630	177
Santa Ana Unified School District	3011	916	30.42%			630	177
School Facilities Improv. Dist. No. 2008-1	321	71	22.12%			41	26
School Facilities Improv. Dist. No. 2012-1	9221	3272	35.48%			2361	652
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	47522	41.41%			33380	10441
South Orange County Community College District Trustee Area 1	68652	29461	42.91%			20167	6865
South Orange County Community College District Trustee Area 2	6112	2136	34.95%			1557	402
South Orange County Community College District Trustee Area 3	42366	16886	39.86%			12346	3374
State Board of Equalization (4th District)	117779	48438	41.13%			34010	10618
Tustin Unified School District	10295	3593	34.90%			2598	711
UCI Campus precincts	8608	2656	30.86%			1199	1149
Totals:	117779	48438	41.13%			34010	10618

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D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects							
Precinct	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
59001	6	1	16.67%			0	0
59002	0	0	0.00%			0	0
59003	1387	764	55.08%			307	411
59006	578	243	42.04%			112	112
59007	2035	665	32.68%			291	285
59009	1792	611	34.10%			207	334
59011	1158	652	56.30%			245	353
59014	587	293	49.91%			79	182
59015	920	485	52.72%			132	287
59016	1365	553	40.51%			243	257
59018	1388	852	61.38%			267	498
59019	1931	157	8.13%			76	50
59020	859	423	49.24%			148	235
59021	1139	520	45.65%			166	299
59022	764	459	60.08%			193	240
59026	1827	805	44.06%			364	374
59027	1609	836	51.96%			267	483
59030	770	390	50.65%			158	207
59032	884	488	55.20%			213	234
59033	1711	902	52.72%			405	408
59034	1054	571	54.17%			226	300
59036	1738	977	56.21%			412	464
59037	1192	539	45.22%			252	239
59038	643	340	52.88%			126	178
59039	908	357	39.32%			132	187
59041	829	436	52.59%			173	229
59042	748	314	41.98%			125	166
59043	1202	783	65.14%			359	354
59044	1554	848	54.57%			354	410
59045	840	473	56.31%			188	244
59047	888	492	55.41%			226	228
59048	730	284	38.90%			107	147
59054	1878	900	47.92%			346	445
59055	853	432	50.64%			174	201
59057	2094	598	28.56%			268	235
59058	2240	1494	66.70%			353	954
59061	1075	557	51.81%			253	275
59062	931	241	25.89%			119	98
59063	865	495	57.23%			175	275
59064	669	394	58.89%			148	224
59065	755	321	42.52%			142	147
59072	1700	766	45.06%			334	365
59074	757	162	21.40%			57	88
59075	1488	714	47.98%			269	338
59079	937	429	45.78%			156	222
59081	841	360	42.81%			153	178
59082	955	511	53.51%			188	275
59084	0	0	0.00%			0	0
59088	1779	760	42.72%			334	362
59089	1062	500	47.08%			210	257

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Precinct	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
59090	1832	702	38.32%			303	331
59092	1632	677	41.48%			250	363
59097	1864	688	36.91%			292	344
59098	376	139	36.97%			59	63
59099	1543	427	27.67%			174	204
59100	1559	593	38.04%			234	278
59101	886	350	39.50%			126	179
59103	1682	630	37.46%			279	279
59106	1330	739	55.56%			309	366
59108	321	71	22.12%			30	36
59111	1132	554	48.94%			207	285
59113	1748	204	11.67%			89	83
59118	2268	1043	45.99%			464	479
59124	1673	788	47.10%			308	412
59125	888	397	44.71%			163	197
59127	1144	550	48.08%			235	261
59129	1530	554	36.21%			203	287
59131	1970	546	27.72%			221	256
59132	2174	882	40.57%			370	415
59133	1733	686	39.58%			181	371
59134	0	0	0.00%			0	0
59136	1888	796	42.16%			356	310
59137	575	253	44.00%			135	93
59138	0	0	0.00%			0	0
59141	1640	648	39.51%			282	298
59143	710	231	32.54%			100	114
59144	1536	535	34.83%			240	236
59146	1889	620	32.82%			270	293
59148	614	183	29.80%			78	88
59149	2865	875	30.54%			377	394
59150	8	2	25.00%			1	0
59151	2604	983	37.75%			455	419
59152	2175	756	34.76%			359	318
59153	970	250	25.77%			114	105
59154	1286	493	38.34%			144	275
59158	956	115	12.03%			54	39
59162	0	0	0.00%			0	0
59163	406	138	33.99%			45	83
59164	1074	321	29.89%			134	154
59165	0	0	0.00%			0	0
59166	761	197	25.89%			95	85
59167	175	19	10.86%			8	5
59168	2205	817	37.05%			303	427
59169	2789	1014	36.36%			393	507
59170	91	35	38.46%			18	12
59171	11	4	36.36%			0	4
59172	1838	496	26.99%			204	227
59173	1	0	0.00%			0	0
59174	1658	643	38.78%			308	260
59175	1317	493	37.43%			207	235
59176	537	154	28.68%			69	62

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Precinct	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
Totals:	117779	48438	41.13%			19478	23866

D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects							
District	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
37th Senate District	117779	1044	0.89%			372	587
3rd Supervisorial District	109608	1011	0.92%			357	570
45th Congressional District	117779	1044	0.89%			372	587
5th Supervisorial District	8171	33	0.40%			15	17
68th Assembly District	45338	284	0.63%			95	171
74th Assembly District	72441	760	1.05%			277	416
County Board of Education Trustee Area 3	117779	1044	0.89%			372	587
Irvine	117779	1044	0.89%			372	587
Irvine Ranch Water District	117779	1044	0.89%			372	587
Irvine Unified School District	104465	976	0.93%			349	549
Irvine Unified School District Facilities Improvement	79096	820	1.04%			287	467
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	1044	0.89%			372	587
Municipal Water District of Orange County Division 5	90904	890	0.98%			325	490
Municipal Water District of Orange County Division 6	26875	154	0.57%			47	97
Orange County	117779	1044	0.89%			372	587
Orange County Water District	115924	1031	0.89%			368	578
Orange County Water District Division 5	100516	897	0.89%			316	507
Orange County Water District Division 7	20060	176	0.88%			71	88
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	22	0.73%			10	9
Rancho Santiago Community College District Trustee Area 1	3011	22	0.73%			10	9
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	22	0.73%			10	9
Santa Ana Unified School District	3011	22	0.73%			10	9
School Facilities Improv. Dist. No. 2008-1	321	1	0.31%			0	1
School Facilities Improv. Dist. No. 2012-1	9221	42	0.46%			13	26
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	1022	0.89%			362	578
South Orange County Community College District Trustee Area 1	68652	734	1.07%			267	404
South Orange County Community College District Trustee Area 2	6112	38	0.62%			10	25
South Orange County Community College District Trustee Area 3	42366	268	0.63%			89	163
State Board of Equalization (4th District)	117779	1044	0.89%			372	587
Tustin Unified School District	10295	46	0.45%			13	29
UCI Campus precincts	8608	105	1.22%			40	50
Totals:	117779	1044	0.89%			372	587

D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects							
District	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
37th Senate District	117779	31077	26.39%			13011	14913
3rd Supervisorial District	109608	28932	26.40%			12118	13928
45th Congressional District	117779	31077	26.39%			13011	14913
5th Supervisorial District	8171	2145	26.25%			893	985
68th Assembly District	45338	11972	26.41%			5341	5535
74th Assembly District	72441	19105	26.37%			7670	9378
County Board of Education Trustee Area 3	117779	31077	26.39%			13011	14913
Irvine	117779	31077	26.39%			13011	14913
Irvine Ranch Water District	117779	31077	26.39%			13011	14913
Irvine Unified School District	104465	28133	26.93%			11683	13600
Irvine Unified School District Facilities Improvement	79096	22250	28.13%			9135	10940
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	31077	26.39%			13011	14913
Municipal Water District of Orange County Division 5	90904	24093	26.50%			9951	11639
Municipal Water District of Orange County Division 6	26875	6984	25.99%			3060	3274
Orange County	117779	31077	26.39%			13011	14913
Orange County Water District	115924	30579	26.38%			12796	14686
Orange County Water District Division 5	100516	26925	26.79%			11144	13015
Orange County Water District Division 7	20060	4589	22.88%			2069	2091
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	663	22.02%			301	282
Rancho Santiago Community College District Trustee Area 1	3011	663	22.02%			301	282
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	0	0.00%			0	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	663	22.02%			301	282
Santa Ana Unified School District	3011	663	22.02%			301	282
School Facilities Improv. Dist. No. 2008-1	321	56	17.45%			23	30
School Facilities Improv. Dist. No. 2012-1	9221	2088	22.64%			943	940
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	30414	26.50%			12710	14631
South Orange County Community College District Trustee Area 1	68652	18692	27.23%			7514	9208
South Orange County Community College District Trustee Area 2	6112	1352	22.12%			619	592
South Orange County Community College District Trustee Area 3	42366	10968	25.89%			4814	5137
State Board of Equalization (4th District)	117779	31077	26.39%			13011	14913
Tustin Unified School District	10295	2281	22.16%			1027	1031
UCI Campus precincts	8608	1484	17.24%			387	880
Totals:	117779	31077	26.39%			13011	14913

D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects							
District	Party Member Registration	Ballots Cast	Turnout	D-City of Irvine, Prohibiting Voter Approval Requirements on Fiscally Beneficial Projects		Yes	No
37th Senate District	117779	48438	41.13%			19478	23866
3rd Supervisorial District	109608	45275	41.31%			18210	22374
45th Congressional District	117779	48438	41.13%			19478	23866
5th Supervisorial District	8171	3163	38.71%			1268	1492
68th Assembly District	45338	18370	40.52%			7886	8749
74th Assembly District	72441	30068	41.51%			11592	15117
County Board of Education Trustee Area 3	117779	48438	41.13%			19478	23866
Irvine	117779	48438	41.13%			19478	23866
Irvine Ranch Water District	117779	48438	41.13%			19478	23866
Irvine Unified School District	104465	43927	42.05%			17484	21846
Irvine Unified School District Facilities Improvement	79096	35048	44.31%			13794	17714
Laguna Beach Unified School District	0	0	0.00%			0	0
Municipal Water District Of Orange County	117779	48438	41.13%			19478	23866
Municipal Water District of Orange County Division 4	90904	37753	41.53%			14931	18768
Municipal Water District of Orange County Division 6	26875	10685	39.76%			4547	5098
Orange County	117779	48438	41.13%			19478	23866
Orange County Water District	115924	47791	41.23%			19202	23569
Orange County Water District Division 5	100516	41935	41.72%			16632	20844
Orange County Water District Division 7	20060	7269	36.24%			3169	3368
Orange Unified School District	0	0	0.00%			0	0
Orange Unified School District Trustee Area 5	0	0	0.00%			0	0
Rancho Santiago Community College District	3011	916	30.42%			405	390
Rancho Santiago Community College District Trustee Area 1	3011	916	30.42%			405	390
Rancho Santiago Community College District Trustee Area 2	0	0	0.00%			0	0
Saddleback Valley Unified School District	8	2	25.00%			1	0
Santa Ana College Imp Dist No. 1 of RSCCD	3011	916	30.42%			405	390
Santa Ana Unified School District	3011	916	30.42%			405	390
School Facilities Improv. Dist. No. 2008-1	321	71	22.12%			30	36
School Facilities Improv. Dist. No. 2012-1	9221	3272	35.48%			1454	1476
Silverado-Modjeska Recreation and Park District	0	0	0.00%			0	0
South Orange County Community College District	114768	47522	41.41%			19073	23476
South Orange County Community College District Trustee Area 1	68652	29461	42.91%			11398	14855
South Orange County Community College District Trustee Area 2	6112	2136	34.95%			976	937
South Orange County Community College District Trustee Area 3	42366	16886	39.86%			7056	8194
State Board of Equalization (4th District)	117779	48438	41.13%			19478	23866
Tustin Unified School District	10295	3593	34.90%			1588	1630
UCI Campus precincts	8608	2656	30.86%			753	1497
Totals:	117779	48438	41.13%			19478	23866

CITY COUNCIL ORDINANCE NO. 18-08
(Approved by the Voters on June 5, 2018)

AN ORDINANCE OF THE PEOPLE OF THE CITY OF
IRVINE, CALIFORNIA, AMENDING THE CITY CHARTER
OF THE CITY OF IRVINE TO REQUIRE A 2/3 VOTE OF
THE CITY COUNCIL TO PROPOSE TAXES

NOW, THEREFORE, the City Council of the City of Irvine, California DOES
HEREBY ORDAIN as follows:

SECTION 1: Text of Charter Amendment. The City Charter of the City of Irvine is hereby amended as follows (underlining showing additions and ~~strike-through~~ showing deletions):

Section 904. City Council Sponsored Tax Proposals – 2/3 Vote Requirement.

Notwithstanding any conflicting provision of this Charter, no City Council sponsored proposal to impose, extend or increase a tax shall be presented at an election unless the ordinance or resolution proposing to impose, extend or increase such tax is approved by at least a two-thirds vote of the total members of the City Council. As used in this section, the term "tax" shall mean both a "general tax" and a "special tax" as defined in Article XIIC, Section 1, subdivisions (a) and (d), respectively, of the California Constitution.

SECTION 2: Ballot Description. As provided in Government Code section 34458.5, the following ballot description is included in this proposed Charter Amendment measure:

CHARTER AMENDMENT (Section 904): This Charter Amendment measure would amend the City Charter to add Section 904. Proposed Section 904 would require any tax proposal sponsored by the City Council that imposes, extends or increases a tax to be approved by at least a two-thirds vote of the total membership of the City Council in order to be presented to the voters at an election, whereas presently only a majority vote of the City Council is required to place most tax measures on the ballot for voter consideration. The term "tax" in proposed Section 904 means both "general" and "special" taxes as defined in Article XIIC of the California Constitution. A "general tax" is defined in the California Constitution as a tax imposed for general governmental purposes. A "special tax" is defined in the California Constitution as a tax imposed for specific purposes, including a tax imposed for a specific purpose which is placed into a general fund. This amendment does not give the City Council power to raise its compensation or that of other City officials without voter approval.

SECTION 3: Severability. It is the intent of the people that the provisions of this Charter Amendment measure are severable and that if any provision of this Charter Amendment measure, or the application thereof to any person or circumstance, is held invalid such invalidity shall not affect any other provision or application of this Charter Amendment measure which can be given effect without the invalid provision or application.

SECTION 4: Effective Date. This Charter Amendment measure shall become effective in the manner allowed by law.

ADOPTED by the vote of the people of the City of Irvine on June 5, 2018 at a Special Municipal Election as certified by the City Council of the City of Irvine on the 10th day of July, 2018, and the effective date of the ordinance will be determined by the official filing date by the Secretary of State.

MAYOR OF THE CITY OF IRVINE

ATTEST:

CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing Charter Amendment was adopted by the voters of the City of Irvine as an initiative measure at an election held on June 5, 2018, as certified by the City Council of the City of Irvine on the 10th day of July, 2018, and that the effective date of the ordinance will be determined by the official filing date by the Secretary of State's Office.

CITY CLERK OF THE CITY OF IRVINE

2018 June Election Voter Outreach Action Plan

Action Item	Deliverables	Due Date	Status	Notes
External Marketing				
Banners - Street Corner	Design and install street corner banners	05/11/18	Completed	Installed by CS - 4-5
Banners - Breezeway	Design and install breezeway banners near City Hall entrance	05/04/18	Completed	
City Calendar	Post listing to the City's Master Calendar	05/04/18	Completed	Posted Election and Early Voter Center Dates
City Homepage - Carousel	Post graphic and voter registration, election info to carousel	05/04/18	Completed	
Council Annoucements	Create Graphic and text for Mayor's accounnements during April/May Council Meetings	05/08/18	Completed	Announcements given by Mayor on 5/8 and 5/22
Collateral Material Design	Design of fliers, rack cards, website graphics, breezeway banners, etc.	05/04/18	Completed	
Election Hotline	Establishment of Election Hotline	Ongoing	Completed	Reference Election Hotline in materials
GovDelivery eBlast	E-Blast to email subscribers	05/04/18	Completed	sent on 5/4 to 10,090 subscribers; opened by 2,490. Again on 5/14 to 8,496 subscribers; opened by 983. Again on 5/21 to unopened 7,809 users; opened by 393.
ICTV Bulletin Board	ICTV Bulletin Board	05/04/18	Completed	
ICTV News Crawl	ICTV News Crawl	05/04/18	Completed	Shawnn to enter

2018 June Election Voter Outreach Action Plan

Action Item	Deliverables	Due Date	Status	Notes
Inside Irvine	Full page ad and brief	04/20/18	Completed	2018 Summer edition
Irvine Today News Show	Run segments on weekly news show	05/14/18	Completed	Ran weekly segments
Kiosk - Irvine Spectrum Center	Build and place kiosk ad	04/20/18	Completed	Running May 4-June 5
Lobby Board	Post information for visitors re: voter registration and election day	TBA	Completed	Will begin running Oct. 24 and Oct. 30-Nov. 7, Nov. 8
Nextdoor	Send information to all Nextdoor Users	Ongoing	Ongoing	Posted Election and Early Voter Center dates to calendar and news posts
OC Register/Irvine World News Ad	Run print ads in OCR	05/04/18	Completed	Front page note ran on Sunday, May 20
On-Hold Message	Prepare and record language for the City's On-Hold recording	05/04/18	Completed	Heather recorded; sent to IT to load.
Press Release	Send News Release to local media	05/04/18	Completed	Sent to all media contact lists
Senior Services Posters	Provide 20x30 posters in senior centers	05/04/18	Completed	Carl took to Centers on XXX
Social Media	Send reminders for voter registration, early vote center and election day reminders	Ongoing	Completed	Ran daily campaign from


2.4



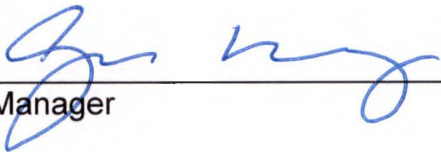
REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: APPROVAL OF SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR THE ANNUAL STREET REHABILITATION AND SLURRY SEAL
PROJECT



Director of Public Works



City Manager

RECOMMENDED ACTION

1. Approve the specifications and contract documents for the Annual Street Rehabilitation and Slurry Seal Capital Improvement Project 311901.
2. Approve the Engineer's Estimate, Construction Contingency and Funding Summary.
3. Authorize the City Manager to execute the Reimbursement Agreement with Irvine Ranch Water District for installation and adjustment of water facilities within the project area.
4. Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder in accordance with the City's purchasing policies and procedures, within the approved project budget.

EXECUTIVE SUMMARY

Specifications and contract documents for the Annual Street Rehabilitation and Slurry Seal Project are complete and ready for City Council approval. These documents are available for public review in the Public Works department. The proposed work will rehabilitate pavement on public arterial and residential streets in the Northwood community (Attachment 1). The project includes a bid alternate for work on behalf of Irvine Ranch Water District (IRWD) to reset manhole and water valve covers to grade level of the repaved streets. IRWD will reimburse the City for the cost of the alternate bid items (Attachment 2). Approval of the recommended actions will allow staff to proceed with solicitation of competitive bids for construction and to award a contract to the lowest responsive and responsible bidder in accordance with the City's purchasing policies and procedures within the approved project budget.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

The City's annual CIP budget allocates funds for preventive maintenance and repair of City streets and concrete infrastructure such as curbs, gutters, sidewalks and access ramps. Maintenance cycles for the City's pavement infrastructure are determined using a Pavement Management Program that takes into account the age of the pavement structural section, along with factors such as surface conditions, subgrade stability and past maintenance applications. Typically, most streets will receive a slurry seal treatment with older streets requiring rehabilitation in the form of asphalt overlays. This ongoing preventive maintenance allows the City to defer costly major street reconstruction by extending the pavement design life for the City's residential and arterial streets as long as possible.

This year's Street Rehabilitation and Slurry Seal Project consists of asphalt pavement rehabilitation, slurry seal and concrete infrastructure repairs for various streets within the community of Northwood. A copy of the Notice Inviting Bids, Construction Contract, Specifications and the proposed Schedule of Work listing the individual bid items for this project is included as Attachment 3.

The contract documents also include work on IRWD facilities located within the project limits. The IRWD work will reset manhole and water valve covers to the grade of the newly paved roadway. This work is included as an Alternate Bid Item and may be awarded with the construction contract upon approval of the bid prices by IRWD. The proposed Reimbursement Agreement (Attachment 2) provides for reimbursement to the City for all project costs related to IRWD facilities.

The construction contract cost estimate prepared by the project engineer is \$6,173,440 for the Base Bid and \$962,200 for IRWD related costs for a total construction contract amount of \$7,135,640. A budget allowance of \$378,488 for construction engineering and \$450,000 for construction contingency is recommended as shown in the Funding Summary (Attachment 4). The City's construction contracting policies and procedures limit the award of the construction contract by staff to a maximum of 10 percent over the engineer's estimate. These policies also restrict the use of the construction contingency only for unforeseen circumstances that may arise and are necessary to complete the work within the approved project scope and budget.

Construction is anticipated to start in October 2018 and be completed by the end of June 2019. Work will take place primarily on residential streets Monday through Friday between the hours of 8 a.m. and 4 p.m. Appropriate advance notices will be provided to residents and businesses to facilitate the work.

ENVIRONMENTAL REVIEW

Pursuant to Section 4 of the City of Irvine California Environmental Quality Act (CEQA) Manual and Article 19 of the State of California CEQA Guidelines, the proposed project has been found to be categorically exempt from the requirements of CEQA, under State Guideline Section 15301, Class 1(c), Existing Facilities.

ALTERNATIVES CONSIDERED

The City Council may elect to reduce the scope of work for this project or may direct staff to defer maintenance of the pavement infrastructure to a future time. These alternatives are not recommended because reducing the scope or deferring the work will result in further deterioration of the public infrastructure and increased costs for future rehabilitation. The City Council may also approve the construction plans and related documents, authorize staff to solicit competitive bids and direct staff to bring back the results of the competitive bid process to the City Council for its review and consideration prior to award of the contract.

FINANCIAL IMPACT

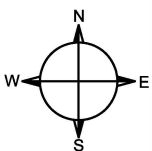
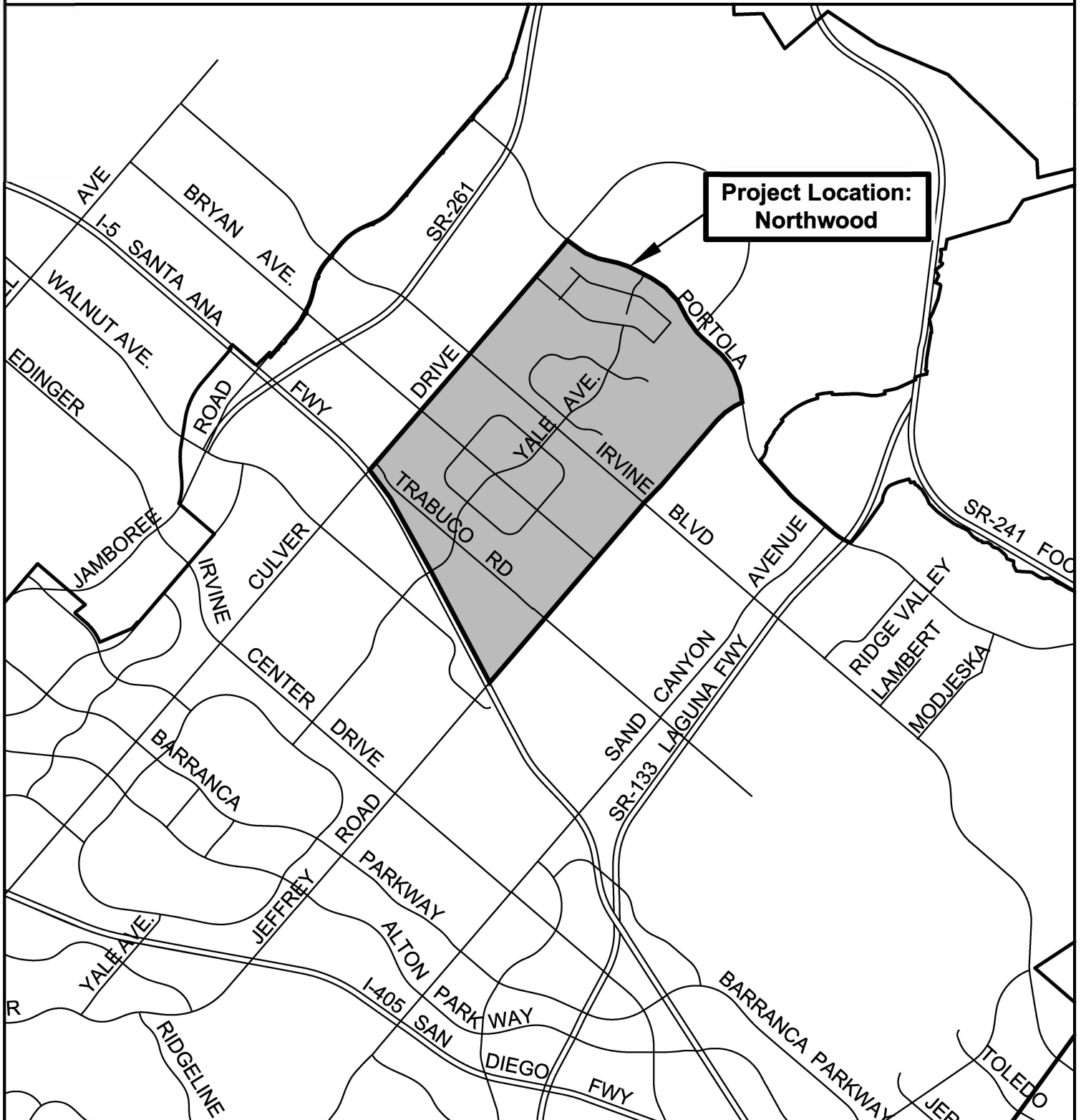
The City Council approved funding for this project with the Fiscal Year 2018-19 Capital Improvement Program Budget. The construction contract cost estimate prepared by the project design engineer is \$6,173,440 for the Base Bid and \$962,200 for IRWD related costs for a total construction contract amount of \$7,135,640. The recommended budget allowance of \$378,488 for construction engineering and \$450,000 for construction contingency brings the total estimated project cost for the construction phase to \$7,964,128. Funding is available in the City Council approved CIP 311901 from a combination of funding sources, including Gas Tax, Measure M2, Slurry Seal Fund and IRWD reimbursement funds. A complete funding summary for this project is provided in Attachment 4.

REPORT PREPARED BY Allison Tran, Associate Engineer

ATTACHMENTS

1. Vicinity Map
2. Irvine Ranch Water District Agreement and Exhibit A
3. Schedule of Work, Specifications, and Contract Documents
4. Funding Summary

ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT FY 2018-19



VICINITY MAP



File No.

REIMBURSEMENT AGREEMENT BETWEEN
IRVINE RANCH WATER DISTRICT
AND THE CITY OF IRVINE
FOR
INSTALLATION AND ADJUSTMENT OF STREET UTILITIES TO GRADE FOR
ANNUAL STREET REHABILITATION AND SLURRY SEAL
BID NO. 19-1436

This Agreement is made and entered into as of this ____ day of _____, 2018, by and between IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law, hereinafter referred to as "DISTRICT," and the CITY OF IRVINE, a municipal corporation, hereinafter referred to as "CITY."

W I T N E S S E T H:

WHEREAS, CITY proposes to construct street and utility improvements within the Northwood communities for the ANNUAL STREET REHABILITATION AND SLURRY SEAL, Bid No. 19-1436 (the "Project"), within the jurisdictional boundaries of DISTRICT and the City of Irvine; and

WHEREAS, such construction will necessitate the installation or adjustment to grade of approximately 673 Water Valves, approximately 43 Recycled Water Valves, approximately 121 Sewer Cleanouts and approximately 295 Sewer Manholes, as depicted on Exhibit "A" attached hereto incorporated by reference herein (hereinafter referred to as the "IRWD FACILITIES"); and

WHEREAS, the parties have determined that it would be more expedient for CITY to construct the IRWD FACILITIES rather than for DISTRICT to do so; and

WHEREAS, DISTRICT is amenable to the CITY constructing the IRWD FACILITIES with the CITY agreeing to advance the costs; and

WHEREAS, DISTRICT agrees to fully reimburse the CITY through payments billed by the CITY and approved by DISTRICT for the entire cost of the IRWD FACILITIES; and

WHEREAS, except as otherwise provided herein, upon the completion of the IRWD FACILITIES, the IRWD FACILITIES shall become the property of DISTRICT in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties hereto agree as follows:

SECTION 1. IRWD FACILITIES. In conjunction with the Project, CITY agrees to initiate and pursue to completion the design and construction of the IRWD FACILITIES.

SECTION 2. PLANS. CITY agrees that the IRWD FACILITIES shall be completed pursuant to approved project plans and specifications (the "Plans and Specifications") which shall be approved by DISTRICT and used in awarding the construction contract. Prior to commencement of preparation of the Plans and Specifications, CITY shall submit its design engineer's proposal for the design of the IRWD FACILITIES to DISTRICT. DISTRICT will have a period of five (5) calendar days from its receipt of such design proposal to review and either indicate its approval or request changes. CITY shall cause its design engineer to review and respond to any requested changes. The Plans and Specifications shall be deemed to incorporate the applicable portions of DISTRICT's latest edition of "Construction Manual for the Construction of Water, Sewer, and Reclaimed Water Facilities" (the "Construction Manual"). The IRWD FACILITIES shall be contracted by CITY together with non-reimbursable work to be completed by CITY within the Project pursuant to plans prepared by CITY's design engineer.

SECTION 3. BIDDING AND AWARD. The parties agree that the construction of the IRWD FACILITIES shall be included in CITY's contract(s) awarded for the Project and that the IRWD FACILITIES shall be bid as a separate item or items that can be deleted. During the bidding process, CITY shall deliver to IRWD one (1) complete set of the bid documents that include the IRWD FACILITIES, including all related addenda concurrently with the distribution thereof to prospective bidders. Upon opening of bids by CITY, CITY will submit the bids or a spread sheet summary of the bids to DISTRICT. DISTRICT will have a period of ten (10) calendar days from its receipt of the bid results for review and approval of the IRWD FACILITIES bid item(s) submitted by the bidder identified to DISTRICT by CITY as CITY's proposed successful bidder. CITY agrees that bids received for the construction of the IRWD

FACILITIES bid item(s) shall be subject to the approval of DISTRICT prior to award of the Project construction contract(s) that include the IRWD FACILITIES; and further agrees that in the event DISTRICT does not approve such bids, either party may terminate this Agreement upon twenty-four (24) hours' prior written notice, in which event CITY shall have no further obligation to construct the IRWD FACILITIES, and DISTRICT may elect to install the IRWD FACILITIES with its own contractor. If DISTRICT approves of the IRWD FACILITIES bid item(s) of CITY's successful bidder, CITY agrees to cause the IRWD FACILITIES to be constructed as part of the contract awarded to such bidder. The total estimated construction cost for the IRWD FACILITIES is \$962,200 provided, however, the amount to be reimbursed by DISTRICT shall be based on the actual costs of construction. Upon award of the construction contract, CITY shall provide DISTRICT with one (1) original copy of the fully executed contract documents and one (1) copy of the bid package relating to the IRWD FACILITIES received from the successful bidder.

SECTION 4. DESIGN REVISIONS AND CHANGE ORDERS. DISTRICT agrees to reimburse CITY for any change order(s) for revision(s) requested by DISTRICT or otherwise required to construct the IRWD FACILITIES. CITY shall promptly furnish DISTRICT with copies of any proposed change order(s) to such contract within five (5) working days of the initiation of the changed conditions to such contract, which shall be subject to DISTRICT approval if and to the extent the IRWD FACILITIES are affected therefrom.

DISTRICT shall promptly review proposed change order(s) and provide CITY with a response within five (5) working days or sooner of receiving proposed change order(s) information from CITY. DISTRICT agrees not to unreasonably cause delay(s) to the construction schedule of the Project in reviewing proposed change order(s) for the IRWD FACILITIES. Notwithstanding any other provision herein, any approval required to be given by the DISTRICT under this Section shall be deemed given if no response to the CITY's request for such approval is received by the CITY within eight (8) working days following the written request for such approval unless the parties agree otherwise in a writing executed by both parties.

SECTION 5. REIMBURSEMENT. DISTRICT agrees to reimburse CITY for the following costs (collectively, the "Costs"): (1) the actual costs of design, construction, permits, bonds, and legal fees (excluding the costs of preparation of this Agreement) incurred by CITY in connection with the design and construction of the IRWD FACILITIES, plus (2) an administration fee which shall be equal to four percent (4%) of the actual cost of construction (costs paid directly to CITY's contractor for construction, only, excluding any cost for design,

surveying, geotechnical or other work) of the IRWD FACILITIES and which shall be deemed to cover all costs of project administration, including, but not limited to, accounting, inspection, surveying, compaction testing, geotechnical services and engineering. CITY shall keep a separate accounting of all Costs incurred by CITY in relation to the IRWD FACILITIES.

Within sixty (60) days of DISTRICT's acceptance of the IRWD FACILITIES as provided in Section 8, a final accounting of the Costs shall be made by CITY and submitted to DISTRICT along with an invoice for the Costs and any supporting documentation necessary to show the amounts which represent Costs of IRWD FACILITIES. Amounts paid pursuant to progress payment invoices shall be subject to adjustment in the final accounting. Within thirty (30) days of said final accounting, DISTRICT agrees to pay to CITY the total amount of the Costs.

SECTION 6. LAWS, ORDINANCES, RULES AND REGULATIONS. CITY shall require in its contract for the construction of the IRWD FACILITIES that its contractor be fully informed of and comply with all laws, ordinances, rules and regulations, including, but not limited to, all applicable requirements of the California Labor Code, prevailing wage laws, the Construction Manual, and the Rules and Regulations of DISTRICT, in connection with the construction of the IRWD FACILITIES.

SECTION 7. INSPECTION. DISTRICT shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and DISTRICT shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and material inspection thereof. DISTRICT shall have access to all phases of the Project work to be performed by CITY for the purpose of such inspection; provided, however, all questions regarding the work being performed will be directed to CITY's resident engineer. DISTRICT will promptly notify CITY of any portion of the work on the IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of DISTRICT as to conformity of the IRWD FACILITIES with the Plans and Specifications shall be made in DISTRICT's sole and absolute discretion. DISTRICT agrees not to unreasonably withhold its approval as to such conformity of the IRWD FACILITIES with the Plans and Specifications. CITY shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. CITY agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 8. ACCEPTANCE. DISTRICT agrees to accept the IRWD FACILITIES when the IRWD FACILITIES have been completed by CITY in accordance with all requirements of the Plans and Specifications, including any change orders approved by DISTRICT as provided in Section 3 hereof. At the time of completion and acceptance of the IRWD FACILITIES, CITY agrees to furnish DISTRICT with one (1) copy of the contractor's redlined set of blue-line "record" drawings (showing all revisions, manufacturer and type of valves, pipe and fittings as required by DISTRICT) and one (1) copy of the compaction reports and certificate, survey notes and cut sheets.

SECTION 9. OWNERSHIP. It is mutually agreed between the parties hereto that notwithstanding the fact that CITY shall accomplish the construction of the IRWD FACILITIES subject to reimbursement, the IRWD FACILITIES to be completed hereunder, together with the necessary franchises, licenses, easements, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of DISTRICT, as modified or amended from time to time. CITY hereby disclaims any interest in the IRWD FACILITIES and does hereby transfer and assign to DISTRICT any and all right, title, and interest it may have in the IRWD FACILITIES. DISTRICT shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 10. GUARANTEES. CITY will, pursuant to the requirement(s) of the Plans and Specifications, cause its contractor(s) for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by CITY, which acceptance shall be given only after acceptance by DISTRICT as provided in Section 8. It is further agreed that CITY shall cause the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portions of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, express or implied, from CITY's contractors or material manufacturers, with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by DISTRICT's inspection and/or acceptance of the IRWD FACILITIES. This section sets forth the entire guarantee and warranty of CITY with respect to the IRWD FACILITIES. The express or implied warranties of other persons with respect to IRWD FACILITIES shall in no way be limited by the guarantee and warranty of CITY contained in this section. If requested by DISTRICT, CITY agrees to assign to DISTRICT the contractor's guarantee and/or any other guarantees or warranties relating to the IRWD FACILITIES.

SECTION 11. INDEMNIFICATION. CITY shall indemnify, defend and hold DISTRICT, its officers, agents, employees, and engineers harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES as a result of any work or action performed by CITY or on behalf of CITY, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any act, omission, or negligence of DISTRICT, its officers, agents, employees or engineers or by any act or omission for which DISTRICT, its officers, agents, employees or engineers are liable without fault.

DISTRICT shall indemnify, defend and hold CITY, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any acts performed by DISTRICT, its officers, agents, or employees, with respect to the IRWD FACILITIES construction; or (ii) following DISTRICT acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any negligence of CITY, its officers, agents, employees or engineers, or by any act or omission for which CITY, its officers, agents, employees or engineers are liable without fault.

SECTION 12. INSURANCE AND BONDING. CITY shall cause its contractor(s) to provide performance and payment bonds for the construction of the Project including the IRWD FACILITIES and to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include DISTRICT, its officers, agents, employees and engineers, as additional insureds on all insurance policies that CITY requires its contractor(s) to provide. As evidence of such insurance coverage, CITY shall, prior to commencement of construction of the IRWD FACILITIES, provide DISTRICT with certificates of insurance and insurance endorsements from CITY's contractor(s) in a form acceptable to DISTRICT.

SECTION 13. TERMINATION. DISTRICT shall have the right to terminate this Agreement at any time, subject to the provisions of this section, by providing five (5) business days' prior written notice to CITY, except as noted in Section 3. If at the request or direction of a party other than CITY, the construction of the IRWD FACILITIES is not accomplished or completed, DISTRICT shall remain obligated for the actual amount of the Costs incurred by CITY to the date of termination.

If CITY's Project is canceled or modified so as to eliminate the necessity of the construction of the IRWD FACILITIES, CITY shall have the right to terminate this Agreement and thereby terminate its obligation to construct the IRWD FACILITIES, by providing five (5) business days' prior written notice to DISTRICT. In such case, DISTRICT will not be obligated for any design or any other Costs incurred by CITY. If IRWD elects to construct the IRWD FACILITIES, DISTRICT may, but shall not be obligated to, acquire the design or other work from CITY by separate agreement.

SECTION 14. NOTICE. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

DISTRICT:	Irvine Ranch Water District 15600 Sand Canyon Avenue P.O. Box 57000 Irvine, CA 92619-7000 Attn: General Manager
CITY:	City of Irvine 6427 Oak Canyon, Bldg. 1 Irvine, CA 92618 Attn: Allison Tran, Associate Engineer

SECTION 15. SUCCESSORS AND ASSIGNS; INTEGRATION; AMENDMENT. This Agreement shall be binding upon and inure to the benefit of the successor and assigns of CITY and DISTRICT. This Agreement constitutes the entire Agreement between CITY and DISTRICT and supersedes all prior understandings and agreements between the parties with respect to the subjects hereof. This Agreement may be modified only in writing signed by both parties hereto.

SECTION 16. LEGAL FEES. In the event of any declaratory or other legal or equitable action instituted between CITY and DISTRICT in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 17. DEEMED APPROVAL. Any approval required to be given by either party pursuant to this Agreement shall be deemed given if no response to the party's request for

such approval is received by the requesting party within fifteen (15) days following the written request for such approval.

SECTION 18. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or other unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 19. APPLICABLE LAW. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

SECTION 20. WAIVER. The waiver of any provision of this Agreement by either party shall not be deemed to be a waiver of any other provision or of any preceding or subsequent breach hereunder.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date herein above written.

IRVINE RANCH WATER DISTRICT

By _____
Paul Cook, General Manager

Dated _____

ATTEST:

By _____
Secretary/Assistant Secretary

Dated _____

APPROVED AS TO FORM:

By _____
Legal Counsel, IRWD

Dated _____

CITY OF IRVINE
A Municipal Corporation

By _____
Grace Leung
Acting City Manager of the City of Irvine

Dated _____

By _____
Manuel Gomez
Director of Public Works


Dated _____

ATTEST:

By _____
Molly McLaughlin
City Clerk of the City of Irvine

Dated _____

APPROVED AS TO FORM:

By  _____
Jeffrey Melching, RUTAN & TUCKER, LLP
City Attorney of the City of Irvine

Dated _____

EXHIBIT "A"

REIMBURSEMENT AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT (IRWD)
AND THE CITY OF IRVINE
FOR
ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT, BID NO. 19-XXXX

ENGINEER'S ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNITS	UNIT COST	EXTENDED AMOUNT
A-1	INSTALL NEW IRWD WATER VALVE FRAME AND COVER TO GRADE	673	EA	\$ 850.00	\$ 572,050.00
A-2	INSTALL NEW IRWD RECLAIM WATER VALVE FRAME AND COVER TO GRADE	43	EA	\$ 850.00	\$ 36,550.00
A-3	INSTALL NEW IRWD SEWER CLEANOUT FRAME AND COVER TO GRADE	121	EA	\$ 850.00	\$ 102,850.00
A-4	ADJUST EXISTING IRWD SEWER MANHOLE FRAME AND COVER TO GRADE	295	EA	\$ 850.00	\$ 250,750.00
TOTAL CONSTRUCTION ESTIMATE					\$ 962,200.00
4% ADMINISTRATION FEE PER SECTION 5 OF AGREEMENT					\$ 38,488.00
TOTAL COSTS					\$ 1,000,688.00



CITY OF IRVINE

ORANGE COUNTY, CALIFORNIA

**NOTICE INVITING BIDS, PROPOSAL,
CONTRACT AND SPECIAL PROVISIONS
FOR**

**ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901,
BID NO. 19-1436**

CITY OF IRVINE
1 CIVIC CENTER PLAZA
P.O. BOX 19575
IRVINE, CALIFORNIA 92623-9575

AUGUST 2018

ATTACHMENT 3

**ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT
CIP 311901**

THE SPECIAL PROVISIONS CONTAINED HEREIN HAVE BEEN PREPARED BY OR
UNDER THE DIRECTION OF:



James M. Houlihan, P. E.
City Engineer

C 51568
R.C.E. No.

THE NORTHWOOD, WESTWOOD, SOUTHWOOD, AND EASTWOOD STRIPING
PLANS AND DETAILS CONTAINED HEREIN IN APPENDIX C HAVE BEEN PREPARED
BY OR UNDER THE DIRECTION OF:



Jaimee Bourgeois, P.E.
City Traffic Engineer

C 66261
R.C.E. No.

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APPENDIX

APPENDIX A – GUARANTEE FORM

APPENDIX B – VICINITY MAP, LIST OF ASPHALT REHABILITATION AND SLURRY SEAL WORK LOCATIONS AND MAPS, AND RAMP LOCATION MAP.

APPENDIX C – NORTHWOOD, SOUTHWOOD, WESTWOOD, EASTWOOD STRIPING PLANS AND DETAILS.

APPENDIX D – STANDARD PLANS

APPENDIX E – FORTA-FI PRODUCT INFORMATION AND MANUFACTURER SPECIFICATION

CITY OF IRVINE, CALIFORNIA
NOTICE INVITING BIDS
Bid No. 19-1436

NOTICE IS HEREBY GIVEN that sealed bids with online bid price submittal will be received by the Purchasing Agent of the City of Irvine, California, for furnishing all labor services, materials, tools, equipment, supplies, transportation, utilities and all other items and facilities necessary therefore, as provided in the contract documents for **Annual Street Rehabilitation and Slurry Seal Project, CIP 311901** together with appurtenances thereto, in strict accordance with the specifications on file at the **Department of Public Works**, 6427 Oak Canyon, Bldg. 1, Irvine, California 92618-5202.

DATE OF OPENING BIDS: Bid prices for each line item of the Schedule of Work must be entered and all other required documents for the bid proposal packet (pages 13, 18-31) must be uploaded to the BidsOnline system in accordance with the instructions beginning on page 16 no later than 10:00 a.m. on August 16, 2018 at which time bids will be publicly read aloud at 1 Civic Center Plaza, Irvine, California 92606-5207. No late bids will be accepted. No other method of bid submittal will be accepted.

LOCATION OF THE WORK: The work to be performed hereunder is located in the City of Irvine, County of Orange, at various locations as specified in the contract documents.

DESCRIPTION OF WORK: The work to be performed shall include, but not be limited to:

Removal and AC cold milling; fiber reinforced asphalt concrete pavement overlay; slurry seal application; removal and replacement of various concrete improvements such as sidewalk, ramps, and curb and gutters; adjustment of survey monuments, water valves, sewer cleanouts and manhole frames and covers to grade; installation of traffic signal detection loops; installation of striping and pavement markings; providing public notifications, traffic control, and all appurtenant items thereto; and other items not mentioned here, but are required by the plans and the Special Provisions. The Engineer's construction cost estimate for the Base Bid is \$6,173,000 and the cost estimate for the Alternate Bid is \$ 960,000.

LICENSE REQUIREMENT: **Prime Contractor must possess a valid Class A or C-12 license.** . At the time of submitting the bid, the Bidder shall be licensed as a contractor in accordance with the provisions of California Business and Professions Code Chapter 9, Division 3.

DEBARRED CONTRACTORS: The City of Irvine Municipal Code Section 2-12-101 *et seq.* sets forth procedures to debar Contractors from bidding or performing work on City of Irvine contracts at any tier, whether prime, subcontractor, etc. Accordingly, certain Contractors have been debarred and are listed on the City's website at www.cityofirvine.org/purchasing. Click on the link which states: "For a list of Debarred Contractors, please [click here](#)."

COMPLETION OF WORK AND LIQUIDATED DAMAGES: All work shall be completed in a total of **One Hundred Twenty (120) Working Days** from the date specified in the Notice to Proceed. Liquidated damages shall be **Five Thousand Dollars (\$5,000)** per Calendar

Day, for each and every Calendar Days delay in finishing the work in excess of the number of Working Days prescribed above.

AWARD OF CONTRACT: The award of the Contract, if it is awarded, will be to the lowest responsive and responsible Bidder whose bid complies with all the requirements prescribed. The City reserves the right, after opening bids, to reject any or all bids, to waive any informality in a bid, to make awards in the interest of the City, and to reject all other bids.

PROPOSAL GUARANTEE AND BONDS: Each bid shall be accompanied by a scanned copy of a certified or cashier's check or corporate surety bond issued by a surety company, admitted to do business in the State of California, on the form furnished by the City as guarantee that bidder will, if an award is made to him in accordance with the terms of his bid, promptly secure Workers' Compensation insurance, and liability insurance, execute a contract in the required form, and furnish satisfactory bonds for the faithful performance of the contract ("Performance Bond") and for the payment of claims of materialmen and laborers thereunder ("Payment Bond"). Said check or bidder's bond shall be in an amount of not less than ten percent (10%) of the amount of the bid. **Bidders with the apparent three lowest responsive bids shall deliver an original hard copy of the certified check, cashier's check or surety bond to the Receptionist for the Purchasing Agent at 1 Civic Center Plaza, Irvine, CA, 92606 within two business days of the bid opening date.** The Performance and Payment Bonds shall be not less than one hundred percent (100%) of the total amount of the bid price named in the contract. Only bonds issued by companies admitted to do business in the State of California will be accepted in accordance with the Code of Civil Procedure Section 995.311. Failure to submit acceptable Payment and Performance Bonds as required shall result in a rejection of the bid and a forfeiture of the proposal guarantee.

PREVAILING RATES OF WAGES: Prevailing wage requirements apply to public works projects with a value exceeding \$1,000.00. The definition of "public works" is found at Labor Code Section 1720, *et seq.*

The CITY is subject to the provisions of law relating to public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by CONTRACTOR. CONTRACTOR shall abide by all applicable Sections of the California Labor Codes including Sections 1770 -1781, *et seq.* In accordance with the provisions of Section 1773 of the California Labor Code, the general prevailing rates of per diem wages and holiday and overtime work in the locality in which the Work is to be performed shall be in accordance with the rates posted on the Department of Industrial Relations website, found at <http://www.dir.ca.gov/dirdatabases.html>. The CONTRACTOR, and any subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of this Agreement.

The CITY reminds all contractors and subcontractors of the adoption of **SB 96**, and encourages them to understand and comply with the requirements as set forth on the Department of Industrial Relations (DIR) website at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>. All contractors and subcontractors who plan to bid on a public works project when the project is for construction, alteration, demolition, installation, or repair work with a value exceeding \$25,000.00 must first be registered and pay an

annual fee with the DIR. Additionally, all contractors and subcontractors who plan to bid on public works projects involving maintenance work with a value exceeding \$15,000.00 must first be registered and pay an annual fee with the DIR. The CITY requires all contractors and subcontractors to be registered with the DIR prior to submitting a bid meeting these parameters. Subject to the exceptions set forth in Labor Code Section 1725.5, bids from contractors that are not currently registered will be deemed nonresponsive. Further, the CITY will not award a contract to and no contractor or subcontractor will be allowed to work on a CITY public works project meeting these parameters unless they are registered with the DIR pursuant to Labor Code Section 1725.5. Please visit the DIR website for further information.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

LABOR REGULATIONS: The Contractor shall comply with all applicable requirements of the California Labor Code and the City of Irvine Municipal Code.

PLANS AND SPECIFICATIONS: A full set of bid documents consisting of Notice Inviting Bids, Proposal, Contract, Special Provisions and Contract Plans are available for inspection without charge at the Department of Public Works, Project Management Division, City of Irvine Operations Support Facility, 6427 Oak Canyon, Building 1, Irvine, California 92618-5202.

To obtain a copy of the bid documents, please visit the City of Irvine's website at www.cityofirvine.org/purchasing. Click on the "Supplier Registration and Bid Opportunities" link, and review the information about our online system. Next, click on the "BidsOnline" link. If you are not currently registered with the City of Irvine, please click on the "New Vendor Registration" button and then complete the electronic supplier registration process, including selecting Category Code(s) describing the goods and/or services you provide, as well as entering your Contractors State License information. After registering your firm, click on the "Bid Opportunities" button to view and download the Bid Documents. Interested firms must be registered on the City's website and download the Bid Documents in order to submit a bid. Firms must also check the website periodically for addenda information as failure to download any and all addenda will result in bid disqualification.

SECURITY FOR COMPLETION OF WORK: The Contract Documents establish a provision for monthly progress payments based upon the percentage of work completed as determined by the Engineer. The City will retain a portion of each progress payment as security for completion of the balance of the work. At the request and expense of the successful bidder, the City will pay the amount so retained upon compliance with the requirements of California Public Contract Code § 22300 and the provisions of the Contract Documents, Special Provisions Subsection 9-3.2.2 pertaining to "Substitution of Securities."

PROJECT ADMINISTRATION: All questions relative to this project prior to opening bids shall be prepared in writing and transmitted to the attention of Anthony Caraveo, Senior Project Manager, by email to acaraveo@cityofirvine.org, with a copy to Brian Brown, Senior Buyer, bbrown@cityofirvine.org. No inquiries will be accepted later than five (5) business days prior to the bid opening date as this would not allow time to respond to all plan holders. No phone inquiries will be accepted.

CITY OF IRVINE

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INSTRUCTIONS TO BIDDERS, PROPOSAL REQUIREMENTS AND CONDITIONS

1. CONTRACT DOCUMENTS: The Contract Documents shall consist of:

- a) Permits and Agreements
- b) Contract
- c) Addenda
- d) Instructions to Bidders, Proposal Requirements and Conditions
- e) Special Provisions
- f) Contract Plans
- g) Standard Plans
- h) Standard Specifications
- i) Reference Specifications,

all of which are on file at the City of Irvine in the Public Works Department, Project Management Division, Operations Support Facility, 6427 Oak Canyon, Bldg. 1, Irvine, California, and are hereby referred to and made a part hereof.

2. BID PROPOSALS: To be considered, bids shall be made in accordance with the following instructions:

- a) For the convenience of bidders, the "SCHEDULE OF WORK" has been posted on the City's BidsOnline system. Bidders must enter their unit price information online in accordance with the INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS included herein. Unit prices must be entered online and then the extended prices and total bid price will be automatically calculated.
- b) Bids shall be submitted only on bid items stated in the Bid Documents; bids on other bases will not be considered. Bids that are not submitted on the prescribed forms, and in accordance with the INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS may be rejected.
- c) Unless called for, additive bids will not be considered.
- d) Pursuant to the provisions of Public Contract Code § 4101 to 4108, inclusive, every Bidder shall set forth in its bid:
 - 1) The Bidder shall list the name, license number and location of the place of business of each subcontractor performing work in an amount in excess of one-half of one percent (1/2%) of the prime contractor's total bid, or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent (1/2%) of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.
 - 2) The bid item numbers and the percentage of the bid item subcontracted.
- e) In the event additive bids are called for and the Bidder intends to use different or additional subcontractors on the additive(s), the Bidder shall fill

out additional forms of the list of subcontractors and shall identify such forms with relation to whether they apply to the base or additive bids.

- f) If the Bidder fails to specify a subcontractor for any portion of the work to be performed under the contract in excess of one-half of one percent (1/2%) of the Bidder's total bid, or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent (1/2%) of the Bidder's total bid or ten thousand dollars (\$10,000), whichever is greater, the Bidder agrees to perform that portion of work himself. The successful Bidder shall not, without the consent of the City, either:
 - 1) Substitute any person, firm or corporation as subcontractor in place of the subcontractor designated in the original bid, or
 - 2) Permit any subcontract to be assigned or transferred or allow the work to be performed by anyone other than the original subcontractor listed in the bid.
 - g) If required in the Notice Inviting Bids, bids shall be accompanied by a certified or cashier's check or an acceptable corporate bid bond on the form furnished by the City for an amount not less than ten percent (10%) of the bid, made payable to the order of the City of Irvine. The check or bid bond shall be a guarantee that the Bidder will enter into a contract and provide all required insurance and bonds if awarded the work; and in case of refusal or failure to enter into the contract, the check or bid bond shall be forfeited. The City will return Bidder's check if the project is not awarded to Bidder.

Only bonds issued by companies admitted to do business in the State of California will be accepted, in accordance with Code of Civil Procedure § 995.311 and Insurance Code § 12090.
 - h) Before submitting a bid, bidders shall carefully examine the work site, the Contract Documents and the form of Contract and shall fully inform themselves about all existing conditions and limitations. Bidders shall include in their bids a sum to cover the cost of all work included in the Contract.
 - i) Bid prices must be entered and the bid proposal packet must be uploaded to the BidsOnline System on or before the day and hour set for the bid opening in the Notice Inviting Bids. No other method of bid submittal will be accepted. Bidders with the three apparent lowest responsive bids shall deliver an original hard copy of the certified check, cashier's check or surety bond to the Receptionist for the Purchasing Agent at 1 Civic Center Plaza, Irvine, CA, 92606 within two business days of the bid opening date.
 - j) A bid may be considered non-responsive if it does not comply with the requirements set forth in these bid documents. A responsive bid is one that complies with the solicitation in all acceptability and material respects and contains no material defects.
3. WITHDRAWAL OF BIDS: Bids may be withdrawn at any time before the bid deadline, by going back into the BidsOnline system and selecting "Withdraw."
4. INTERPRETATION OF DRAWINGS AND DOCUMENTS; REQUESTS FOR CLARIFICATION: If any person contemplating submitting a bid for the proposed

Contract is in doubt as to the true meaning of any part of the plans and specifications, or other proposed Contract Documents, or finds discrepancies in, or omissions from, the drawings or specifications, he shall submit to the Purchasing Agent a written request for all interpretations or corrections thereof via email to the project manager and purchasing staff prior to the deadline for submitting questions, as set forth in the Notice Inviting Bids section herein. Any clarification or correction of the proposed documents will be made only by Addendum duly issued, with notice provided to all firms who downloaded the bid documents from the City's website. The City is not responsible for any other explanations or interpretations of the proposed documents.

5. **ADDENDA TO THE CONTRACT DOCUMENTS:** Any addenda issued during the time of bidding, or forming a part of the Contract Documents after the Bidder has downloaded the bid documents from the City's website, shall be taken into account in the bid and shall be made a part of the Contract.

Addenda may be issued by the City of Irvine for any reason, including but not limited to, clarifying or correcting the Notice Inviting Bids, Special Provisions, Plans, or Bid.

Bidders will be notified of such Addenda during the period of advertising either by email or posting on the City's website, provided however, each Bidder shall be solely responsible for obtaining any such Addenda.

The Bidder shall acknowledge the receipt of Addenda on the City's BidsOnline system.

6. **BIDDER RESPONSIVENESS:** Failure of the Bidder to provide requested information in a complete and accurate manner may be considered non-responsive resulting in rejection of the bid. The use of "N/A" or "n/a" in response to any request for information without an explanation as to why that abbreviation is being used may render the bid non-responsive.
7. **BIDDER RESPONSIBILITY:** Bidders are hereby notified that, in accordance with the City of Irvine Municipal Code § 2-12, the City may make a determination that the Contractor is non-responsible if the hearing officer finds evidentiary support that the Bidder has committed any of the following: (1) violated a term of a contract, present or past, with the City or other entity; (2) committed an act or omission which negatively reflects on the Contractor's quality, fitness, or capacity to perform a contract with the City or any other entity or engaged in a pattern or practice which negatively reflects on the same; (3) committed an act or omission which evidences a lack of business integrity or business honesty; (4) made or submitted a false claim against the City or any other entity; or (5) received a fine or citation for performing work in an unsafe manner; or (6) violated a condition, rule, regulation, permit, or standard applicable to a contract with the City or any other entity. In arriving at his or her determination, the hearing officer may consider Bidder's past conduct on City projects or on any other public or private projects upon which Bidder performed work.

8. **BIDDER DEBARMENT:** Bidders are hereby notified that, in accordance with the City of Irvine Municipal Code § 2-12, the City may make a determination that the Bidder shall be debarred if the hearing officer finds evidentiary support that the Bidder has committed any of the following: (1) violated a term of a contract, present or past, with the City or other entity; (2) committed an act or omission which negatively reflects on the Contractor's quality, fitness, or capacity to perform a contract with the City or any entity or engaged in a pattern or practice which negatively reflects on the same; (3) committed an act or omission which evidences a lack of business integrity or business honesty; (4) made or submitted a false claim against the City or any other entity; (5) received a fine or citation for performing work in an unsafe manner; or (6) violated a condition, rule, regulation, permit, or standard applicable to a contract with the City or any other entity. In arriving at his or her determination, the hearing officer may consider past conduct of the Contractor on City projects or on any other public or private projects which Contractor performed work.
9. **OPENING BIDS:** Bids will be publicly opened and read at the time and place set in the Notice Inviting Bids.
10. **BID PROTEST PROCEDURES:**
 - a) **BASIS FOR PROTEST:** It is the policy of the City to ensure that free and open competition takes place in all procurement activities. If, in the course of a procurement action, an interested party has reason to believe that these conditions do not exist, the interested party may file a protest in accordance with the provisions of these procedures with the City of Irvine Purchasing Agent requesting a review of the claim and a timely resolution of the issue. Any bidder on a project for which it submitted a timely bid may protest the contract award for that project; however, subcontractors, suppliers or other third parties may not protest contract awards. Moreover, complaints about alleged ambiguity of the bid documents and/or estimates are not appropriate subject matters for bid protests.
 - b) **BID PROTEST CONTENTS:** The bid protest shall be submitted in writing via email to the attention of the Purchasing Agent. The written protest shall include:
 - 1) The solicitation number and project description.
 - 2) The name, address, phone number, and email address of the protesting party.
 - 3) A detailed statement of all the legal and factual grounds for the protest and all relevant, supporting documentation (including all written documentation). The grounds for protest must be fully supported.
 - 4) Statement of the form of relief requested from the City.
 - 5) Signature of an authorized representative of the protesting party.
 - c) **DEADLINE TO SUBMIT BID PROTESTS:** Bid protests must be filed within five (5) business days after the deadline for receiving bids.

- d) **WHERE TO FILE:** All protests are to be directed to the City of Irvine Purchasing Agent. Protests must be submitted in writing via email to: purchasing@cityofirvine.org. A copy of the email must also be sent to the project manager whose email address is set forth in the bid documents. (A document is considered filed on a particular calendar day when it is received via email by the City of Irvine Purchasing Agent by 5:00 p.m., Pacific Standard Time, on that calendar day.) Although not required, in addition to submitting a protest via email, an original protest letter may be sent via United States Postal Service to: Attn: Purchasing Agent, City of Irvine, P.O. Box 19575, Irvine, CA 92623-9575.
- e) **BID PROTEST REVIEW:** Upon receipt, the Purchasing Agent shall consider the protest and may give notice of the protest and its basis to other persons including bidders involved in or affected by the protest. A protest shall be dismissed for failure to comply with any of the requirements set forth in the "Bid Protest Contents" section above. The Purchasing Agent shall review all material submitted with the protest. No additional material will be accepted for consideration from the protesting party unless specifically requested by the Purchasing Agent. If additional material is requested, it must be submitted by the requested date. The Purchasing Agent shall respond to the protesting party via email within ten (10) business days after receipt of the protest. Final determinations shall be binding, except as otherwise provided below.
- f) **RECONSIDERATION OF PROTEST DECISION:** A protesting party may request the Purchasing Agent's reconsideration of a decision prior to contract award only if one or both of the following conditions are met:
- 1) New information becomes available that was not previously known, or could not have been reasonably known, at the time of the original protest; and/or
 - 2) The Purchasing Agent's decision contains an error of law.
- Any request for reconsideration of a protest decision must be submitted in writing via email to the Purchasing Agent within three (3) business days from the date of issuance of the initial decision. The request must include a detailed explanation of the basis for reconsideration as set forth above. The Purchasing Agent shall respond to the request for reconsideration within seven (7) business days from receipt of the request.
- g) **CONTRACT AWARD:** At its discretion, the City may delay the execution of any proposed agreement pending the resolution of a protest unless one or both of the following conditions are present:
- 1) The project or service being procured is urgently required; and/or
 - 2) Failure to make prompt award will otherwise cause undue harm to the City.
- h) **REMEDIES:** There shall be no limitation on remedies selected by the City. Nothing contained herein shall be considered to either act as a limitation on the City's choice of remedies or confer any right upon any interested party to a remedy. In determining the appropriate remedy, the City shall consider all the circumstances surrounding the solicitation, the contract

selection, and/or the contract award, including, but not limited to: the seriousness of any deficiency found to exist in the contracting process; the effect of the action of the competitive process; any urgency surrounding the contract requirement; and the effect that implementing the remedy will have on the City's overall ability to accomplish its mission. If the City determines that the award or proposed award was not made in accordance with the applicable City statutes, regulations, policies, and procedures, the City may, in its sole discretion, grant any of the following or any other remedy it deems appropriate: If pre-award, reject all bids and issue a new solicitation, make a new contractor selection or award a contract consistent with applicable statutes, regulations, policies, and procedures; or if post-award, refrain from extending the term of the contract or awarding task orders under an existing task order agreement; or at its sole discretion, take no further action.

11. **AWARD OR REJECTION OF BIDS AND EXECUTION OF CONTRACT:** The award of the Contract will be as of the date specified in the Notice of Award issued by the City. The award of the Contract shall not constitute a binding obligation on City until the Contract has been lawfully executed by all parties and the Contractor has submitted all required insurance certificates and bonds to the City.

The Contractor shall not commence work in advance of the execution of the Contract, the delivery of the bonds and insurance certificates, as specified above and purchase order issuance.

The award of the Contract, if it is awarded, will be to the responsive and responsible Bidder who submitted the lowest Bid complying with these Proposal Requirements and Conditions and with the Notice Inviting Bids. The lowest bid shall be the lowest bid price on the base contract without consideration of the Additive Bid Items. Such award, if made, will be made within ninety (90) Calendar Days after the opening of the proposals. The ninety (90) Calendar Days period shall be subject to extension for such further period as may be agreed upon in writing between the City and the Bidder(s) concerned. All bids will be compiled on the basis of the estimated quantities of work to be done as shown in the Proposal. However until an award is made, the City of Irvine reserves the right to reject any and all bids or to waive any informality in bids received, if doing so is deemed to best serve the interest of the City.

12. **CONTRACT AND BONDS:** The Contract, which the successful Bidder, as Contractor, will be required to execute, is included in the Contract Documents and should be carefully examined by the Bidder.

The successful Bidder, simultaneously with his execution of the Contract, will be required to furnish a Payment Bond and a Performance Bond. Said bonds shall be in the form of the two (2) sample bonds included in these Contract Documents and based upon conditions specified in the Standard Specifications Section 2-4, "Contract Bonds," and as specified in the Special Provisions and shall be secured from a surety company satisfactory to the City.

Only bonds issued by companies admitted to do business in the State of California will be accepted, in accordance with Code of Civil Procedure § 995.311 and Insurance Code § 12090. Failure to submit acceptable Payment and Performance Bonds as required shall result in rejection of bid and forfeiture of the proposal guarantee.

All alterations, extensions of time, extra and additional work, and other changes authorized by the Contract Documents will be made without securing the consent of the surety or sureties on the Contract bonds.

The Contract shall be signed by the successful Bidder, and delivered to the City together with the Contract bonds within ten (10) days of the date specified in the Notice of Award issued by the City, not including Saturdays, Sundays and legal holidays. The Contractor shall submit insurance certificates electronically in accordance with 7-3 of the Standard Specifications and as set forth in the Contract Documents. The executed Contract, together with the required bonds, will be filed with the Clerk of the City of Irvine.

Failure of the lowest responsive and responsible Bidder to execute the Contract and file acceptable insurance certificates and bonds as provided herein within ten (10) days of award of the Contract, not including Saturdays, Sundays and legal holidays, shall be just cause for the forfeiture of the bid bond. The successful Bidder may file with the City a written notice, signed by the Bidder or his authorized representative, specifying that the Bidder will refuse to execute the Contract if presented to him. The filing of such notice shall have the same force and effect as the failure of the Bidder to execute the Contract and furnish acceptable certificates of insurance and bonds within the time herein before prescribed.

13. SPECIAL NOTICE: Bidders are required to inform themselves fully of the conditions relating to construction and labor under which the Work will be performed, and the Contractor must employ, so far as possible, such methods and means in the carrying out of this work as will not cause any interruption or interference with any other contractor.
14. BIDDERS INTERESTED IN MORE THAN ONE BID: No person, firm or corporation shall be allowed to make or file or be interested in more than one bid as prime contractor for the same work.
15. BIDS TO BE LEFT ON DEPOSIT: No Bidder may withdraw its bid for a period of ninety (90) Calendar Days after the time set for opening thereof. However, the City will return all certified checks within fifteen (15) days, not including Saturdays, Sundays and legal holidays, after the award of the Contract or rejection of the bids, as the case may be, to respective Bidders whose bids are not accepted.
16. NON-COLLUSION DECLARATION: All Bidders shall submit with their bids an executed non-collusion declaration on the form provided in the bidding documents. Failure to provide completed form shall result in the bid being deemed non-responsive.

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report

bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is 800-424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

17. SUBSTITUTIONS: Where the Specifications or drawings specify any material, product, thing, or service by one or more brand names, whether or not "or equal" is added, and a Bidder wishes to propose the use of another item as being equal, he shall request approval therefor as set forth in 4-1.6 of the Standard Specifications and Special Provisions.
18. REPORTING SUSPECTED IMPROPRIETY, GROSS WASTE, FRAUD AND OTHER ACTS: Any City and/or Great Park official, employee, and/or contractor who suspects any type of impropriety relating to purchasing or contracting activities, or gross waste, fraud, or abuse of City and/or Great Park funds or resources, a gross abuse of authority, a specified and substantial danger to public health or safety due to any act or omission of any City and/or Great Park official, employee, or contractor, or the use of a City and/or Great Park office or position or of City and/or Great Park resources for personal gain, should report the act by calling the City's Integrity Line at 866-428-1509. All such reports shall remain anonymous if desired by the reporting party. Suspected fraudulent activities include bid rigging, product substitution, theft, overcharging, false certifications and representations, and the like. Any allegations of bribery, kickbacks, gratuities, and conflicts of interest involving City employees should also be reported.
19. ASSIGNMENT OF CONTRACT: No assignment by the Contractor of any Contract to be entered into hereunder or of any part thereof, or of funds to be received thereunder by the Contractor, will be recognized by the City unless such assignment has had the prior written approval of the City and the surety has been given due notice of such assignment in writing.
20. OTHER REQUIREMENTS: Before entering into a Contract, the Bidder to whom the Contract has been awarded shall satisfy all insurance requirements per Section 7-3 of the Standard Specifications and Special Provisions and such insurance shall be maintained in full force and effect at its own expense during the life of this Contract.

Upon request, the successful Bidder shall furnish to the City a statement of its financial condition and previous construction experience or such other evidence of his qualifications.

21. LABOR CODE:

PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM

All contractors and subcontractors who plan to bid on a public works project (the definition of "public works" is found at Labor Code Section 1720, *et seq.*) when the project is for construction, alteration, demolition, installation, or repair work with a value exceeding \$25,000.00 must first be registered and pay an annual

fee with the DIR. Additionally, all contractors and subcontractors who plan to bid on public works projects involving maintenance work with a value exceeding \$15,000.00 must first be registered and pay an annual fee with the DIR. The CITY requires all contractors and subcontractors to be registered with the DIR prior to submitting a bid meeting these parameters. By submitting a bid for City of Irvine Public Works project, the contractor acknowledges the above requirements and agrees to maintain a valid Department of Industrial Relations (DIR) Public Works Contractor registration during the term of this project.

- a) A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.
- b) Pursuant to Labor Code Section 1771.4, all bidders are hereby notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

In addition to the requirement for submittal of certified payroll records **to the City**, contractors and subcontractors shall furnish electronic certified payroll records to the Labor Commissioner **(State of California, Division of Labor Standards Enforcement)**.

Contractors and subcontractors shall be responsible for complying and staying current with all DIR requirements and regulations. More information can be found at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>.

Attention is directed to Labor Code § 1735 of which reads as follows:

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in the Government Code §12940, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter.

The Contractor shall abide by the provisions of the California Labor Code § 1770-1781, *et seq.* In accordance with the provisions of the California Labor Code § 1773, the general prevailing rates of per diem wages and holiday and overtime work in the locality in which the work is to be performed has been obtained from the Director of the Department of Industrial Relations, a copy of which is on file in the office of the City Clerk of the City of Irvine and will be made available to any interested party upon request. The Contractor shall post a copy of the prevailing rate of per diem wages at the job site. The Contractor, and any subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of the contract.

Failure to comply with the subject sections will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1775.

In accordance with of the Labor Code § 1773.1, the Contractor must make travel and subsistence payments to each worker employed in the execution of the Contract.

The City will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the City on the Contract.

The Contractor shall familiarize itself with the provisions of the Labor Code § 1777.5 regarding employment of apprentices, and shall be responsible for compliance therewith, including compliance by his subcontractors.

The Contractor and subcontractors shall comply with Labor Code § 1777.6 which stipulates that it shall be unlawful to refuse to accept otherwise qualified employees as registered apprentices solely on the grounds of race, religious creed, color, national origin, ancestry, sex, or age except as provided in Labor Code § 3077, of such employee.

The Contractor and subcontractors shall comply with Labor Code § 1810 and § 1811 which stipulates that eight hours labor constitutes a legal day's work, and § 1812 which stipulates that the Contractor and subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work performed under the terms of the Contract. Failure to comply with these sections of the Labor Code will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1813.

Failure to comply with the subject sections will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1775.

In accordance with of the Labor Code § 1773.1, the Contractor must make travel and subsistence payments to each worker employed in the execution of the Contract.

The City will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the City on the Contract.

The Contractor shall familiarize itself with the provisions of the Labor Code § 1777.5 regarding employment of apprentices, and shall be responsible for compliance therewith, including compliance by his subcontractors.

The Contractor and subcontractors shall comply with Labor Code § 1777.6 which stipulates that it shall be unlawful to refuse to accept otherwise qualified employees as registered apprentices solely on the grounds of race, religious creed, color, national origin, ancestry, sex, or age except as provided in Labor Code § 3077, of such employee.

The Contractor and subcontractors shall comply with Labor Code § 1810 and § 1811 which stipulates that eight hours labor constitutes a legal day's work, and § 1812 which stipulates that the Contractor and subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work performed under the terms of the Contract. Failure to comply with these sections of the Labor Code will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1813.

22. RESERVATION OF RIGHTS:

The City reserves the right to:

- a) Disqualify any Bidder in accordance with the instructions herein.
- b) Reject any bids, at its discretion, including bids found to be conditional or incomplete, contain irregularities, contain any interlineations or alterations, or found to be not responsive to this Invitation for Bids (IFB).
- c) Investigate the qualifications of any Bidder under consideration.
- d) Require confirmation or clarification of information furnished by the Bidder.
- e) Require additional evidence of Bidder's ability to perform the Work described in these bid documents.
- f) Contact the submitted references to confirm information provided in the bid.
- g) Postpone or cancel the entire IFB or a portion thereof.
- h) Postpone the bid opening or award for its own convenience.
- i) Award a Contract in part or in combination of items.
- j) Issue subsequent IFB.
- k) Seek the assistance of outside technical experts to review the bids.
- l) Disqualify a bid upon evidence of collusion, with intent to defraud, or other illegal practices on the part of the Bidder.
- m) Waive any errors or informalities in any bid to the extent permitted by law.
- n) Require bidder to provide proof as to the equality, substitutability, and compatibility of any items proposed as alternates or equals.
- o) Determine, at the City's sole discretion, the equality, substitutability, and compatibility of any items proposed as alternates or equals.

p) Exercise any other rights under the City's charter or municipal code.

The City has no obligation to consider any bid unless it is responsive to this IFB and conforming in all respects to the Form of Contract. This IFB does not commit the City to enter into a Contract.

BIDDER'S PROPOSAL
CONSTRUCTION
OF

ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID NO. 19-1436

HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL
CITY HALL
IRVINE, CALIFORNIA

THE UNDERSIGNED, HAVING CAREFULLY EXAMINED ALL OF THE CONTRACT DOCUMENTS; PERMITS ISSUED BY JURISDICTIONAL REGULATORY AGENCIES; CONTRACT; CONTRACT ADDENDA; INSTRUCTIONS TO BIDDERS; PROPOSAL REQUIREMENTS AND CONDITIONS; SPECIAL PROVISIONS; THE PLANS: STANDARD PLANS; STANDARD SPECIFICATIONS; REFERENCE SPECIFICATIONS; AND ALL OTHER INFORMATION PROVIDED BY THE AGENCY FOR THE CONSTRUCTION LISTED ABOVE IN AND FOR THE CITY OF IRVINE, IS FAMILIAR WITH THE CONDITIONS, HAVING PERSONALLY VISITED THE SITE OF THE WORK, AND HEREBY PROPOSES TO FURNISH ALL LABOR, MATERIALS AND EQUIPMENT, AND ALL INCIDENTAL WORK NECESSARY TO DELIVER ALL THE IMPROVEMENTS COMPLETE, IN PLACE AND IN STRICT CONFORMITY WITH THE CONTRACT DOCUMENTS, FOR THE UNIT PRICES NAMED IN THE FOLLOWING SCHEDULE OF WORK AND BID PRICES.

Bidder's Company Name (please print or type)

Signature of Bidder

Print Name

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

SCHEDULE OF WORK

All applicable sales taxes, State and/or Federal taxes, and any other special taxes, patent rights or royalties are included in the prices quoted in this Proposal.

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	EST. QTY.
1	Mobilization	LS	1
2	Construction Surveying	LS	1
3	Traffic Control and Public Convenience	LS	1
4	Traffic Control Plans	LS	1
5	Water Pollution Control Plan (WPCP)	LS	1
6	Traffic Striping, Markers and Markings	LS	1
7	Variable Depth Cold Milling (0-2")	SF	1,465,200
8	2" Cold Milling	SF	110,500
9	2" Fiber Reinforced Asphalt Concrete Overlay	TON	33,100
10	Adjust Survey Monument Frame and Cover to Grade	EA	45
11	Adjust Storm Drain Manhole Frame and Cover to Grade	EA	115
12	Install 3' Diameter Modified Type E Traffic Signal Detector Loop and Connect to DLC	EA	4
13	Install 6' Diameter Type E Traffic Signal Detector Loop and Connect to DLC	EA	50
14	Install 6' Diameter Modified Type E Traffic Signal Detector Loop and Connect to DLC	EA	46
15	2" Cold Milling for Road Repairs Prior to Slurry Seal	SF	147,500
16	Fiber Reinforced AC Paving for Road Repairs Prior to Slurry Seal	TON	1,800
17	Micro-Mill AC Pavement Prior to Slurry	SF	698,100
18	Type I Slurry Seal	SY	423,000
19	Type II RAP Slurry Seal	SY	221,000
20	PCC Curb and Gutter	LF	1,800
21	PCC Access Ramp	EA	52
22	8" Misc PCC Improvements	SF	700
23	4" Misc PCC Improvements	SF	3,400

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

SCHEDULE OF WORK – ALTERNATE BID “A”

All applicable sales taxes, State and/or Federal taxes, and any other special taxes, patent rights or royalties are included in the prices quoted in this Proposal.

The Contract will be awarded on the basis of the lowest total Base Bid Price without consideration of any Alternate Bids.

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	EST. QTY
A-1	Install New IRWD Water Valve Frame and Cover to Grade	EA	673
A-2	Install New IRWD Recycled Water Valve Frame and Cover to Grade	EA	43
A-3	Install New IRWD Sewer Cleanout Frame and Cover to Grade	EA	121
A-4	Adjust Existing IRWD Sewer Manhole Frame and Cover to Grade	EA	295

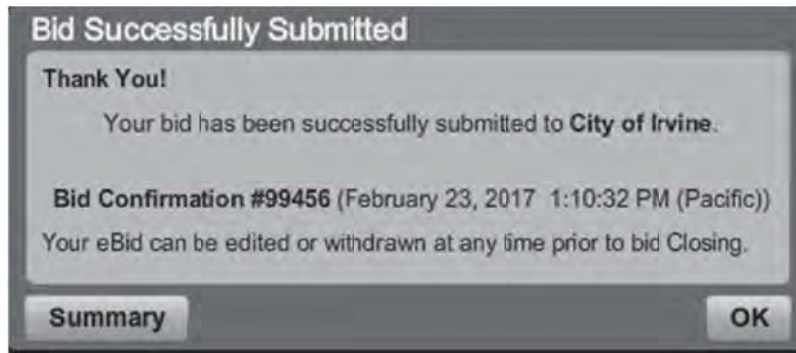
CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS

In order to access the BidsOnline system and ensure successful online submission of your bid prices, follow these steps:

1. Go to <https://www.planetbids.com/portal/portal.cfm?CompanyID=15927#>
2. On the Vendor Portal page, log into the system (lower right hand corner of screen) with your assigned user name and password. (You must be registered in order to download documents and submit a bid.)
3. Click on "Bid Opportunities" and then on the Bid # and Description that you wish to bid on. The selected bid will open to allow you to access all tabs, documents and the pricing sheet.
4. Click on the "Documents & Attachment" tab to be sure you have downloaded all documents that are part of this bid.
 - *If you have not already downloaded all bid documents, you must download them now, in order to submit your bid. The screen will indicate which documents you've already downloaded.*
5. Click on the tab "Addenda & Emails" to be sure you have read and acknowledged all addenda that have been issued for this bid.
 - *The screen will display "yes" or "no" next to each addendum to indicate whether you have viewed and acknowledged it. If you have not previously acknowledged an addendum, do so now by clicking on the addendum to open and read it, then click on the "Acknowledge" button on the lower left hand corner of screen.*
6. To begin entering your bid, click on "Place eBid" on the lower right corner of the screen. The bid "Terms and Conditions" will pop up with a button for you to click "Accept" to acknowledge your agreement to the terms of the bid.
7. Enter the Respondee information on the "Detail" tab.
8. Click the "Attach" button on the "Attachments" tab, browse to your scanned Bid Submittal Documents, and upload all Bid Submittal Documents as a single PDF file.
9. Go to the "Line Items" tab and enter your unit prices on each line. The system will calculate the extended costs and grand total for you.
10. When you have finished entering all pricing and attachments, click on the "Save" button. This saves your bid as a draft for you to review or revise as needed anytime up to the bid submittal deadline. When you are ready to submit your bid, click the "Submit" button. You will receive a confirming message that looks like this:

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436



Note: E-Bids are sealed and cannot be viewed by the City until the closing date and time. As noted in the screen print above, if you need to withdraw your bid, you may do so any time before the bid deadline, by going back into the system and selecting "withdraw".

Please begin entering your bid in sufficient time to complete and submit it prior to the stated deadline. The official closing time for the bid is determined, and controlled, by the electronic clock in the bid management system. Once the deadline is reached, the system will not allow any bids to be submitted, and any in process that are not completed will be rejected. The amount of time required to enter and submit your bid depends on the complexity of the bid and the processing speed of your server and internet connections.

Technical Support

In the event you encounter technical difficulties during the uploading process, please contact the Planet Bids, BidsOnline system team as shown below (M-F from 8 a.m. to 5 p.m.):

support@planetbids.com or call 818-992-1771, ext. 0

Bid prices must be entered and the bid proposal packet must be uploaded to the BidsOnline system no later than the date and time indicated in the Notice Inviting Bids. No late bids will be accepted. No other method of bid submittal will be accepted.

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

INFORMATION REQUIRED OF BIDDERS

In determining the lowest “responsible” bidder, consideration will be given to the general competency of the bidder in regard to the work covered by the Bid Proposal. To this end, each proposal shall be supported by a statement of the Bidder’s experience on this form. **Failure of the Bidder to provide requested information in a complete and accurate manner shall render the bid non-responsive.** Additionally, the City reserves the right to disqualify or refuse to consider a proposal if a Bidder is determined to be non-responsible in accordance with Irvine Municipal Code § 2-12-103 “Determination of Contractor Non-Responsibility.”

The Bidder shall supply the following information. Use additional sheets as necessary.

1. Contact person name: _____ Email: _____
Address: _____
Telephone: () _____ Fax: () _____
2. Type of firm (Individual, Partnership, or Corporation): _____
3. State Contractor’s License Number and Classification: _____
4. DIR Registration Number: _____ Expiration Date _____
5. Number of years your firm has operated as a contractor: _____
6. Number of years your firm operated under its present business name: _____
7. List the **names and addresses** of all principals or officers authorized to bind your firm.

Name:	Address:

8. List any project(s) your firm has **failed to complete** within the last five years due to a termination of contract. For each project, list the type of project, client’s name, contact person, current telephone number, email address, and provide a brief description of the grounds for the termination.

Check appropriate box: None ☐ See list below ☐

Type of Project	Client Name	Contact Person	Contact Phone No.
-----------------	-------------	----------------	-------------------

Bidder’s Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

			and email address
Description:			

Type of Project	Client Name	Contact Person	Contact Phone No. and email address
Description:			

Type of Project	Client Name	Contact Person	Contact Phone No. and email address
Description:			

9. List projects of similar nature to the **Annual Street Rehabilitation and Slurry Seal project** your firm is **currently** constructing. For each project, list the type of project, contract amount, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: None ☐ See list below ☐

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address
Description:				

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address
Description:				

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

Description:				

10. List projects of a similar nature to the **Annual Street Rehabilitation and Slurry Seal project** your firm has **completed** within the last five years. For each project, list the type of project, contract amount, date of completion, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: **None** ☐ **See list below** ☐

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

11. List the name of the person(s) (**A MINIMUM OF ONE**) who inspected the site of the proposed work for your firm.

Name:	Date of Inspection:

12. Complete the following in conformance with Labor Code Section 1725.5

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311901
BID No. 19-1436

Name of Subcontractor	Registered with DIR?	DIR Registration No.
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	

13. If requested by the City, the Bidder shall furnish a notarized financial statement, financial data, or other information and references sufficiently comprehensive to permit an appraisal of its current financial condition or ability to perform the work.

Failure to furnish information upon request will render the bid nonresponsive.

All of the above statements regarding Contractor's experience and financial qualifications are submitted in conjunction with the Bid Proposal, as a part thereof, and the truthfulness and accuracy of the information is guaranteed by the Bidder.

Bidder's Name: _____

THE CITY OF IRVINE RESERVES THE RIGHT TO REJECT ALL BIDS

The undersigned understands the contract time limit allotted for the completion of the work required by the Contract is **One Hundred Twenty (120) Working Days**.

The undersigned agrees, if awarded the Contract, to sign the Contract and furnish the necessary insurance certificates and bonds within ten (10) days of the date specified in the Notice of Award of Contract, not including Saturdays, Sundays and legal holidays, and to begin work within ten (10) Working Days from the date specified in the City's Notice to Proceed. Contract time accounting shall begin on the date shown in the Notice to Proceed.

Accompanying this Bid Proposal is **(check appropriate box)**:

☐ **Cash** ☐ **Cashier's Check** ☐ **Certified Check** ☐ **Bid Bond**

Sign Here if Individual:

(Signature) _____

(Print Name) _____

(Address) _____

Affix notary's acknowledgement

Sign Here if Co-Partnership:

Co-Partnership Name of Firm: _____

(Address) _____

Members Signing:

(Signature) _____

(Print Name) _____

(Address) _____

(Signature) _____

(Print Name) _____

(Address) _____

Affix notary's acknowledgement

Sign Here if Corporation:

(Name of Corporation) _____

(Address) _____

Officers of Corporation Signing:

(Signature) _____

(Print Name) _____

(Title) _____

And

(Signature) _____

(Print Name) _____

(Title) _____

If executed by other than President and Secretary of the Corporation, attach a certified copy of resolution authorizing signature on behalf of the Corporation.

Affix notary's acknowledgement

LIST OF SUBCONTRACTORS

The Bidder shall list each subcontractor performing work in an amount in excess of one-half of one percent (1/2%) of the prime contractor's total bid, or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent (1/2%) of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. Complete columns (1) and (2) and submit with the bid. Complete columns (3) and (4) and submit with the bid or hand-deliver to the Receptionist for the Purchasing Agent at the reception desk located on the first floor of the Civic Center building at the City of Irvine, located at 1 Civic Center Plaza, Irvine, California 92606-5207 within 24 hours after the bid opening. Failure to provide complete information in columns (1) through (4) within the time specified shall render the bid non-responsive.

Subcontractors listed must not be debarred from performing the designated work.

BUSINESS NAME and LOCATION (1)	CONTRACTOR LICENSE NUMBER (2)	BID ITEM NUMBERS (3)	PERCENTAGE OF BID ITEM SUBCONTRACTED (4)*

Information must be typed or clearly printed.

*** If you are subcontracting a whole bid item insert one hundred percent (100%), if less insert actual percentage.**

NON-COLLUSION DECLARATION-CONTRACTOR
To be Executed by Bidder and Submitted with Bid
City of Irvine Bid No. 19-1436

The undersigned declares:

I am the _____ [title] of _____ [company name], the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Signature

Print Name

FORM OF BID BOND

ANNUAL STREET REHABILITATION AND SLURRY SEAL,
CIP No. 311901
Bid No. 19-1436

(10% of the Proposal Amount)

KNOW ALL PERSONS BY THESE PRESENTS that we _____
_____ as Principal, and _____
_____ as Surety, are held and firmly bound unto City of Irvine, hereinafter
called the City in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, we bind
ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly
by these presents.

The conditions of this obligation are such that whereas the Principal submitted to the City a
certain Bid Proposal, attached hereto and hereby made a part hereof, to enter into a
contract in writing for the **ANNUAL STREET REHABILITATION AND SLURRY SEAL,**
CIP No. 311901 and will furnish all required certificates of insurance and bonds as
required by the Contract.

NOW THEREFORE, if said Bid Proposal shall be rejected; or in the alternate, if said Bid
Proposal shall be accepted, and the Principal shall execute and deliver a contract in the
prescribed Form of Contract, shall deliver certificates evidencing that the required
insurance is in effect and shall execute and deliver Performance and Payment Bonds in
the forms prescribed, and shall in all other respects perform the Contract created by the
acceptance of said Bid Proposal, then this obligation shall be void; otherwise this
obligation shall remain in force and effect, it being expressly understood and agreed that
the liability of the Surety for any and all default of the Principal hereunder shall be the
amount of this obligation as herein stated. In the event suit is brought upon this bond by
City and judgment is recovered, Surety shall pay all costs incurred by City in said suit,
including a reasonable attorney's fee to be fixed by the court.

The Surety, for the value received, hereby stipulates and agrees that the obligations of
said Surety and its bond shall in no way be impaired or affected by an extension of the
time within which the City may accept such a Bid Proposal; and said Surety does hereby
waive notice of any such extension.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this
____ day of _____, 20____, the name of each party being hereto written below
and these presents duly signed by each party's undersigned representative, pursuant to
authority of its governing body. This bond shall be authenticated by way of notarized
acknowledgment, including a copy of the power of attorney, for the Surety.

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

FALSE CLAIMS

Bidder shall complete the **False Claims Act Certification** below or in the alternative, provide the information requested under **False Claims Act Violations** below. **Failure to certify or provide the requested information shall render the bid non-responsive.**

"False Claims Act" as used herein is defined as either or both the Federal False Claims Act, 31 U.S.C. § 3729, *et seq.*, and the California False Claims Act, Government Code § 12650, *et seq.*

FALSE CLAIMS ACT CERTIFICATION

I _____ hereby certify that neither
Print name

Contractor name
nor _____
Name of qualifying person licensed by Contractors State License Board

has been determined by a court or tribunal of competent jurisdiction to have violated the False Claims Act as defined above.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____
(Signature of owner, officer, manager or licensee responsible for submission of Bid Proposal)

FALSE CLAIMS ACT VIOLATIONS

With regard to any determinations by a tribunal or court of competent jurisdiction that the False Claims Act, as defined above, has been violated by (1) the Contractor submitting this Bid Proposal or (2) the qualifying person licensed by the State Contractors License Board to perform the work described in this Bid Proposal, shall provide on a separate sheet the following information: (1) the date of the determination of the violation, (2) the identity of the tribunal or court, (3) the identity of the government contract or project involved, (4) the identity of the government department involved, (5) the amount of fine imposed, and (6) any exculpatory information of which the Agency should be aware.

CIVIL LITIGATION AND ARBITRATION HISTORY

Bidder shall provide the certification or information requested below. **Failure to certify or provide such certification or information shall render the bid non-responsive.**

For five (5) years preceding the submittal date of this Bid Proposal, identify civil litigation and arbitration arising out of the performance of a construction contract within the State of California in which the (1) Contractor submitting this bid proposal or (2) the qualifying person licensed by the State Contractors Licensing Board to perform the work described in this Bid Proposal was a named as a party in a lawsuit brought by or against the project owner or any action to confirm, vacate or modify an arbitration award involving an owner.

CIVIL LITIGATION AND ARBITRATION CERTIFICATION

If the Bidder has no civil litigation and arbitration history to report as described above, complete the following:

I _____ certify that neither
Print name

_____ name

nor _____
se Board

has been involved in civil litigation and arbitration as described above.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____
(Signature of owner, officer, manager or licensee responsible for submission of Bid Proposal)

Do not include litigation and arbitration which are limited solely to enforcement of mechanics' liens or stop notices. Provide on a separate sheet (1) the name and court case identification number of each case, (2) the jurisdiction in which it was filed, and (3) the outcome of the litigation, e.g. whether the case is pending, a judgment was entered, a settlement was reached, or the case was dismissed.

CRIMINAL CONVICTIONS

Bidder shall provide the certification or information requested below. **Failure to certify or provide such certification or information shall render the bid non-responsive.**

CRIMINAL CONVICTION CERTIFICATION

If the Bidder has no criminal convictions to report as described above, complete the following:

I _____ hereby certify that neither
Print name

_____ ne _____

nor _____

has been convicted of a criminal violation as described above.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____

For the five (5) years preceding the date of this Bid Proposal is due, identify on a separate sheet any criminal conviction in any jurisdiction in the United States for a violation of law arising out of the performance of a construction contract (1) by the Contractor submitting this Bid Proposal or (2) by the qualifying person licensed by the State Contractors License Board to perform the work described in the Bid Proposal.

Provide on the following page labeled "Criminal Convictions Information." (1) the date of conviction, (2) the name and court case identification number, (3) the identity of the law violated, (4) the identity of the prosecuting agency, (5) the contract or project involved, (6) the punishment imposed, and (7) any exculpatory information of which the Agency should be aware.

VIOLATION OF LAW OR A SAFETY REGULATION

Has the Bidder, any officer of the Bidder, or any employee who has proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of a law or a safety regulation?

☐ **Yes** ☐ **No**

If the answer is yes, explain the circumstances in the following space.

Name of bidder (print)

Signature

Address

State Contractors' License No. & Classification

City

Zip Code

Telephone

CONSTRUCTION CONTRACT FOR CAPITAL IMPROVEMENTS

CITY OF IRVINE

ANNUAL STREET REHABILITATION AND SLURRY SEAL CIP 311901 BID NO. 19-1436

This Contract made and entered into this _____ day of _____, 20____, by and between City of Irvine, a municipal corporation of the State of California, hereinafter referred to as "CITY" and _____, hereinafter referred to as "CONTRACTOR."

W I T N E S S E T H:

That the CITY and the CONTRACTOR, for the consideration hereinafter named, mutually agree as follows:

1. The complete Contract includes all of the Contract Documents, which are incorporated herein by this reference, to wit:
 - a) Permits and Agreements
 - b) Contract
 - c) Addenda
 - d) Instructions to Bidders, Proposal Requirements and Conditions
 - e) Special Provisions
 - f) Contract Plans
 - g) Standard Plans
 - h) Standard Specifications
 - i) Reference Specifications

The Contract Documents are complementary, and that which is required by one shall be as binding as if required by all.

2. CONTRACTOR shall provide and furnish all labor, materials, necessary tools, expendable equipment, and all utility and transportation services required for the following work of improvement:

Pavement maintenance and repair of various streets, bike trails, and parking lots within the City of Irvine. This work includes, but is not limited to, asphalt pavement cold milling; installation of pavement fabric; asphalt concrete pavement overlay; slurry seal application; removal and replacement of various concrete improvements such as sidewalk, ramps, and curb and gutters; adjustment of survey monument, water valve, sewer cleanout and manhole frames and covers to grade; installation of striping and pavement markings; providing public notifications, traffic control, and all appurtenant items thereto; and other items not mentioned here, but are required by the plans and the Special Provisions.

3. CONTRACTOR agrees to perform all the said work and furnish all the said materials at his own cost and expense that are necessary to construct and complete in strict conformance with Contract Documents and to the satisfaction of the Engineer, the work hereinafter set forth in accordance with the Contract therefore adopted by the City Council.

4. CITY agrees to pay and CONTRACTOR agrees to accept in full payment for performance of this work of improvement as described, the stipulated sum of

DOLLARS (\$_____) the "Contract Price."

CITY agrees to make progress payments and final payment in accordance with the method set forth in the Special Provisions.

5. CONTRACTOR agrees to commence construction of the work provided for herein within ten (10) Calendar Days after the date specified in the Notice to Proceed, and to continue diligently in strict conformance with Contract Documents and without interruption, and to complete the construction thereof within **One Hundred Forty (140) Working Days** after the date specified in the Notice to Proceed.

6. Time is of the essence of this Contract, and it is agreed that it would be impracticable or extremely difficult to ascertain the extent of actual loss or damage which the CITY will sustain by reason of any delay in the performance of this Contract. It is, therefore, agreed that CONTRACTOR will pay as liquidated damages to the CITY the following sum: **Five Thousand Dollars (\$5,000)** per per Calendar Day, for each and every Calendar Days delay in finishing the Work in excess of the number of Working Days prescribed above. If liquidated damages are not paid, as assessed by the CITY, the CITY may deduct the amount thereof from any money due or that may become due the CONTRACTOR under this Contract in addition to any other remedy available to CITY. By executing this Contract, CONTRACTOR agrees that the amount of liquidated damages is reasonable and shall not constitute a penalty.

7. CONTRACTOR will maintain and will require all subcontractors to maintain valid and current Department of Industrial Relations (DIR) Public Works Contractor registration during the term of this project. CONTRACTOR shall notify the CITY in writing immediately, and in no case more than twenty-four (24) hours, after receiving any information that CONTRACTOR'S or any of its subcontractor's DIR registration status has been suspended, revoked, expired, or otherwise changed.

8. CONTRACTOR will pay, and will require all subcontractors to pay, all employees on said Contract a salary or wage at least equal to the prevailing salary or wage established for such work as set forth in the wage determinations and wage standards applicable to this work, a copy of which is on file in the office of the City Clerk of the City of Irvine. Federal prevailing wage rates apply for federally funded projects. Travel and subsistence pay shall be paid in accordance with Labor Code § 1773.1.

9. CONTRACTOR shall be subject to the penalties in accordance with Labor Code of § 1775 for each worker paid (either by him or by any subcontractors under him) less than the prevailing rate described above on the work provided for in this Contract.
10. CONTRACTOR and subcontractors shall comply with Labor Code § 1810 and § 1811 which stipulates that eight hours labor constitutes a legal day's work, and § 1812 which stipulates that the CONTRACTOR and subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work performed under the terms of the Contract. Failure to comply with these sections of the Labor Code will subject the CONTRACTOR to penalty and forfeiture provisions of the Labor Code § 1813.
11. CONTRACTOR will comply with the provisions of Labor Code § 1777.5 pertaining to the employment of apprentices to the extent applicable to this Contract.
12. CONTRACTOR, by executing this Contract, hereby certifies:

“I am aware of, and will comply with the Labor Code § 3700 by securing payment for, and maintaining in full force and effect for the duration of the contract, complete Workers’ Compensation Insurance, and shall furnish a Certificate of Insurance to the Agency before execution of the Contract. The CITY, its officers, or employees, will not be responsible for any claims in law or equity occasioned by failure of the CONTRACTOR to comply with this paragraph.”

CONTRACTOR further agrees to require all subcontractors to carry Workers’ Compensation Insurance as required by the Labor Code of the State of California.

13. CONTRACTOR shall, concurrent with the execution of this Contract, furnish two bonds approved by the CITY, one in the amount of One Hundred Percent (100%) of the Contract Price, to guarantee the faithful performance of the work “Performance Bond”, and one in the amount of One Hundred Percent (100%) of the Contract Price to guarantee payment of all claims for labor and materials furnished “Payment Bond.” This Contract shall not become effective until such bonds are supplied to and approved by the CITY.
14. CONTRACTOR shall, prior to commencing work, furnish certificates evidencing compliance with all requirements of the Contract Documents pertaining to insurance.
15. Any amendments to any of the Contract Documents must be in writing executed by the CONTRACTOR and the CITY. Any time an approval, time extension, or consent of the CITY is required under the Contract Documents, such approval, extension, or consent must be in writing in order to be effective.
16. This Contract contains all of the agreements and understandings of the parties and all previous understandings, negotiations, and contracts are integrated into

and superseded by this Contract.

17. In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Contract shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Contract which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder.
18. The persons executing this Contract on behalf of the parties hereto warrant that they are duly authorized to execute this Contract on behalf of said parties and that, by so executing this Contract, the parties hereto are formally bound to the provisions of this Contract.
19. This Contract shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns.
20. In performing its obligations and duties under this Contract, each party shall comply with all applicable local, state, and federal laws, regulations, rules, standards and ordinances.
21. In the event any action is brought between the parties hereto relating to this Contract or the breach thereof, the prevailing party in such action shall be entitled to recover from the other party reasonable expenses, attorneys' fees and costs in connection with such action or proceeding.
22. This Contract may be executed by the parties in counterparts, which counterparts shall be construed together and have the same effect as if all of the parties had executed the same instrument.
23. This Contract is to be governed by the laws of the State of California.

IN WITNESS WHEREOF, the said CONTRACTOR and the Director of Public Works, City Manager, Mayor and City Clerk of the CITY have caused the names of said parties to be affixed hereto, the day and year first above written.

CONTRACTOR

(If Corporation, 2 signatures are required)

By _____

Print Name

Title

By _____

Print Name

Title

CITY OF IRVINE
A Municipal Corporation

Donald P. Wagner
Mayor of the City of Irvine

City Manager of the City of Irvine

Manuel Gomez
Director of Public Works

ATTEST:

Molly McLaughlin
City Clerk

APPROVED AS TO FORM:
RUTAN & TUCKER, LLP

Jeffrey Melching

PERFORMANCE BOND

ANNUAL STREET REHABILITATION AND SLURRY SEAL BID NO. 19-1436

KNOW ALL PERSONS BY THESE PRESENTS that we _____, as Principal, and _____ as Surety, are held and firmly bound unto City of Irvine, hereinafter called the City in the sum of _____ (\$ _____) (this amount being not less than one hundred percent (100%) of the total bid price of the contract awarded by the owner to the Principal), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract attached hereto, with the City of Irvine.

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original terms thereof, and any extensions thereof that may be granted by the Owner with or without notice of the Surety, and during the life of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, then this obligation shall be void otherwise this obligation shall remain in full force and effect.

Further, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modifications of the Contract Documents and/or of the Work to be performed thereunder shall in any way affect its obligations on this bond; and it hereby waives notice of any and all such changes, extensions of time, and alterations or modifications of the contract documents and/or of the work to be performed thereunder.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by the City in successfully enforcing such obligation, and all to be taxed as costs and included in any judgment rendered by a court of law.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this _____ day of _____, 20____, the name of each party being hereto written below and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body. This bond shall be authenticated by way of notarized acknowledgment, including a copy of the power of attorney, for the Surety.

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

PAYMENT BOND

ANNUAL STREET REHABILITATION AND SLURRY SEAL BID NO. 19-1436

KNOW ALL PERSONS BY THESE PRESENTS that we _____, as Principal, and _____ as Surety, are held and firmly bound unto City of Irvine, hereinafter called the City in the sum of _____ (\$ _____) (this amount being not less than one hundred percent (100%) of the total bid price of the contract awarded by the owner to the Principal), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract, attached hereto, with the City of Irvine.

NOW THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of each contract that may hereafter be made, then this obligation shall be void, otherwise this obligation shall remain in full force and effect.

The condition of this obligation is such that, if said Principal or his subcontractors, or heirs, executors, administrators, successors, or assigns thereof, shall fail to pay any of the persons named in the Civil Code § 9100 for any material used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or shall fail to pay any amount due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant or any amount required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his subcontractors with respect to such work and labor, then said Surety will pay and, also, in case suit is brought upon the bond, will pay a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of all persons named in the aforesaid Civil Code § 9100 to give a right of action to them or their assigns in any suit brought upon the bond.

Further, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modification of the Contract Documents or of the Work to be performed thereunder shall in any way affect its obligations on this bond; and it hereby waives notice of any and all such changes, extensions of time, and alterations or modifications of the Contract Documents and/or of the work to be performed thereunder.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this ____ day of _____, 20____, the name of each party being hereto written below and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body. This bond shall be authenticated by way of notarized acknowledgment, including a copy of the power of attorney, for the Surety.

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

SPECIAL PROVISIONS

- A. THESE ADDITIONS, DELETIONS, AND AMENDMENTS MODIFY THE SPECIFICATIONS IN THE “STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION”, 2015 EDITION.
- B. THESE ADDITIONS, DELETIONS, AND AMENDMENTS SHALL TAKE PRECEDENCE IN THE EVENT OF A CONFLICT WITH ANY STANDARD SPECIFICATIONS.
- C. AS A CONVENIENCE, THESE ADDITIONS, DELETIONS, AND AMENDMENTS HAVE BEEN ARRANGED IN A FORMAT THAT PARALLELS THE “STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION”, 2015 EDITION.

PART 1 - GENERAL PROVISIONS

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

REVISE as follows:

1-1 GENERAL. *ADD the following term:*

The word *provide* shall mean furnish and install.

1-2 TERMS AND DEFINITIONS. *MODIFY to ADD the following:*

Acceptance, Final Acceptance – Formal action by the Agency acknowledging the Work is complete.

Agency/Board/City – The City of Irvine, a municipal corporation.

Agency Representative – The person or engineering/architectural firm Agency authorizes to represent it during the performance of the Work by the Contractor and until Final Acceptance. The Agency Representative means the Agency Representative or his assistants.

Calendar Day – The 24-hour day denoted on the calendar.

Calendar Month – The period including the first through the last day of a month.

City – See Agency.

Clarification – Verbal or written interpretation of Contract Documents by the Agency Representative to clarify intent, procedures, materials or processes with no change in contract sum or time.

REPLACE the definition for “Engineer” with the following:

Engineer – The City Engineer acting either directly or through the Agency Representative.

Field Order – Authorization by Agency Representative to proceed with Change Order work after completion of negotiations, but before the issuance of the Change Order.

Laboratory – The laboratory authorized by the Agency or the Agency Representative to test material and work involved in the project.

Major Bid Item – A single Contract item constituting ten percent (10%) or more of the original Contract Price.

Request for Quotation – Contemplated revision of Contract Documents by the Agency requesting detailed information from the Contractor on impacts to contract sum or contract time.

State Standard Specifications – Standard Specifications issued by the State of California, Department of Transportation, 2015.

Traffic Control Devices – All signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or bikeway, by authority of the Engineer.

1-3. ABBREVIATIONS

1-3.2 Common Usage. *MODIFY to ADD the following:*

Abbreviation	Word or Words
CSMP	Construction Site Monitoring Program
DBE	Disadvantaged Business Enterprise
ESA	Environmentally Sensitive Area
HMA	Hot Mix Asphalt
NOI	Notice of Intent
SWMP	Storm Water Management Plan
SWRCB	State Water Resources Control Board
WPCP	Water Pollution Control Program
WDID	Waste Discharge Identification Number

DELETE the abbreviation of MUTCD and SUBSTITUTE with the following:

MUTCD	California Manual on Uniform Traffic Control Devices
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1-3.3 Institutions. *MODIFY to ADD the following:*

Abbreviation	Word or Words
AI	The Asphalt Institute
AIA	American Institute of Architects
APWA	American Public Works Association
AREMA	American Railway Engineering and Maintenance of Way Association
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
CRSI	Concrete Reinforcing Steel Institute
NFPA	National Fire Protection Association
PCA	Portland Cement Association
SSPC	Steel Structures Painting Council
UBC	Uniform Building Code, Pacific Coast Building Officials Conference of the International Conference of Building Officials

SECTION 2 - SCOPE AND CONTROL OF THE WORK

REVISE as follows:

2-1 AWARD AND EXECUTION OF THE CONTRACT. *REVISE as follows:*

2-1.1 Alternate Bid Items. *ADD the following Subsection:*

Bidders shall be required to provide a bid for all Alternate Bid Items in the Bidders Proposal, if applicable. **Failure to bid on all Base Bid and Alternate Bid Items may render the bid Non-Responsive.**

Additional working days will not be granted for the work in the Alternate Bid Items. Bidders shall be required to complete all base bid and alternate bid work within the original time for completion. Execution of the Alternate Bid Items by Contract Change Order shall not entitle the Bidder/Contractor to additional working days when the change order is issued prior to the first working day or when the change order work does not affect the critical path after the first working day.

2-2 ASSIGNMENT. *MODIFY to ADD the following:*

The performance of the Contract may not be assigned, except upon the written consent of the Agency. Consent will not be given to any proposed assignment that would relieve the original Contractor or its Surety of their responsibilities under the Contract, nor will the Agency consent to any assignment of any part of the Work under the Contract.

Assignment of this Contract shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the work called for under the Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

2-3 SUBCONTRACTS.

2-3.1 General. *MODIFY to ADD the following:*

If the Contractor subcontracts any part of this Contract, the Contractor shall be as fully responsible to the Agency for the acts and omissions of his subcontractor as he is for the acts and omissions of persons directly employed by him. Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the Agency. The Contractor shall bind every subcontractor to be bound by the terms of the Contract Documents as applicable to his work.

Debarred contractors shall not be employed on the Work pursuant to the provisions of Labor Code § 1777.1 and the City of Irvine Council Ordinance No. 08-10. The Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations website:

<http://www.dir.ca.gov/dlse/debar.html>

A list of individuals, firms and organizations debarred, suspended or who have voluntarily excluded themselves from Federal Procurement and Non-Procurement Programs is maintained by the US General Services Administration. This excluded parties list is available from the website: <http://www.sam.gov>

The Contractor and each of its subcontractors shall maintain a valid and current Department of Industrial Relations (DIR) Public Works Contractor registration during the term of this project.

Prior to including a subcontractor's name on the bid, the Contractor shall be responsible for verifying that each of its subcontractors are properly licensed and not debarred from performing the designated work.

This requirement shall be enforced as follows: Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the Contract.

If any subcontractor or person employed by the Contractor is deemed by the Engineer to be incompetent or to act in an improper manner, at the request of the Engineer, they shall be dismissed immediately from the job and shall not be employed again on the Work.

A copy of each subcontract is required to be filed with the Agency before the subcontractor begins work. Each subcontract shall contain a reference to the Contract between the Agency and the Contractor, and the terms of that Contract and all parts thereof shall be made a part of such subcontract insofar as applicable to the work covered thereby. Each subcontract shall provide for its annulment by the Contractor at the order of the Agency if in the Agency's opinion the subcontractor fails to comply with the requirements of the Contract.

2-3.2 Self Performance. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall perform, with its own organization, Contract work amounting to at least 15 percent of the Contract Price on building/facility contracts, and at least 50 percent of the Contract Price on all other Public Works contracts except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal. Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

The provisions in 2-3.2 of these Special Provisions require that the Contractor shall perform with the Contractor's own organization contract work amounting to not less than 50 percent of the original Contract Price is not changed by the Federal Aid requirement specified under "Required Contract Provisions Federal Aid Construction Contracts" of these Special Provisions that the Contractor perform not less than 30 percent of the original contract work with the Contractor's own organization.

2-3.3 Status of Subcontractors. *MODIFY to ADD the following:*

The City will not conduct business with an individual, firm or organization, and the Contractor shall not employ or otherwise use any subcontractor, supplier, or equipment vendor at any tier that is on the City's debarment list, the Department of Industrial

Relations debarment list, or on the US General Services Administration "List of Parties Excluded from Federal Procurement and Non Procurement Programs."

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General. *ADD the following after the 2nd paragraph:*

All work of the Contract including, but not limited to, the general nature and character of the work area and conducting of Contractors' operations shall be performed in accordance with the Standard Specifications for Public Works Construction, 2015 edition, and all supplements thereto, except as modified in these Special Provisions and as follows:

Work to be performed which is directly related to the construction and/or modification of traffic, striping, signing, markings or signals; work within State right of way; and, work which is directly related to the construction of bridges and bridge appurtenances shall be performed in accordance with the State Standard Specifications, current edition as of bid date.

As applicable, unless modified elsewhere in these Special Provisions, Work of the Contract shall conform to current editions of: Uniform Building, Plumbing, Mechanical Codes; Uniform Fire Code; National Electrical Code; and, City of Irvine amendments thereto.

DELETE last paragraph in its entirety and SUBSTITUTE with the following:

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy between the Specifications and the Plans or between either of them and the physical conditions at the site of the work or finds any error or omission in any of the Plans or in any survey, the Contractor shall promptly notify the Agency of such discrepancy, error, or omission. If the Contractor observes that any plans or specifications are at variance with any applicable law, ordinance, regulation, order, or decree, he shall promptly notify the Agency in writing of such conflict.

The Agency, on receipt of any such notice, will investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after its discovery of such an error, discrepancy, or conflict that is directly or indirectly affected by such error, discrepancy, or conflict, will be at its own risk and it shall bear all cost arising therefrom.

The Agency will provide, free of charge, three (3) copies of Plans and Special Provisions for the Contractor and one (1) copy of Plans and Special Provisions for each subcontractor listed in the Bidder's Proposal. Any Plans or Special Provisions required by the Contractor/subcontractor in addition to the above can be provided by Agency at Contractor's expense. The Contractor shall keep one set of Plans and Special Provisions in good order and available to the Agency Representative at the site of the Work.

2-5.2 Precedence of Contract Documents. *DELETE the order of precedence and SUBSTITUTE with the following:*

- a) Permits and Agreements
- b) Change Orders and/or Supplemental Agreements; whichever occurs last
- c) Contract

- d) Addenda
- e) Instructions to Bidders, Proposal Requirements and Conditions
- f) Bid/Proposal
- g) Special Provisions
- h) Contract Plans
- i) Standard Plans
- j) Standard Specifications
- k) Reference Specifications

ADD:

2-5.2.1 Interpretation of Plans and Specifications. Figured dimensions on Plans shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Specifications shall govern as to materials, workmanship, and installation procedures. Plans and Specifications requiring higher quality material or workmanship shall prevail. In the event of any discrepancy between any drawings and the figures thereon, the figures shall be taken as correct. In the event of any doubt or question arising respecting the true meaning of the Specifications, reference shall be made to Engineer whose decision thereon shall be final.

2-5.3 Submittals.

2-5.3.1 General. *MODIFY to ADD the following:*

The review period begins anew upon each submittal or resubmittal.

In providing specified submittals, the Contractor certifies that they are complete in all respects and all materials, equipment, and other work shown thereon conforms to the Contract Documents.

Where a manufactured item is designed or engineered by the manufacturer, fabricator, subcontractor, consultant or designee, the drawings and supporting calculations shall be stamped and signed by an engineer registered by the State of California executing the design within the scope of his registration. Unless otherwise accepted by the Engineer, data shall be submitted only by the prime Contractor. Data that, in the opinion of the Engineer, are incomplete or have not been checked by the prime Contractor or are illegible will be considered as not complying with the Contract requirements and will be returned to the Contractor for resubmittal in the proper form. The City may make this determination at any time during the review period.

Data shall be submitted in a format similar to the arrangement of the applicable section(s) of the Specifications unless otherwise specified. Any submittal not following the format specified, and not conforming to the requirements listed below, will be returned for resubmittal without review.

- a) Data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices, the external connections, anchorages, and supports required, performance characteristics, dimensions needed for installation and correlation

with other materials and equipment, and all additional information as required in the detailed section(s) of the Contract Documents. Identify field dimensions; show relation to adjacent or critical features, work or products.

- b) Calculations to support the adequacy of the design in meeting specified performance ratings or requirements shall be submitted when required by the Specifications.
- c) Each drawing or data sheet shall be clearly marked with the name of the project, the Contractor's name, and references to applicable Specification paragraphs and Plan sheets. Submittals containing multiple drawings or data sheets shall be collated prior to submittal for review.
- d) Data sheets, catalog cuts or drawings showing more than the particular item under consideration shall be marked to cross out all but the applicable information. Submit only pertinent pages; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- e) Data submitted shall include drawings showing wiring and/or pipe layouts. Any changes proposed by the Contractor shall be stated in a cover letter and essential details of such changes shall be clearly shown in the data submitted.
- f) Present in a clear and thorough manner. Title each drawing with project name and number; identify each element of drawings by reference to sheet number and detail, schedule, or room number of Contract Documents.
- g) Provide manufacturer's preparation, assembly and installation instructions.
- h) Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures, and patterns, for Engineer's selection.
- i) Submit samples to illustrate functional characteristics of products, including parts and attachments. Label each sample with identification required for transmittal letter. Approved samples which may be used in the Work are indicated in the Specification section.
- j) Provide field samples of finishes for the Work, at location acceptable to Agency Representative, as required by individual Specifications section. Install each sample complete and finished. Finishes in place that have been accepted by the Agency Representative may be retained in completed work.

Submittals shall be accompanied by a letter of transmittal listing the contents of the submittal. Drawings shall show the name of the project, the name of the Contractor, and, if any, the names of suppliers, manufacturers, and subcontractors. Shop drawings shall be submitted with sufficient time for Agency's review and in orderly sequence in accordance with the progress schedule to cause no delay in prosecution of the Work. Drawings shall be submitted on 11"x17" or 24"x36" sheet sizes only. Any submittal not accompanied by such a transmittal, or where all applicable items on the form are not complete, will be returned for resubmittal.

A separate letter of transmittal shall be used for each specific item or class of materials or equipment for which a submittal is required. Transmittal of shop drawings on various

items using a single letter of transmittal will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates review of the group or package as a whole. Submittals transmitted by facsimile will not be accepted.

The Agency will return any submittal sent (1) without a transmittal letter, (2) with an incomplete form, or (3) by facsimile.

The Contractor shall assign a unique sequential number to each submittal package, which shall be clearly written in the space provided on the transmittal letter. This number shall be used in all correspondence to the Agency when referencing to a particular submittal. The Contractor shall be responsible for ensuring the same submittal number is not assigned to different submittal packages.

Resubmittals shall incorporate the original submittal number followed by the revision number (i.e., the first resubmittal of submittal #1 is numbered 1R1, the second 1R2, etc.). The Agency will return improperly numbered submittals without review. The Contractor shall indicate on the transmittal letter that either no exceptions to the Contract Documents are taken or deviations are submitted. All deviations indicated shall be listed on the transmittal letter and the Contractor shall be solely responsible for any omitted deviations. If any deviations are omitted, the Agency will return the submittal and the engineering data without review for resubmittal. Any consequences from the resulting delay shall be fully borne by the Contractor.

The Engineer's review of the Contractor's submittals will cover only general conformity to the Contract Documents. The Engineer's acceptance of drawings returned marked NO EXCEPTION TAKEN or RESUBMITTAL NOT REQUIRED (CORRECTIONS ARE NOTED) shall not constitute a blanket approval of dimensions, qualities, and details of the materials, equipment, device, or item shown, and does not relieve the Contractor from any responsibility for errors, omission or deviations from conforming to the Contract Documents. The Agency reserves the right to subsequently reject any previously accepted equipment, material, and/or construction method that deviates from the Contract Documents. When the drawings and data are returned marked CORRECT AND RESUBMIT, the corrections shall be made as noted thereon and as instructed by the Engineer, resubmittal shall be made in the same manner as the original submittal.

If the Engineer rejects the submittals, the Contractor is responsible for any subsequent time delays at no additional compensation from the Agency. Subject to these requirements, drawings and data, after final processing by the Engineer, shall become a part of the Contract Documents, and the work shown or described thereby shall be performed in conformity therewith unless otherwise required by the Engineer. In the event of conflict between accepted submittals and the other Contract Documents, the most stringent requirements shall apply unless the Agency has agreed in writing to less stringent requirements in response to a deviation listed on a submittal letter of transmittal.

No portion of the work requiring a submittal shall be commenced until the submittal has been reviewed by the Engineer and returned to the Contractor with a notation indicating that resubmittal is not required.

The review by the Engineer is only of general conformance with the design concept of the project, and general compliance with the Contract Documents and shall not be construed as relieving the Contractor of these full responsibilities for providing materials, equipment, and work required by the Contract; the proper fitting and construction of the Work; the accuracy and completeness of the submittals; selecting fabrication processes and techniques of construction; and performing the Work in a safe manner.

2-6 WORK TO BE DONE. *ADD the following after the 1st paragraph:*

The Contractor shall leave the Work area in a neat condition. Any work not shown in the Plans or Specifications but necessary to complete the Work according to law and governmental codes and regulations shall be performed by the Contractor as if in the Plans and Specifications.

The Contractor shall remove and dispose of all structures, debris, or other obstructions of any character necessary to accommodate the Work. Where such obstructions consist of improvements not required by law to be removed by the Agency thereof, all such improvements shall be removed, maintained, and permanently replaced by the Contractor at his expense.

2-8 RIGHT OF WAY. *DELETE the 1st sentence and SUBSTITUTE with the following:*

Rights of way, easements, agreements, licenses, or rights of entry (all referred to as right of way) for the Work have been provided by the Agency. Temporary right-of-way to construct one or more portions of the Work may also have been acquired by the Agency. If temporary right of way was acquired, the documents or their contractual terms and obligations are included in the Contract Documents. The Contractor shall comply with all the terms and obligations related to the physical use of the temporary right of way and its eventual return of the property to the owner. The Contractor shall schedule the Work that may include landscape establishment, maintenance periods, and final acceptance within the temporary right of way to start and finish within the time allotted in each temporary right of way agreement. Should the Work be delayed through no fault of the Agency, the Contractor shall be responsible for all costs incurred by the Agency to extend use of the temporary right of way.

MODIFY to ADD the following:

Work in the public right of way shall be done in accordance with the requirements of the permit issued by the public agency in whose right of way the Work is located in addition to conforming to the Contract Documents. If a permit or traffic control plan is not required, the Work shall conform to the standards set forth in the MUTCD.

The Contractor shall not allow his employees to use private property for any reason or to use water or electricity from such property without providing the City written permission from the owner. The Contractor shall comply with all applicable federal, state and local laws, ordinances, codes and regulations in performing any work or doing any activity on lands outside the public rights of way.

The Contractor shall hold harmless, indemnify, and defend the Agency, the Agency Representative and each of their officers, employees, and agents from all claims or suits for damages occasioned by such work or activity, whether done according to this section and with permission from the Agency or in violation of this section without

permission from the Agency. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any such claims or suits.

The Contractor shall comply with City of Irvine Municipal Code § 5-9-521 Construction Site and Vacant Property Security, and be fully responsible for locating and obtaining permission to use equipment yards or material storage site(s). The Contractor shall assume full responsibility and costs for property rental, site preparation, maintenance and cleanup in a manner satisfactory to the City and the property owner.

If, through the failure of the Agency to acquire or clear right of way, the Contractor sustains loss which could not have been avoided by the judicious handling of forces, equipment and plant, the Contractor will be paid an amount as the Engineer may find to be a fair and reasonable compensation for such part of the Contractor's actual loss as, in the opinion of the Engineer, was unavoidable, determined as follows:

Compensation for idle time of equipment will be determined in the same manner as determinations are made for equipment used in the performance of extra work paid for as provided in 3-3 with the following exceptions:

- a) The right of way delay factor for each classification of equipment shown in the State of California, Department of Transportation publication entitled "Equipment Rental Rates and Labor Surcharge," current edition at the time of bid opening will be applied to such equipment rental rate.
- b) The time for which such compensation will be paid will be the actual normal working time during which such delay condition exists, but in no case will exceed eight (8) hours in any day.
- c) The days for which compensation will be paid will be the Calendar Days, excluding Saturdays, Sundays and legal holidays, during the existence of such delay.

Actual loss shall be understood to include no items of expense other than idle time of equipment and necessary payments for idle time of men, cost of extra moving of equipment, and cost of longer hauls. Compensation for idle time of equipment will be determined, as provided herein, and compensation for idle time of men will be determined as provided in 3-3.

If the performance of the Contractor's work is delayed as a result of the failure of the City to acquire or clear right of way, an extension of time determined pursuant to the provisions in 6-6 will be granted.

2-9 SURVEYING. *Revise as follows:*

2-9.1 Permanent Survey Markers. *DELETE in its entirety and SUBSTITUTE with the following:*

This contract involves removal and replacement of various pavements, including Asphalt Concrete and/or Portland Cement Concrete improvements in which permanent survey markers and ties may be present.

The Contractor shall engage a licensed land surveyor registered in the State of California to perform Pre-Construction and Post-Construction Surveying for the preservation of all survey monuments and ties thereto. All surveying shall be in accordance with the California Land Surveyor's Act, California Business and Professions Code, the Caltrans

Survey Manual and all other applicable laws.

Existing Monuments (Pre-Construction)

Pre-construction records research, survey monument reconnaissance, tie out all existing monuments (Boundary, Lot/Parcel, Centerline monuments and tie points thereto) and file initial Corner Records with the County Surveyor's Office before start of construction and field-check all existing monuments. Contractor shall provide a copy of all Pre-Construction Corner Records submitted to the County prior to beginning any construction activity within a project zone as identified Section 6-1.3.2 of the Special Provisions.

Resetting Monuments (Post-Construction)

Restore all survey monuments and ties within the project limits disturbed by construction activities. Prepare and file final verification Corner Records with the County Surveyor's Office immediately after the completion of construction. Provide a copy of all records submitted to the County within two (2) working days.

Full Compensation for **CONSTRUCTION SURVEYING** and for conforming to all of the requirements of Section 2-9 shall be paid at the **Lump Sum (LS)** price bid and no separate compensation shall be allowed therefore. Full Compensation shall include, but not be limited to furnishing all labor, materials, tools, equipment, incidentals, filing fees, and for doing all the work as specified in the Standard Specifications and these Special Provisions, and as directed by the City Representative.

2-9.2 Survey Service. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall engage a licensed land surveyor registered in the State of California to perform any surveying and/or calculations required by the Work of this Contract.

Construction stakes shall not be provided for any part of the work and contractor is responsible for constructing all portions of the project and providing any construction surveying made necessary by this contract.

ADD:

2-9.5 Conformity with Contract Documents. *ADD the following New Subsection:*

The Work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the Plans or set forth in the Specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Agency Representative shall be the sole judge as to whether the work or materials deviate from the Plans and Specifications and his decision as to any allowable deviations there from shall be final.

If specific lines, grades, and dimensions are not shown on the Plans, those furnished by the Agency Representative shall govern.

2-10 AUTHORITY OF BOARD AND ENGINEER. *MODIFY to ADD the following:*

The Contractor is subject to the provisions of Government Code § 8546.7, which provides that this Contract and related documents are subject to the examination and audit of the State Auditor, at the request of the Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Contract.

The Agency reserves the right to audit the Contractor's books, records, and documents related to the Contractor's performance and the Contractor's compliance with all of the terms and conditions of this Contract at any time. Upon request by Agency, Contractor shall prepare and submit to Agency any reports concerning Contractor's performance of the services rendered under this Contract. With 72 hours advance written notice delivered to Contractor, Agency shall have access to the books, records and documents of Contractor related to Contractor's performance of this Contract in the event any audit is requested.

All drawings, documents, and other materials prepared by Contractor in the performance of this Contract:

- a) Shall be the property of Agency and shall be delivered at no cost to Agency upon request of Agency or upon the termination of this Contract, and
- b) Are confidential and shall not be made available to any individual or entity without prior written approval of the Agency.

2-11 INSPECTION. *DELETE in its entirety and SUBSTITUTE with the following:*

Inspection of the Work will be conducted by an Agency Representative and will include monitoring and enforcing compliance of materials, equipment, installations, workmanship, methods and requirements of the Contract Documents.

The Agency Representative shall, at all times, have safe access to the Work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials and equipment used and employed in the Work.

Whenever the Contractor varies the work hours in which inspection is required, the Contractor shall give at least two (2) Working Days written notice to the Agency Representative so that inspection may be made.

All installations which are to be backfilled or otherwise covered will be inspected by the Agency Representative prior to backfilling or covering. The Contractor shall give the Agency Representative a minimum of two (2) days advance notice prior to backfilling or covering any part of the Work.

Work or materials concealed or performed without the prior notice specified above, will be subject to such tests or exposure as may be necessary to prove to the satisfaction of the Engineer, that all materials used and the work done are in strict conformity with the Contract Documents. All labor and equipment necessary for exposing and testing shall be furnished and paid for by the Contractor. The Contractor shall replace, without additional cost to the Agency, any materials or work damaged by exposure or testing.

Defective work shall be made good at the Contractor's expense including any unsuitable materials and equipment that may have been previously inspected by the Agency Representative, and/or that payment therefore has been included in an estimate for payment.

Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all requirements of the Contract.

All submittals and correspondence between the Agency and the Contractor, related to inspection of the Work of this Contract, shall be directed to the Engineer.

The Contractor shall prove, to the satisfaction of the City Representative, that notification to the residents, the posting of signs at the affected locations, the installation of traffic control, demo, excavation, compaction, placement of PCC, curing of the newly placed PCC, the placement of asphalt concrete, the removal of traffic control, and all other work items meets the contract requirements.

The Contractor shall provide, to the satisfaction of the City Representative, tracking records for the delivery of materials, samples and tests for quality compliance, records for the weighing procedure, usage quantities of aggregate and emulsified asphalt, the mixing proportion, and the spreading thickness of each load.

At 11 a.m. on every day that work is being performed, the Contractor shall meet with the City Representative to confirm and approve the location and time of the last load of the day.

ADD:

2-11.1 Inspection Requirements. The Contractor shall notify the Agency Representative a minimum of 48 hours before inspection is required.

- a) Unless specified elsewhere in the Special Provisions, inspection of the Work will be provided by the Agency between the hours of 7:00 a.m. and 3:30 p.m., Monday through Friday, exclusive of Agency holidays. Any inspections requested by or made necessary as a result of the actions of the Contractor beyond the hours stated above shall be paid for by the Contractor at the prevailing rate of 1-1/2 times the regular hourly wage rate, plus 21% for overhead costs.

The Contractor shall submit a request to the Engineer for approval, a minimum five (5) Calendar Days, in advance of inspections requested by or made necessary as a result of the actions of the Contractor on Saturdays, Sundays or Agency and/or Federal holidays. The Contractor shall pay for these inspections at the prevailing rate of 1-1/2 times for Saturdays and 2 times the regular hourly wage rate for Sundays or Agency and/or Federal holidays plus associated overhead costs.

For purposes of this section, the following holidays are observed by the Agency:

- New Year's Day
- Martin Luther King Jr. Day
- Presidents' Day
- Memorial Day
- Independence Day
- Labor Day
- Veterans Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Eve
- Christmas Day

A construction calendar showing the days that each of the above holidays will be observed is available upon request from the Engineer.

- b) The Contractor shall telephone the designated Agency Representative at least two (2) Working Days prior to starting construction or resuming construction following suspension of the Work for any reason.

Prior to commencing any work on the Contract, the Contractor shall submit a completed Inspection Overtime Permit form provided by the City of Irvine.

- c) In addition to any inspection required by Codes and/or Ordinances or Contract Documents, Contractor shall notify the Engineer a minimum of 2 days prior to the permanent concealment of any materials or work. The following list is typical but not all inclusive of such required inspections:
 - 1) Foundation/subgrade material, footing and slab beds
 - 2) Reinforcing for concrete, masonry and plaster
 - 3) Contact surface of concrete forms
 - 4) Concrete and masonry surfaces
 - 5) Piping and conduit
 - 6) Finish grade prior to paving, seeding or planting
 - 7) All soil mixes prior to installation
 - 8) All chemicals and amendments prior to installation or application

2-12 SPECIAL NOTICES. *MODIFY to ADD the following:*

Any notice required or given by one party to the other under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notices shall not be effective for any purpose whatsoever, unless served in the following manner:

- a) If the notice is given to the Agency, by personal delivery or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to the Agency, postage prepaid and registered.
- b) If the notice is given by the Engineer to the Contractor by personal delivery to said Contractor or to his authorized representative or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to said Contractor at his regular place of business or such other address as may have been established for the conduct of the work under this Contract, postage prepaid and registered.
- c) If notice is given to the surety or any other person by personal delivery to said surety or other person, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to such surety or person at the address of said surety or person last communicated by him to the party giving the notice, postage prepaid and registered.

ADD:

2-13 CORRESPONDENCE. Unless specified otherwise or requested by the Engineer, the use of facsimile (fax) machines or internet email for the transmittal of routine correspondence, including submittals, shall not be allowed. The City will allow the use of fax machines or internet email for urgent matters such as notification of change of conditions. Unless otherwise allowed by the Engineer, all faxes or internet email shall be directed to the Engineer. The fax number and internet email address for the

Engineer will be provided at the pre-construction meeting. Faxes or internet email received after 2:00 p.m. shall be considered as being received the following working day. All faxes or internet email shall be followed up with a paper copy that is mailed to the Engineer on the same day the fax or internet email is forwarded. The Engineer will not accept any illegible faxed or internet email correspondence.

ADD:

2-14 CONTRACT COORDINATION. The Contractor shall coordinate scheduling, submittals, and the Work to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.

In addition to weekly progress meetings, as required by the Agency, the Contractor shall hold coordination meetings and pre-installation conferences with Agency Representatives and subcontractors to assure coordination of Work.

Should the Agency exercise partial Acceptance or beneficial occupancy of premises, the Contractor shall coordinate access to site to complete work or to correct defective work and work not in strict conformance with Contract Documents to minimize disruption of Agency's activities.

SECTION 3 - CHANGES IN WORK

REVISE as follows:

3-1 CHANGES REQUESTED BY THE CONTRACTOR.

3-1.1 General. *ADD the following after the 1st paragraph:*

The Contractor may initiate changes by submitting a written Change Order Request to the Engineer containing:

- a) Description of the proposed changes.
- b) Statement of the reason for making the changes.
- c) Reference applicable specifications sections and specific plans in support of the request.
- d) Statement of the effect on the Contract Price and Contract time.
- e) Statement of the effect on the work of separate subcontractors.
- f) Documentation supporting any change in Contract Price or Contract time as appropriate.

3-2 CHANGES INITIATED BY THE AGENCY.

3-2.1 General. *DELETE in its entirety and SUBSTITUTE with the following:*

The Agency may issue a Change Order for modifications of Work including, but not limited to, the Plans, Specifications, character, quantity or time of Work. Change Orders shall be in writing and state the dollar value of the change or establish the method of payment, and any adjustment in the Contract time of completion.

The Agency Representative may order minor changes in the Work not involving an increase or decrease in the contract amount, nor involving a change in the time for completion but consistent with the purposes for which the works are being constructed. If the Contractor believes that any order for minor changes in the work involves changes in the Contract Price or time of completion, the Contractor shall not proceed with the minor changes so ordered and shall immediately, upon the receipt of such order, notify the Engineer in writing of his estimate of the changes in the Contract Price and time of completion he believes to be appropriate.

No payment for changes in the Work will be made and no change in the time of completion by reasons of changes in the Work will be made, unless the changes are covered by a written Change Order approved by the Agency in advance of the Contractor's proceeding with the changed work.

Once a Change Order is finalized and executed by both parties, the Contractor waives its right to seek any additional compensation for the work covered by the Change Order or any project impacts. The Contractor agrees that all Change Orders constitutes full payment for the work covered by the Change Orders, including all direct and indirect overhead expenses.

Notwithstanding any other provision in the Contract Documents, the Agency's issuance of a Change Order shall not constitute a waiver by the Agency of, or preclude the Agency in any way from, asserting any claim with respect to the same, including but not limited to, a

claim of breach of contract or claim that the issued Change Order covers work included in the scope of Work set forth in the Contract Documents for which the Contractor was not entitled to any additional funds.

A Change Order is approved when the Agency signs the Change Order.

A Contract Change Order approved by the Engineer may be issued to the Contractor at any time. Should the Contractor disagree with any terms or conditions set forth in an approved Contract Change Order not executed by the Contractor, the Contractor shall proceed with the Change Order work in accordance with 3-5 of the Standard Specifications, and submit a written protest to the Engineer within fifteen (15) days after the receipt of the approved Contract Change Order. The protest shall state the points of disagreement citing the Specification references, quantities and costs involved. If a written protest is not submitted, payment will be made as set forth in the approved Contract Change Order, and that payment shall constitute full compensation for all work included therein or required thereby. Unprotested approved Contract Change Orders will be considered as executed Contract Change Orders.

The Engineer may initiate changes by submitting a Request for Quotation to Contractor. Such request will include detailed description of the change, products, and location of the change in the Work, supplementary or revised Plans and Specifications. Such request is for information only and is not an instruction to execute the changes, or to stop work in progress.

The Contractor shall support each quotation for a lump-sum proposal, and for each unit price that has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.

On request, the Contractor shall provide additional data to support time and cost computations, labor required, equipment required, products required, recommended source of purchase and unit cost, and quantities required, taxes, insurance and credit for work deleted from Contract, similarly documented, justification for any change in Contract time.

The Contractor shall support each claim for additional costs, and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information as follows:

- a) Name of the Agency Representative who ordered the work, and date of the order.
- b) Dates and times work was performed, and by whom.
- c) Time record, summary of hours worked, and hourly rates paid.
- d) Receipts and invoices for equipment used, listing dates and times of use, products used, listing of quantities, and subcontracts.

In lieu of a Request for Quotation, the Engineer may issue a written Field Order for the Contractor to proceed with a change for subsequent inclusion in a Contract Change Order. Field Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Price and any change in Contract time. Agency Representative will sign and date the Field Order as authorization for the Contractor to proceed with the changes. Contractor may sign and date the Field

Order to indicate agreement with the terms therein. Contractor shall proceed with the work so ordered prior to actual receipt of an approved Contract Change Order.

3-2.2 Contract Unit Prices.

3-2.2.1 General. *ADD the following after the 2nd paragraph:*

In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change, which together with all previous changes to that item, is not in excess of twenty-five percent of the total cost of such item based on the original quantity and Contract Unit Price.

3-2.2.2 Increases of More than 25 Percent. *After the last paragraph, ADD the following:*

In no case shall payment for the quantity in excess of 125 percent of the Bid Quantity exceed the Contract Unit Price per the Contractor's Bid Proposal, unless otherwise authorized by the Engineer.

3-2.4 Agreed Prices. *ADD the following after the 1st sentence:*

Agreed prices shall be negotiated before commencement of the changed work.

3-3 EXTRA WORK.

3-3.2.1 General. *DELETE in its entirety and SUBSTITUTE with the following:*

When the price for the extra work cannot be agreed upon prior to the commencement of the work, the Agency will pay for the extra work based on the accumulation of costs as provided herein.

3-3.2.2.3 Tool and Equipment Rental. *DELETE in its entirety 2nd paragraph and SUBSTITUTE with the following:*

The rates to be used for determining equipment rental costs shall be those rates listed for such equipment in the State of California, Department of Transportation (Caltrans) publication entitled "Equipment Rental Rates and Labor Surcharge", which is in effect on the date upon which the work is accomplished, regardless of ownership and any rental or other agreement entered into by the Contractor, if such may exist, for the use of such equipment. If it is deemed necessary by the Engineer to use equipment not listed in the said publication, the Engineer will establish a suitable rental rate for such equipment. The Contractor may furnish any cost data, which might assist the Engineer in the establishment of such rental rate. Equipment Rental Rates and Labor Surcharge publication is available from Caltrans at <http://www.dot.ca.gov/hq/construc/equipmnt.html>. Rental time will not be allowed while equipment is inoperative due to breakdowns.

Operators of rented equipment will be paid for as provided in 3-3.

3-3.2.3 Markup.

3-3.2.3.1 Work by Contractor. *DELETE in its entirety and SUBSTITUTE with the following:*

The following percentages will be added to the Contractor's costs as determined under 3-3.2.2 and shall constitute the markup for all overhead, increase in Contractor's bonds, administrative expenses and profit on work by the Contractor:

- | | |
|----------|-----|
| a) Labor | 20% |
|----------|-----|

- | | |
|---------------------------------|-----|
| b) Materials | 15% |
| c) Equipment Rental | 15% |
| d) Other Items and Expenditures | 15% |

3-3.2.3.2 Work by Subcontractor. *DELETE in its entirety and SUBSTITUTE with the following:*

When any part of the extra work is performed by a subcontractor, of any tier, the markup established in 3-3.2.3.1 shall be applied to the subcontractor's actual cost of such work. Contractor markup on subcontractor work shall be limited to five percent.

No payment shall be made for any item not set forth in 3-3.2.3.1 and 3-3.2.3.2, including without limitation, Contractor's overhead, general administrative expense, supervision or damages claimed for delay in prosecuting the remainder of the work.

This provision shall not be construed to preclude the recovery of damages by the Contractor stemming from delay for which the Agency is responsible, which is unreasonable under the circumstances involved, and which was not within the contemplation of the Agency and the Contractor.

3-3.3 Daily Reports by Contractor. *ADD the following after the 1st sentence:*

The Contractor shall notify the Agency Representative at the beginning of each day when extra work is in progress. No payment will be made for work not verified by the Agency Representative.

SECTION 4 - CONTROL OF MATERIALS

REVISE as follows:

4-1 MATERIALS AND WORKMANSHIP.

4-1.1 General. *ADD the following before the 1st sentence in the 1st paragraph:*
The Contractor shall furnish all materials required to complete the Work, except materials that are designated in the Special Provision to be furnished by the Agency.

ADD:

4-1.1.1 Contractor Equipment and Plants. Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the project. Such equipment and plants shall be maintained in a good state of repair during the process of the Work. No obsolete or badly worn equipment and plants shall be used. Manufacturer's ratings shall not be exceeded.

Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity to ensure a production rate of sufficient material to carry to completion within the time limit(s) specified in the Contract Documents, if any.

The Contractor, when ordered by the Engineer, shall remove unsuitable equipment from the work site and discontinue the operation of unsatisfactory plants and equipment.

ADD:

4-1.1.2 Adoption or Revision Date for Standards, Codes, and Tests. Whenever reference is made to a standard, code, specification, or test and the designation representing the date of adoption or latest revision thereof is omitted, it shall mean the latest revision of such standard, code; specification or test in effect on the day of the Notice Inviting Bids is dated.

In accordance with the Public Contract Code § 3400, the Contractor shall submit data substantiating requests for substitution of "equal" items within thirty-five (35) days of Contract award or before ten percent (10%) of the Contract Working Days have expired, whichever is less. This time is included in the number of Working Days allowed for the completion of the Work. The Engineer's decision regarding the acceptability of the substitution is final.

Materials, equipment, and supplies provided shall, without additional charge to Agency, fully conform with all applicable local, State and Federal safety laws, rules and regulations, and orders, and it shall be the Contractor's responsibility to provide only such materials, equipment, and supplies notwithstanding any omission in the Contract Documents therefore on that particular material, equipment or supply as specified.

4-1.2 Protection of Work and Materials. *After the last paragraph, ADD the following:*

All materials for use in the Work shall be stored by the Contractor in such a manner as to prevent damage from exposure to the elements, admixture of foreign materials, or from any other cause. The Contractor shall be entirely responsible for damage or loss by weather or other causes. The Agency Representative reserves the right to approve the

storage location and area size.

Before acceptance of the work and final payment, the Contractor shall clean all project sites, the stockpile site, and all grounds occupied by him in connection with the project. The Contractor shall remove all rubbish, debris, excess materials, temporary structures, and equipment. All parts of the sites and grounds shall be left in a neat and orderly condition.

Full compensation for protection of work and materials and proper maintenance of all stockpile and work sites shall be considered as part of other items of work and no additional compensation will be allowed therefore.

4-1.3 Inspection Requirements. *Before the 1st paragraph, ADD the following:*

Materials to be used in the Work will be subject to inspection and tests by the Agency Representative or his designated representative. The Contractor shall furnish without charge such samples as may be required. The Contractor shall furnish the Agency Representative a list of his sources of materials and the locations at which such materials will be available for inspection. The list shall be furnished to the Agency Representative in sufficient time to permit inspection and testing of materials to be furnished from such listed sources in advance of their use. The Agency Representative may inspect, sample or test materials at the source of supply or other locations, but such inspection, sampling or testing will not be undertaken until the Agency Representative is assured by the Contractor of the cooperation and assistance of both the Contractor and the supplier of the material. The Contractor shall assure that the Agency Representative or his authorized representative has free access at all times to the material to be inspected, sampled or tested. It is understood that such inspections and tests, if made at any point other than the point of incorporation in the Work, in no way shall be considered as a guarantee of acceptance of such material nor of continued acceptance of material presumed to be similar to that upon which inspections and tests have been made, and that inspection and testing performed by the Agency shall not relieve the Contractor or his suppliers of responsibility for quality control.

Manufacturers' warranties, guarantees, instruction sheets and parts lists, which are furnished with certain articles or materials incorporated in the Work, shall be delivered to the Agency Representative before acceptance of the Contract Work.

Reports and records of inspections made and tests performed when available at the site of the Work, may be examined by the Contractor.

4-1.3.1 General. *MODIFY to ADD the following:*

The Engineer may inspect the production of material, or the manufacture of products at the source of supply. Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished free of charge to make the necessary inspection. The Agency assumes no obligation to inspect materials at the source of supply.

4-1.4 Test of Materials. *MODIFY to ADD the following:*

The Contractor shall furnish the Agency Representative with a list of his sources of

materials in sufficient time to permit proper inspection and testing of materials to be furnished for such listed sources in advance of their use. The Contractor shall furnish without charge such samples as may be required.

Inspection and tests will be made by the Agency Representative or his designated representative, but it is understood that such inspections and tests, if made at any point other than the point of incorporation in the work, in no way shall be considered as guarantee of acceptance of such materials nor of continued acceptance of materials, presumed to be similar to that upon which inspection and tests have been made.

Tests of materials will be made in accordance with commonly recognized procedures of technical organizations and such special procedures as prescribed in the Contract Documents. Materials shall be sampled and tested at such times during the process of the Work as deemed desirable by the Agency Representative and the Contractor shall cooperate in obtaining the samples.

ADD:

4-1.4.1 Testing Laboratory. The Contractor shall employ and pay for services of an independent testing laboratory, subject to approval by the Agency, to perform other testing and inspections services required by the Contract Documents.

Prior to start of Work, the Contractor shall submit his testing laboratory name, address and telephone number, and names of full-time registered engineer and responsible officer.

Employment of testing laboratories will in no way relieve Contractor of its obligation to perform the Work in accordance with Contract Documents.

Laboratory field technicians employed by the Agency shall have no authority to release, revoke, alter, or enlarge on requirements of Contract Documents, or to approve, accept or stop any portion of the Work.

The Contractor shall:

- a) Cooperate with laboratory personnel, provide access to work, arrange access to manufacturer's operations.
- b) Provide the laboratory with preliminary representative samples of materials to be tested, in required quantities.
- c) Furnish copies of mill test reports.
- d) Provide casual labor and facilities for access to work being tested; obtain and handle samples at the site; facilitate inspections and tests; provide facilities for the laboratory's exclusive use for storage and curing of test samples.
- e) Coordinate requests for testing through the Agency Representative. Notify Agency Representative a minimum of three (3) Working Days in advance of operations to allow for assignment of personnel and scheduling of tests.
- f) Pay for additional laboratory inspections, sampling and testing required for Contractor's convenience and when initial tests indicate that work does not comply with Contract Documents.

- g) When required by the Contract Documents, submit manufacturer's certificate, executed by responsible officer, certifying that the product(s) meet or exceed specified requirements. Provide certification in duplicate.

4-1.5 Certificate of Compliance. *Delete in its entirety and SUBSTITUTE with the following:*

A certificate of compliance shall be furnished prior to the use of any materials for which the Specifications require that such a certificate be furnished. In addition, when so authorized in the Specifications, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a certificate of compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Contract Documents. A certificate of compliance shall be furnished with each lot of material delivered to the Work, and the lot so certified shall be clearly identified in the certificate.

All materials used based on a certificate of compliance may be sampled and tested at any time. The fact that material is used on the basis of a certificate of compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Plans and Specifications, and any such material not conforming to such requirements will be subject to rejection whether in place or not.

The Agency reserves the right to refuse to permit the use of material based on a certificate of compliance.

The form of the certificate of compliance and its disposition shall be as approved by the Engineer.

4-1.6 Trade Names or Equals. *MODIFY to ADD the following:*

The Contractor shall submit products list in accordance with the following:

- a) Within the time specified in 4-1.1.2 of the Standard Specifications and these Special Provisions, transmit number of copies Contractor needs plus four (4) of a list of major products which are proposed for installation, including name of manufacturer. Tabulate products by specification section number, title and article number.
- b) For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- c) Agency Representative will reply in writing within ten (10) days of receipt of the list, stating whether there is reasonable objection to listed items. Failure to object to a listed item shall not constitute a waiver of requirements of Contract Documents

The following limitations shall apply to substitutions:

- a) During the bidding period, Instructions to Bidders govern times for submitting requests for substitutions under requirements specified in this Subsection.
- b) Requests for substitutions of products will be considered only within the time period specified in the Contract Documents. Subsequent requests will be considered only in the case of product unavailability or other conditions beyond control of Contractor. Material delivery schedules will not be considered justification for substitution.

- c) Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request or when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.
- d) Substitute products shall not be ordered or installed without written acceptance by the Engineer.
- e) Only one request for substitution for each product line will be considered. When substitution is not accepted, provide specified product.
- f) The Engineer will determine acceptability of substitutions.

Requests for substitutions shall conform to the following:

- a) Submit separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents.
- b) Identify product by specifications section and article numbers. Provide manufacturer's name and address, trade name or product, and model or catalog number. List fabricators and suppliers, as appropriate.
- c) Give itemized comparison of proposed substitution with specified product, listing variations, and reference to specifications section and article numbers.
- d) Give cost data comparing proposed substitution with specified product, and amount of net change to Contract sum.
- e) List availability of maintenance services and replacement materials.
- f) State effect of substitution on construction schedule, and changes required in other work or products.

Request for substitution constitutes a representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product. The Contractor shall provide the same warranty for the substitution as for the specified product, shall coordinate installation of accepted substitute, making such changes as may be requested for Work to be complete in all respects, certifies that cost data presented is complete and includes all related costs under this Contract and waives claims for additional costs related to substitution which may later become apparent. The Contractor shall submit the number of copies the Contractor needs plus four of request for substitution. For accepted products, submit shop drawings, product data and samples, and tests conducted in accordance with 2-5.3.

ADD:

4-1.10 Agency-Furnished Materials. Materials which are listed as Agency-furnished materials in the Special Provisions will be available to the Contractor free of charge.

The Contractor shall submit a written request to the Agency Representative for the delivery of Agency-furnished material at least fifteen (15) Working Days in advance of the date of its intended use. The request shall state the quantity and the type of each material.

The locations at which Agency-furnished materials will be available to the Contractor free of charge will be designated in the Special Provisions. In those cases, the materials

shall be hauled to the site of the Work by the Contractor at the Contractor's expense, including any necessary loading and unloading that may be involved. If the locations are not designated in the Special Provisions, the Agency-furnished materials will be furnished to the Contractor free of charge at the site of the Work. In either case, all costs of handling and placing Agency-furnished material shall be considered as included in the price paid for the contract item involving the Agency-furnished material.

The Contractor shall be responsible for Agency-furnished materials furnished to the Contractor, and shall pay all demurrage and storage charges. Agency-furnished materials, once furnished, delivered, or picked-up by the Contractor, that are lost or damaged from any cause whatsoever shall be replaced by the Contractor at the Contractor's expense. The Contractor shall be liable to the Agency for the cost of replacing Agency-furnished materials, and those costs may be deducted from any monies due or to become due the Contractor. All Agency-furnished material that is not used on the Work shall remain the property of the Agency, and the Contractor shall arrange with the Agency Representative for delivery back to the Agency at Contractor's expense.

SECTION 5 - UTILITIES

REVISE as follows:

ADD:

5-0 GENERAL. For purposes of this Section 5, the terms referenced below are defined as follows:

An “unidentified” underground main or trunk line utility is one that is not indicated at all on the Plans, and a “misidentified” underground main or trunk line utility is one that is not indicated on the Plans with reasonable accuracy (a “misidentification”). An underground main or trunk line utility is indicated on the Plans with reasonable accuracy unless its actual location is substantially and materially different from that indicated on the Plans.

The term “rearrangement” of utilities means the relocation, alteration, reinstallation, and/or reconstruction of utilities (including removal of existing utilities incidental thereto) as necessary in order to accommodate the Work. Whenever in this Section 5 reference is made to any one or more of these rearrangement activities, such reference shall be deemed to include all other such activities as required in order to accommodate the Work.

5-1 LOCATION. *DELETE in its entirety and SUBSTITUTE with the following:*

A list of utility companies that have facilities located within or near the construction area is included in the Special Provisions. The Engineer has endeavored to determine the existence of utility substructures at the site of the Work by reviewing the records of the owners of known utilities in that vicinity and consulting with those owners, and based on that information has indicated on the Plans those utility substructures (except for service connections) that may affect the Work.

The Contractor acknowledges that the utility information provided on the Plans and Special Provisions has not been verified and may not be accurate or complete. Except as expressly provided in this Section 5, the Contractor may not rely upon such utility information and the City assumes no responsibility for its accuracy or completeness. Changed conditions within the scope of Section 3-4 do not include utilities.

The Contractor shall determine the exact location (both horizontal and vertical), type and size of all existing utilities, including service connections, prior to commencing work which could result in damage to such utilities or could otherwise affect or be affected by such utilities or interfere with the service they provide. Where underground main distribution conduits such as water, gas, sewer, electric power, telephone or cable television are shown on the Plans, the Contractor shall assume that every adjacent property parcel will be served by a service connection for each type of utility shown. The Contractor shall do such investigation, research, surveys and potholing as the Contractor deems necessary to make such determinations. The Contractor shall immediately notify the Engineer as to any utility discovered by it which is in a different position than indicated on the Plans or is not indicated at all on the Plans.

The Contractor's cost of locating any unidentified or misidentified underground main or trunk line utility will be paid for as an addition to the Work in accordance with Section 3; provided, however, that the Contractor will not be entitled to such additional compensation if the existence and location (with reasonable accuracy) of such utility was (or should have

been) known to the Contractor as of the date on which the Bids were due or could otherwise have been inferred at that time from the presence of visible facilities such as buildings, meters, junction boxes or identifying markers. The cost of locating all other utilities shall be considered as included in prices in the Bid for other items of the Work.

The information regarding underground and internal utilities and appurtenances which the Contractor is required to record in the Record Documents as specified in Section 7-16 shall include (but not be limited to) the accurate locations of underground utilities determined pursuant to this Section 5-1 and remaining in place, as well as utilities rearranged by either the Contractor or the utility owners.

At least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California at 1-800-422-4133) to obtain an inquiry identification number. The Contractor shall comply in all respects with California Government Code § 4216 *et seq.* of the.

Caltrans is not required by Section 4216 *et seq.* to become a member of the regional notification center. The Contractor shall contact Caltrans for the location of its subsurface installations. In addition, the Contractor shall be aware that non-pressurized sewer lines, non-pressurized storm drains, and other non-pressurized drain lines are not required by § 4216 *et seq.* to be marked by the respective owners. The Contractor shall contact those utility owners as necessary to locate their subsurface installations.

The Contractor shall request the City of Irvine Traffic Operations Division at (949) 724-7649 to locate any existing traffic signal conductors and interconnect within the construction area before performing Work that may affect or be affected by the existing facilities.

Except as expressly provided in this Section 5 with respect to unidentified or misidentified underground main or trunk line utilities, the failure of any utility company to accurately mark its facilities shall not be justification for a time extension or for additional compensation from the City.

The Contractor shall obtain photographs of all markings made by its forces as well as all USA Alerts markings. All such photographs shall show the subject markings in relation to one or more identifiable landmarks that will remain in place after completion of the Work and completion of any utility removal and/or rearrangement work in the vicinity.

The right is reserved to governmental agencies and to the owner of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of maintaining and making repairs to their property.

5-1.2 Payment. *DELETE in its entirety and SUBSTITUTE with the following:*

Payment for utility location by the Contractor shall be included in the various items of work and no additional compensation will be allowed therefor.

5-2 PROTECTION. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the utility owner or direction from the Engineer. Valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities potentially impacted by the Work, the Contractor shall, unless otherwise specified on the Plans or in the Special Provisions, furnish and place the necessary protection and support.

Any additional cost incurred by the Contractor for protecting and supporting an unidentified underground main or trunk line utility or resulting from the misidentification of an underground main or trunk line utility will be paid for as an addition to the Work in accordance with Section 3, unless such utility's existence and location (with reasonable accuracy) was (or should have been) known to the Contractor as of the date on which the Bids were due or could otherwise have been inferred at that time from the presence of visible facilities such as buildings, meters, junction boxes or identifying markers. The cost of protecting and supporting all other utilities shall be considered as included in prices in the Bid for other items of the Work.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged in the course of the Work. The Contractor shall, if directed by the Engineer, restore, repair or replace any such disturbed or damaged utility.

For any unidentified or misidentified underground main or trunk line utility that is disturbed or damaged in the course of the Work, the cost of restoration, repair or replacement incurred by the Contractor, if not made necessary by the Contractor's failure to perform its obligations pursuant to the Contract Documents (including without limitation Section 5-1) or to otherwise exercise reasonable care, will be paid for as an addition to the Work in accordance with Section 3. Except where additional compensation is allowed pursuant to this paragraph, all utilities disturbed or damaged in the course of the Work shall be restored, repaired or replaced at the Contractor's cost and expense, either by the utility owner or by the Contractor.

To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any claims or liabilities (as defined therein) that may be asserted or claimed by any person or entity arising out of any disturbance or damage to utilities caused by the act or omission of the Contractor, whether or not such utilities are accurately marked either on the Plans or by the utility owner in the field, and whether or not there is concurrent active or passive negligence on the part of City and/or City Personnel, but excluding any such claims or liabilities arising from the sole active negligence or willful misconduct of City or City Personnel. All claims and liabilities for which the Contractor is responsible pursuant to this paragraph are sometimes referred to herein as "Utility Damage Claims."

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

- a) Furnish and install a 2-inch (50 mm) cushion of expansion joint material or other similar resilient material; or
- b) Provide a sleeve or other opening which will result in a 2-inch (50 mm) minimum-clear annular space between the concrete and the utility; or
- c) Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for a structure which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other

cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer, shall arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system, and shall implement such procedures at the Contractor's expense.

5-4 RELOCATION. *DELETE in their entirety 2nd and 3^d paragraphs and SUBSTITUTE with the following:*

If utilities are found to interfere with the Work after award of the Contract, such utilities will be rearranged by the respective utility owners, or the Engineer may order the Contractor to perform such rearrangement, as an addition to the Work in accordance with Section 3. Alternatively, the Engineer may order changes in the Work to avoid such interference, in accordance with Section 3. All work by the Contractor on utilities shall be done to the reasonable satisfaction of the utility owner as well as complying with the requirements of the Contract Documents.

When the Plans or Special Provisions provide for the Contractor to rearrange a utility as part of the Work, all costs for such work shall be considered included in the Bid for the items of work necessitating such work. However, if an underground main or trunk line utility to be rearranged by the Contractor is misidentified in the Plans, any additional cost incurred by the Contractor for such work resulting from the misidentification shall be treated as an addition to the Work in accordance with Section 3, unless the utility's location (with reasonable accuracy) was (or should have been) known to the Contractor as of the date on which the Bids were due or could otherwise have been inferred at that time from the presence of visible facilities such as buildings, meters, junction boxes or identifying markers. Except as provided in this paragraph, the Contractor shall not be entitled to any additional compensation on account of inaccuracies in the Plans with respect to rearrangements of utilities that are included in the Work.

Temporary or permanent rearrangement of utilities requested by the Contractor for its convenience shall be its responsibility and the Contractor shall make all arrangements necessary for such work and bear all related costs. The Contractor shall not be entitled to any additional compensation on account of any such utilities or work.

ADD the following at the beginning of the last paragraph:

The provisions of this paragraph are subject to the provisions of the previous paragraph. Where the Plans or Special Provisions provide for the Contractor to rearrange any service connections, such work is considered included in the Bid for the items of work necessitating such work.

5-5 DELAYS. *DELETE in its entirety and SUBSTITUTE with the following:*

The construction schedule developed in accordance with 6-1 shall allow adequate time for the necessary protection, removal and rearrangement of utilities by either the utility owner or the Contractor, as applicable. For work to be performed by a utility owner, the construction schedule shall allow for the time period required by the utility owner for such work. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or rearrangement of utilities, and shall obtain the Engineer's approval of such changes.

The Contractor will not be entitled to any extensions of the Contract time or compensation for damages incurred due to delays attributable to utilities at the site of the Work except as

otherwise provided in 6-6.1 or as provided below. Delays described below will not be considered delays for which the City is responsible within the meaning of 6-6.3.

- a) Subject to 6-6.2 and 6-6.4, the Contractor shall be entitled to an extension of the Contract time to the extent that any delay in the Work is directly attributable to an unidentified underground main or trunk line utility or the misidentification of an underground main or trunk line utility in the Plans, unless the utility's location (with reasonable accuracy) was (or should have been) known to the Contractor as of the date on which the Bids were due or could otherwise have been inferred at that time from the presence of visible facilities such as buildings, meters, junction boxes or identifying markers. If the Contractor is entitled to such a time extension, the Contractor also shall be entitled to compensation for idle time of equipment on account of such delay, determined by the Engineer in the same manner as determinations are made for equipment used in the performance of Extra Work in accordance with Section 3. The Contractor shall not be entitled to any other compensation or damages on account of such delay.
- b) The Contractor may be given an extension of time (but no additional compensation) for unforeseen delays attributable to failure of a utility owner to complete utility rearrangement work within the time period reasonably scheduled for such work in the construction schedule, or to timely complete utility rearrangement work which the Contract Documents indicate will be completed in advance of the Contractor's construction operations.

The Contractor shall not be entitled to any time extension or additional compensation for any delays or losses described in 5-5: (a) to the extent resulting from the Contractor's actions or omissions or which could have been avoided by any reasonable means, such as the judicious handling of forces, equipment or plant, or (b) arising in connection with utilities being rearranged for the Contractor's convenience. The determination of what damages the Contractor could have avoided will be made by the Engineer.

The Contractor shall immediately notify the Engineer of any delays to the Contractor's operations described in 5-5. Delays described in 5-5 are not considered right of way delays within the scope of 2-8.

ADD:

5-7 CONTRACTOR RESPONSIBILITIES.

The Contractor shall:

- a) Cooperate with utility personnel; provide access to work site.
- b) Coordinate Work of the Contract with affected utilities. All USA markings shall be removed after completion of the work for which the markings were provided, and before Agency's Acceptance and/or approval of the Work.
- c) Asphalt concrete pavement not overlaid or slurry sealed as part of the project bid items which is damaged by trenching, potholing or where the contractor otherwise damages pavement shall be slurry sealed after the pavement section is repaired. "Perpendicular" street cuts shall be slurry sealed ten (10) feet each side of the cut and for "longitudinal" cuts shall be slurry sealed from pavement lane to pavement lane line for the entire damaged area or as directed by the Agency Representative. Type I slurry shall be used on non-arterial streets and

Type II slurry shall be used on arterial streets. Damaged traffic striping, legends and markers shall also be replaced if damaged. "Patchwork" application of slurry shall be avoided by joining closely grouped areas of slurry applications. Compensation for this requirement shall be considered as included in the prices paid for the related items of work and no additional compensation will be allowed therefor.

ADD:

5-8 PERMANENT UTILITIES. Contractor shall contact and make all arrangements with utility owners and coordinate all provisions for installation and connection of all permanent utilities that are necessary for the Work, such as, but not limited to, natural gas, electricity, water, sewer, and telephone. All costs for such installation and connection, as well as costs for operating permanent utilities prior to acceptance of the Work by the Agency, shall be considered as included in the prices in the Bid for the related items of work.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. *DELETE in its entirety and SUBSTITUTE with the following:*

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

6-1.1 Construction Schedule.

Within 10 working days after Notice of Award, the Contractor shall submit to the Engineer, for review and approval, the Construction Schedule for the entire project, in accordance with these Special Provisions. The Contractor shall correct any schedule deficiencies within 2 working days of the City's Deficiency Notice. All subcontractor work shall be incorporated in the Prime Contractor's schedule. Separate schedules will not be admitted.

Once the project commences, a weekly schedule for the streets to be slurry sealed and/or rehabilitated shall be submitted on the Monday of the week prior to the week of the scheduled work. All construction schedules shall be broken down in weekly intervals. All construction schedule submittals shall be in a tabulation form denoting clearly and accurately the scope of work with street limits for each day of the week. A map of the area where the work is taking place shall accompany each weekly schedule and it shall depict the daily work shown in the schedule.

The Contractor shall deliver to the Agency Representative a construction progress schedule employing the critical path method, in a form satisfactory to the Agency Representative, showing the proposed dates of commencement and completion of each item of the Work and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule.

The Contractor shall develop the Construction Schedule and shall prosecute the construction of the project in accordance with requirements of Section 6-1.3, Order of the Work, Project Zones and Scheduling Restrictions and all other applicable requirement of these Special Provisions, unless otherwise authorized by the Engineer. These requirements and restrictions shall be applicable to the baseline schedule approval and all subsequent schedule revisions as needed throughout the project.

When a change in the schedule occurs for any reason, the Contractor shall submit a revised construction schedule to the Engineer for review and approval within 3 Working Days. The Contractor shall only be allowed to work in areas identified in the most recent approved schedule. The full cost of this provision shall be considered as included in the cost for Mobilization and no additional compensation shall be allowed.

The schedule format shall be as follows:

- a) Prepare schedules as horizontal bar chart with separate bar for each portion of work or operation in accordance with approved schedule of values, identifying first workday of each week. Allow space for updating.
- b) Sequence of Listings: Chronological order of the start of each item of work.
- c) Sheet Size: Multiple of 8-1/2 x 11 inches.

The content of the schedules shall:

- a) Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction. Include any special sequencing specified in the Contract Documents.
- b) Provide sub-schedules to define major and significant portions of entire schedule.
- c) Show accumulated percentage of completion of each item, and total percentage of Work completed as of first day of each month.
- d) Provide separate schedule of dates for product procurement and delivery dates, shop drawing submittals and equipment installation. Show decision dates for selection of finishes, if applicable.
- e) Show delivery dates for Agency-furnished products, if applicable.
- f) Show the critical path.
- g) Identify Street Segments, Limits, and Estimated Quantity for Each Major Work Item shown in the Construction Schedule.

Revisions to schedules shall:

- a) Indicate progress of each activity to date of submittal, and projected completion date of each activity.
- b) Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
- c) Provide written report to define any problem areas, anticipated delays, and impact on schedule. Report corrective action taken, or proposed, and its effect.
- d) Revise periodically as directed by the Agency Representative. Failure to comply with directive will be considered as grounds to delay progress payment.
- e) Show the revised critical path.

Required submittals:

- a) Submit initial schedules within ten (10) days after execution of the Contract. If requested, resubmit required revisions within seven (7) days of request.
- b) Submit an update schedule on or before the first day of each month, beginning one month after the initial schedule as outlined in (a) above. If requested, resubmit required revisions within seven (7) days of request.
- c) Submit four (4) copies of schedules to Agency Representative.
- d) Submit under transmittal letter.

Contractor shall:

- a) Distribute copies of current schedules to job site file Subcontractors, suppliers and other concerned parties.
- b) Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

6-1.2 Commencement of the Work.

The Contract Time shall commence upon the project start date identified in the Notice to

Proceed issued to the Contractor. The Contractor shall not begin any construction on this project prior to this date, unless explicitly authorized by the Engineer. Work on non-construction items such as Traffic Control Plans, CMS signs placement, and Public Notification may begin before the date identified in the Notice to Proceed, if approved by the Engineer.

The Contractor shall begin the Work within 15 days of the date stipulated in the Notice to Proceed and shall diligently prosecute the Contract to completion within the time limit provided in the Contract. Failure to begin work on the project within 15 days after the Notice to Proceed date may be considered as grounds for termination of the contract due to contractor breach as described in Section 6-4, Termination for Breach.

Work shall not commence prior to approval of a Baseline Construction Schedule by the Engineer. The Contractor's failure to submit an acceptable Construction Schedule prior to the project start date identified in the Notice to Proceed shall not entitle him to an extension of time or additional working days.

The Contractor shall notify the Agency Representative of his intent to begin work at least two (2) working days prior to the start of any scheduled or rescheduled work.

6-1.3 Order of the Work, Project Zones and Scheduling Restrictions.

6-1.3.1 General.

The Contractor shall not become Engaged in simultaneous construction of Major Work Items in more than one Restricted Zones, as defined in this Section 6-1.3.

- (a) Contractor shall be considered as Engaged in a particular Project Zone once he has begun construction of a defined Major Work Item within that zone and shall continue to be considered Engaged until he is Disengaged from a Project Zone as defined in Section 6-1.3.1 Part (b) below.
- (b) Contractor shall be considered as Disengaged from a particular Project Zone upon completion of all planned work of a particular Major Work Item, provided that he is not still engaged due to other Major Work Items under construction within that zone.
- (c) Restricted Zones shall be considered Unrestricted for the remainder of the project upon completion of all planned work for all Major Work Items within the zone.

6-1.3.2 Project Zones.

<u>Project Zones (See Appendix B)</u>	<u>Status</u>
Zone 1 – Northwood (south of Irvine Blvd)	Restricted
Zone 2 – Northwood (north of Irvine Blvd)	Restricted

6-1.3.3 Major and Minor Work Items Defined.

Major Work Items

Any PCC Construction Items
Cold Milling for AC Repairs
AC Repairs Paving
Cold Milling for AC Overlay

AC Overlay Paving
Micro-Milling Prior to Slurry Seal
Slurry Sealing (any type)
Utility Adjustments (any type)
Major Deficiency noted during construction of that item
Any undefined activity requiring a lane closure

Minor Work Items

Water Pollution Control Work and BMPs
Public Notification
Surveying
Crack Sealing
Traffic Loop Installation
Traffic Striping, Markings and Markers
Street Sweeping
General Clean-up
Punchlist Items issued as part of final inspection
Any undefined activity not requiring a lane closure

6-1.3.4 Scheduling Restrictions and Construction Requirements.

The following scheduling restrictions and construction requirements shall apply to the Baseline Schedule, all revised schedules and for construction of the project throughout the duration of the contract, unless otherwise explicitly authorized by the Engineer.

- a) Working Hours shall be per Section 601-6.6, Working Hours and Lane Requirements.
- b) Contractor shall coordinate construction schedule with nearby schools for work within 500 feet of a school. The Contractor shall conduct his operation as to offer the least possible obstruction and inconvenience to school operations. This may include scheduling work when school is not in session or scheduling work to avoid morning student drop off time or afternoon student pickup time.
- c) Contractor shall complete all concrete work prior to AC paving operations. Contractor shall complete all AC paving operations prior to starting any Slurry Seal operations within a particular Zone.
- d) When spreading slurry seal or when paving asphalt concrete, the Contractor shall schedule all resurfacing work for any street segment in consecutive work days, including intersections and slurry seal "Windows". The Contractor shall not be allowed to spread slurry or pave half of a roadway without having scheduled the remaining portion of the roadway for the next work day.
- e) The Contractor shall not schedule work for more than one arterial street at the same time, without prior explicit approval from the City. The intent of this restriction is to prevent lane closures on multiple arterial streets in close proximity, which have the potential to cause excessive traffic congestion, as determined by the Engineer.
- f) The Contractor shall not schedule any work on residential streets on the same day as refuse collection, without prior approval by the Engineer. It shall be the sole

responsibility of the Contractor to research what days refuse collection occurs. The Contractor shall be responsible for coordinating with the refuse collection contractor and shall schedule accordingly.

- g) The construction schedule shall allow residents along the affected streets ample "on street" parking within 500 feet distance from their homes. For this purpose, adjacent streets shall not be scheduled for the same day, without explicit approval from the City.
- h) The Contractor shall not schedule more than 1,800 Tons of AC Overlay paving per work day, without prior approval by the Engineer.
- i) The contractor shall schedule to complete AC Overlay paving within the same work week (Monday through Friday) as the cold milling for each street segment. All exceptions must be approved by the Engineer.
- j) Other Scheduling Restrictions and Construction Requirements required by other sections of the Standard Specifications and the Special Provisions.

6-2 PROSECUTION OF THE WORK.

ADD:

6-2.1 Time of Completion and Forfeiture Due to Delay. The Contractor shall complete the Work called for under the Contract within the time set forth in the Special Provisions.

In accordance with Government Code § 53069.85, Contractor agrees to forfeit and pay to the Agency the amount per day set forth in the Contract for each and every day of delay which shall be deducted from any payments due or to become due the Contractor.

The Agency has endeavored to identify all areas of the site which may contain hazardous waste, as defined by Health and Safety Code § 25117, and unless otherwise noted said hazardous waste in these areas has been mitigated. However, the parties expressly acknowledge the possibility of the existence of further hazardous waste not previously identified. If, during the course of his work, the Contractor encounters any such hazardous waste, he shall promptly notify the Agency through its designated representative. If the material is indeed "hazardous waste" pursuant to Health and Safety Code § 25117, the Agency has the option to have the mitigation work performed by the Contractor or by a separate contract from the work being performed. If the Contractor performs said mitigation work, the cost will be paid for as an addition to the work in accordance with Section 3. To the maximum extent permitted by law, the Agency shall not be liable for any damages beyond an appropriate time extension for delays occasioned by the existence of hazardous waste conditions contemplated herein.

No forfeiture due to delay shall be made because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor (including but not restricted to acts of nature or of the public enemy, acts of the government, acts of the Agency, or acts of another contractor

in the performance of a contract with the Agency, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather). Any such delays, except for acts of the Agency, shall not entitle the Contractor to any additional compensation. The sole remedy of the Contractor shall be an extension of time obtained in accordance with this section.

The Contractor shall, within ten (10) Calendar Days from the beginning of any such delay, notify the Agency Representative in writing of the cause of delay, whereupon the Agency Representative will ascertain the facts and extent of the delay and extend the time for completing the Work if, in his judgment, the findings of the fact justify such an extension, and the Agency Representative's findings of facts thereon shall be final and conclusive.

6-3 SUSPENSION OF THE WORK.

6-3.1 General. *DELETE in its entirety and SUBSTITUTE with the following:*

The Engineer shall have the authority to suspend the Work wholly or in part, for any time period as the Engineer deems necessary in the interest of Agency, for Agency's convenience, or due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the Contract. The Contractor shall immediately comply with the written order of the Engineer to suspend the Work wholly or in part. The suspended work shall be resumed as ordered or approved in writing by the Engineer.

Resumption of work shall be predicated on receipt of the following from the Contractor:

- a) A revised schedule showing each task yet to be accomplished and the time line to accomplish each – until final completion.
- b) The work force projections attached to each task listed per workweek.
- c) The cost expenditures attached to each task summarized per each workweek.
- d) Lien releases from each subcontractor, supplier, and vendor to which the Contractor has requested materials, equipment or any other service recognizing the payments received.
- e) An Income and Expense Statement projecting how the Contractor will finance the remainder of the project.

Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3. For purposes of 6-6.3, delays resulting from suspensions ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the Contract, shall not be delays for which the Agency is responsible.

In the event that a suspension of Work is ordered as provided above, the Contractor, at the Contractor's expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of that suspension as provided in 7-10, and as specified in these Special Provisions. In the event that the Contractor fails to perform the work above specified, the Agency will perform that work and, if the suspension is due to Contractor's failure to carry out orders given or to perform any provision of the Contract, the cost thereof will be deducted from monies due or to become due the Contractor.

If a suspension of work is ordered by the Engineer, in accordance with this subsection, the days on which the suspension order is in effect shall be considered working days if those days are working days within the meaning of the definition set forth in 6-7.2.

The suspension of Work shall not relieve the Contractor of the responsibilities as set forth in the Contract Documents.

6-4 TERMINATION OF THE CONTRACT FOR DEFAULT. *ADD the following:*

In the event this Contract is terminated for grounds which are later determined not to justify a termination for breach, such termination shall be deemed to constitute a Termination of the Contract for Convenience pursuant to 6-5.

6-5 TERMINATION OF THE CONTRACT FOR CONVENIENCE. *DELETE in its entirety and SUBSTITUTE with the following:*

The Agency reserves the right to terminate the Contract at any time upon a determination by the Engineer that termination of the Contract is in the best interest of the Agency.

If the Agency elects to terminate the Contract, the termination of the Contract and the total compensation payable to the Contractor shall be governed by the following:

- a) The Engineer will issue the Contractor a signed written notice, specifying that the Contract is to be terminated. Upon termination of the Contract, the Contractor will be relieved of further responsibility for damage to the Work (excluding materials) as specified in 4-1.2 of the Standard Specifications, 7-16 of these Special Provisions and, except as otherwise directed in writing by the Engineer, the Contractor shall:
 - 1) Stop all work under the Contract except that specifically directed to be completed prior to Acceptance.
 - 2) Perform work the Engineer deems necessary to secure the project for termination.
 - 3) Remove equipment and plant from the site of the Work.
 - 4) Take action that is necessary to protect materials from damage.
 - 5) Notify all subcontractors and suppliers that the Contract is being terminated and that their contracts or orders are not to be further performed unless otherwise authorized in writing by the Engineer.
 - 6) Provide the Engineer with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work, including its storage location, and such other information as the Engineer may request.
 - 7) Dispose of materials not yet used in the Work as directed by the Engineer. It shall be the Contractor's responsibility to provide the Agency with good title to all materials purchased by the Agency hereunder, including materials for which partial payment has been made as provided in 9-3.2 and with bills of sale or other documents of title for those materials.
 - 8) Subject to the prior written approval of the Engineer, settle all outstanding liabilities and all claims arising out of subcontracts or orders for materials terminated hereunder. To the extent directed by the Engineer, the

Contractor shall assign to the Agency all the right, title and interest of the Contractor under subcontracts or orders for materials terminated hereunder.

- 9) Furnish the Engineer with the documentation required to be furnished by the Contractor under the provisions of the Contract including, on projects as to which Federal funds are involved, all documentation required under the Federal requirements included in the Contract.
 - 10) Take other actions directed by the Engineer.
- b) Acceptance of the contract as hereinafter specified shall not relieve the Contractor of responsibility for damage to materials. The Contractor shall continue to be responsible for damage to materials after issuance of the Notice of Termination, except as follows:
- 1) The Contractor's responsibility for damage to materials for which partial payment has been made as provided in 9-3.2 and for materials furnished by the Agency for use in the Work and unused shall terminate when the Engineer certifies that those materials have been stored in the manner and at the locations the Engineer has directed.
 - 2) The Contractor's responsibility for damage to materials purchased by the Agency subsequent to the issuance of the notice that the Contract is to be terminated shall terminate when title and delivery of those materials has been taken by the Agency.

When the Engineer determines that the Contractor has completed the Work under the Contract directed to be completed prior to termination and such other work as may have been ordered to secure the project for termination, the Engineer will formally accept the Contract, and immediately upon and after the acceptance by the Engineer, the Contractor will not be required to perform any further work thereon.

- c) Termination of the Contract shall not relieve the surety of its obligation for any just claims arising out of the work performed.
- d) Where Agency terminates the Contract for Agency's convenience and not due to the fault of Contractor, the total compensation to be paid to the Contractor shall be determined by the Engineer based on the following:
 - 1) The reasonable cost to the Contractor, without profit, for all work performed under the contract, including mobilization, demobilization and work done to secure the project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the work. When, in the opinion of the Engineer, the cost of a contract item of work is excessively high due to costs incurred to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that work in compliance with the requirements of the Plans and Specifications and the excessive actual cost shall be disallowed.
 - 2) A reasonable allowance for profit on the cost of the work performed as determined under part (1) above, provided the Contractor establishes to the satisfaction of the Engineer that it is reasonably probable that the

Contractor would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed 4 percent of the cost.

- 3) The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the Agency or otherwise disposed of as directed by the Engineer.
- 4) A reasonable allowance for the Contractor's administrative costs in determining the amount payable due to termination of the Contract.

All records of the Contractor and the Contractor's subcontractors, necessary to determine compensation in conformance with the provisions in this Section 6-5, shall be open to inspection or audit by representatives of the Agency at all times after issuance of the notice that the Contract is to be terminated and for a period of 3 years, thereafter, and those records shall be retained for that period.

After acceptance of the Work by the Agency, the Engineer may make payments on the basis of interim estimates pending issuance of the final estimate in conformance with the provisions in 9-3.2 and 9-4, when, in the Engineer's opinion, the amount thus paid, together with all amounts previously paid or allowed, will not result in total compensation in excess of that to which the Contractor will be entitled. All payments, including payment upon the final estimate shall be subject to deduction for prior payments and amounts, if any, to be kept or retained under the provisions of the Contract.

THE PROVISIONS IN THIS SECTION 6-5 SHALL BE PHYSICALLY INCLUDED IN ALL SUBCONTRACTS.

6-6.2 Extension of Time. *DELETE in its entirety and SUBSTITUTE with the following:*
The Agency may extend the time fixed for completion of the Work under the Contract from time to time. All applications for extensions of time shall be in writing and shall be filed with the Agency before the expiration of the original time fixed in the Contract or as previously extended.

An extension of time may be granted by the Agency after the expiration of the time originally fixed in the Contract or as previously extended, and the extension so granted shall be deemed to commence and be effective from the date of such expiration. Any extension of time shall not release the sureties upon any bond required under the Contract nor effect forfeitures due to delay.

No extension of time will be granted for delays that are not on the critical path.

6-8.1 Completion. *DELETE in its entirety and SUBSTITUTE with the following:*
When the Contractor considers the Work, or a designated portion of Work, if specified in the Contract Documents, is complete, the Contractor shall submit a written request to the Engineer for inspection. By submittal of such request, Contractor certifies that:

- a) Contract Documents have been reviewed by the Contractor.
- b) Work has been completed in accordance with Contract Documents and is ready for inspection.

- c) Equipment and systems have been tested, adjusted/balanced and are fully operational.

The Contractor shall submit the request a minimum of five (5) Working Days in advance of requested inspection date. Contractor shall be responsible for allowing sufficient time during the Contract period to complete inspections and make any corrections. Each day beyond the time prescribed to complete the Contract will be subject to assessment of liquidated damages in accordance with 6-9.

Should Agency Representative's inspection find Work incomplete, Agency Representative will notify the Contractor in writing, listing observed deficiencies. The Contractor shall remedy listed deficiencies immediately and send a request for final inspection. Failure of the Contractor to remedy deficiencies may, at the Agency's option, result in reinspection(s) of the work to identify additional deficiencies, if any. Agency's costs associated with reinspection(s) are subject to provisions of 6-8.2.

When the Agency confirms Work is complete and, closeout submittals, as referred to in 6-8.3 have been provided, Agency Representative will notify Contractor of date of completion on the Weekly Statement of Working Days.

ADD:

6-8.4 Reinspections. Should status of completion of Work require reinspection(s) by Agency due to failure of the Contractor to make corrections on initial inspection, Agency may deduct the amount of compensation for reinspection services from final payment to Contractor. Observed deficiencies in excess of ten (10) will be reason for reinspection.

Inspections initiated at the request of the Agency will not be subject to provisions of this Subsection.

ADD:

6-8.5 Closeout Submittals.

Contractor shall submit:

- a) Project Record Documents clearly marked with all changes to Plans within thirty (30) Calendar Days of Final Acceptance
- b) Operation and Maintenance Data
- c) Warranties and Bonds
- d) Spare Parts and Maintenance Materials, as specified
- e) Evidence of Payment and Release of Stop Payment Notices
- f) Other data and materials as may be required in the Contract Documents

6-9 LIQUIDATED DAMAGES. *DELETE in its entirety and SUBSTITUTE with the following:*

All work is to be completed in a total of **One Hundred Twenty (120) Working Days** from the date specified in the Notice to Proceed.

Liquidated damages shall be **Five Thousand Dollars (\$5,000)** per calendar day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

REVISE as follows:

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. *MODIFY to ADD the following:*

The Contractor shall render its machinery and equipment inoperable at all times except during actual construction. The Contractor shall be responsible for construction means, controls, techniques, sequences, procedures and construction safety.

ADD:

7-1.1.1 Equipment. Contractor shall stencil or stamp at a clearly visible location on each piece of equipment, except hand tools, an identifying number and:

- a) On compacting equipment, its make, model number, and empty gross weight that is either the manufacturer's rated weight or the scale weight.
- b) On meters and on the load-receiving element and indicators of each scale, the make, model, serial number, and manufacturer's rated capacity.

The Contractor shall submit a list describing each piece of equipment and its identifying number before commencement of the Work.

Upon request, the Contractor shall submit manufacturer's information that designates portable vehicle scale capacities.

The Contractor's measuring devices shall be tested and approved under California Test 109 in the Agency's presence or by any of the following:

- a) County Sealer of Weights and Measures
- b) Certified Scale Service Agency
- c) Division of Measurement Standards Official

7-1.2 Temporary Utility Services. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall, at its own expense, make all arrangements to furnish, install and maintain temporary water, electricity, telephone, and sanitary facilities for construction needs throughout construction period. Materials may be new or used, but must be adequate for the purposes intended, and must not violate requirements of applicable codes, specifications or standards.

The Contractor shall maintain systems to provide continuous services, modify, and extend services, as work progress requires. The Contractor shall completely remove temporary materials and equipment when construction needs can be met by use of permanent utility facilities.

The Contractor shall clean and repair damage caused by installation or use of temporary facilities, restore existing facilities used for temporary services to original or better condition, and restore permanent facilities used for temporary services to original condition.

For water, the Contractor shall:

- a) Provide adequate supply of water suitable for construction usage and needs.

Water Source: Irvine Ranch Water District (IRWD)

- a) Obtain meter, inspections and approvals prior to use of existing system.

- b) Comply with IRWD requirements.

Conservation:

- a) Minimize water use whenever possible.
- b) Maintain watering equipment in good working order.
- c) Repair leaks promptly.

When necessary to maintain pressure, provide temporary pumps, tanks and compressors.

For electricity, the Contractor shall:

- a) Provide portable power plants and/or connection to existing system for construction needs.
- b) Source of existing power: Southern California Edison Company (SCE). Prior to connecting to existing system:
 - 1) Obtain permit from City of Irvine, Community Development Department for installation of temporary power pole and/or system.
 - 2) Arrange for required inspections and coordinate temporary meter installation with City and SCE.

For sanitary facilities, the Contractor shall:

- a) Furnish and maintain portable toilet units in a clean, operable and sanitary condition for use by construction personnel.
- b) Place units in conformance with applicable laws, codes and regulations.

Pay all fees and charges for applications, non-City permits and inspections, installations, temporary meters, utility usage, service charges, maintenance, removals and restoration.

Contractor shall use standard products of service companies. At Contractor's option with prior approval by the Agency, patented specialty devices may be used, when in compliance with applicable codes and service company requirements.

7-2.3 Payroll Records. *MODIFY to ADD the following:*

The Contractor and all its subcontractors shall submit to the City and the Labor Commissioner (Division of Labor Standards Enforcement) certified payroll records every Friday until Notice of Completion is filed and recorded.

7-3 INSURANCE.

ADD:

7-3.5 Contractor's Pollution Liability. Contractors Pollution Liability Insurance covering all of the contractor's operations to include onsite and offsite coverage for bodily injury, property damage, defense costs, cleanup costs, coverage for offsite disposal facilities with minimum limits of Two Million Dollars (\$2,000,000) each loss and Four Million Dollars (\$4,000,000) in the aggregate.

Prior to commencing work, the Contractor shall provide the City the names and locations of disposal facilities for approval by the City.

7-3.8 Self-Insurance. Self-insurance will be subject to the Agency's review and prior approval. If the Contractor uses any form of self-insurance, it shall submit:

- a) A notice of election to self-insure.
- b) The coverages for which self-insurance applies.
- c) The amount of self-insurance.

- d) Declaration under the penalty of perjury by a certified public accountant certifying the accountant has applied Generally Accepted Accounting Principles (GAAP) guidelines and the Contractor has sufficient funds or other resources to cover the self-insurance amounts.
- e) Copy of its commercial general liability policy and its excess policy, including the declarations page, all amendments, riders, endorsements and other modifications in effect at the time of contract execution, for those amounts not covered by self-insurance.

Self-insurance programs and self-insured retentions in insurance policies are subject to separate annual review and approval by the Agency of evidence of the Contractor's financial capacity to respond. Additionally, self-insurance programs or retentions must provide the Agency with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance.

7-5 PERMITS. *DELETE in its entirety and SUBSTITUTE with the following:*

7-5 PERMITS AND LICENSES. Except as otherwise specified in the Special Provisions, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the Work. These permits and licenses shall be obtained in sufficient time to prevent delays to the Work. The Contractor shall maintain a copy of all permits on the site. The Contractor shall furnish the Agency with copies of permits and licenses within one (1) Working Day of obtaining them. The Contractor shall comply with all rules and regulations included in permits. Should the Contractor fail to conform to said rules and regulations, the Agency reserves the right to perform the work necessary to conform to the rules and regulations and the cost of such work will be deducted from any monies due or to become due to the Contractor.

The Contractor and all subcontractors shall obtain within five (5) Calendar Days of executing the Contract, a current City of Irvine Business License and maintain such license(s) throughout the term of the Contract.

In the event that the Agency has obtained permits, licenses or other authorizations applicable to the Work, the Contractor shall obtain a rider, pay all fees and comply with the provisions of said permits, licenses and other authorizations.

7-6 THE CONTRACTOR'S REPRESENTATIVE. *DELETE the 3^d sentence in the 1st paragraph and SUBSTITUTE with the following:*

Said authorized representative shall be present at the site of the Work at all times while Work is actually in progress on the Contract. When Work is not in progress and during periods when Work is suspended, arrangements acceptable to the Agency Representative shall be made for any emergency work, which may be required.

ADD the following after the last sentence of the 1st paragraph:

Whenever the Contractor or his authorized representative is not present on any particular part of the Work where it may be desired to give direction, orders will be given by the Agency Representative, which shall be received and obeyed by the superintendent or supervisor who may have charge of the particular work in reference to which the orders are given.

The Agency reserves the right to approve the Contractor's Superintendent. Once approved, the Superintendent shall remain on the project for the duration of the project so long as he is in the employment of the Contractor.

7-7 COOPERATION AND COLLATERAL WORK. *DELETE in its entirety 4th paragraph and SUBSTITUTE with the following:*

Nothing in the Contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the project. The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by the Agency in the construction of the project, to the end that the Contractor may perform this Contract in the light of such other constraints, if any.

The Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on or adjacent to the project. If the performance of any Contract for the project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Engineer will decide which contractor shall cease work temporarily and which contractor shall continue or whether the work under the contracts can be coordinated so that the Contractors may proceed simultaneously. On all questions concerning conflicting interest of Contractors performing related work, the decision of the Engineer shall be binding upon Contractors concerned. The Agency, the Engineer, the Agency Representative, and each of their officers, employees, and agents shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award of performance or attempted performance of any other contract or contracts on the project or caused by a decision or omission of the Engineer respecting the order of precedence in the performance of the contracts.

If, through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the Work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Agency, the Engineer, the Agency Representative, or their consultants on account of any damage alleged to have been so sustained, the Agency will notify the Contractor. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of the assertion of any such claims or liabilities against the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents against any such claim.

ADD:

7-7.1 Coordination.

It should be anticipated that work by other contractors, utility companies and City of Irvine forces will be underway adjacent to or within the limits of this project during progress of the Work on this contract.

The Contractor shall coordinate his operations with the operations of other contractors during stage construction, traffic shifts, opening of new lanes, closing of lanes, roads or ramps, detours, traffic signal facilities, shared irrigation facilities for landscaped areas and during any other operation that may affect or have influence on adjacent projects including, but not limited to, those identified in this subsection.

7-8 WORK SITE MAINTENANCE. *MODIFY to ADD the Following:*

Section 7-8 includes specifications for performing work site maintenance, including spill prevention and control, material management, waste management, water pollution control and nonstormwater management.

Projects are required to comply with the City of Irvine Resolution No. 07-18, which establishes requirements for recycling and diversion of construction and demolition waste.

The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

Linear sediment barriers must comply with 7-8.6.2 of the Standard Specifications and the Contract Special Provisions.

ADD:

7-8.1.1 Construction Cleaning. The Contractor shall:

- a) Initiate and maintain a daily program to prevent accumulation of debris on-site and along access roads and haul routes. Maintain areas under Contractor's control free of waste materials, debris, weeds 6" high, and rubbish. Maintain site in a clean and orderly condition.
- b) Provide suitable covered containers for deposit of debris and rubbish. Dispose of accumulation of extraneous materials, prohibit overloading of trucks to prevent spillages on access and haul routes and provide daily inspection of haul routes to enforce requirements.
- c) The Contractor shall supply self-loading motorized street sweepers equipped with a functional water spray system as part of his daily program.
- d) Schedule at a minimum, weekly collection and disposal of debris. Provide additional collections and disposals of debris whenever the weekly schedule is inadequate to prevent accumulation.

The Contractor shall remove debris from closed or remote spaces prior to closing the space, control cleaning operations to minimize dust and other particulates and immediately remove clay and earth which adhere to the paved surface of the roadway. Remove by hand scraping, washing, sweeping, and/or other method(s) which will leave a clean non-skid surface without impairing, injuring or loosening the surface.

The Contractor shall remove waste materials, debris, vegetation, other rubbish, and non-recyclable materials as required by the Contract Documents, and dispose of off-site in an approved disposal site or recycling center.

Unless otherwise specified in the Special Provisions, all concrete, asphalt, aggregate or sand base material, cement block, trees, shrubs, bushes, and all other recyclable material generated during cleaning, demolition, clearing and grubbing or other phases of the work is to be disposed of at appropriate recycling centers. The Contractor shall be responsible for removing reinforcing steel, wood, or other deleterious materials as required by the recycling center for acceptance of recycled materials. The Contractor shall supply proof of disposal at a recycling center. The proof of disposal shall include verification of tonnage by certified weigh masters tickets. If weigh masters tickets are not feasible, the Contractor and Agency Representative shall estimate the tonnage prior to disposal at the recycling centers.

Known recycling centers:

Ewles Materials
16081 Construction Circle West
Irvine

The Contractor is required to control dust throughout the life of the Contract. The control may be required by job conditions or Agency Representative. In any case, the Contractor shall use water or other means to control the dust. No chemical agents may be used without written authorization from the Agency. The Contractor shall be solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the Work, or by public traffic, either inside or outside the right of way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

No separate payment will be made for any work performed or material used in cleaning the project. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

ADD:

7-8.1.2 Final Cleaning. The Contractor shall execute cleaning prior to inspection for completion of the Work. The Contractor shall use materials which will not create hazards to health or property, and which will not damage surfaces, remove debris from and otherwise clean exposed-to-view surfaces, remove temporary protection and labels not required to remain, clean finishes free of foreign substances, remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean, clean other exterior surfaces and where applicable:

- a) Clean transparent and glossy materials to a polished condition; remove foreign substances. Polish reflective surfaces to a clear shine.
- b) Vacuum clean carpeted and similar soft surfaces.
- c) Clean resilient and hard surface floors.
- d) Clean surfaces of equipment; remove excess lubrication.
- e) Clean plumbing fixtures to a sanitary condition.
- f) Clean permanent filters of ventilating equipment and replace disposable filters when units have been operated during construction; in addition, clean ducts, blowers, and coils when units have been operated without filters during construction.
- g) Clean light fixtures and lamps.
- h) Remove waste, foreign matter, and debris from roofs, gutters, areaways, and drainage systems.

ADD:

7-8.4.3 Material Management.

7-8.4.3.1 General. The Contractor shall minimize or eliminate discharge of material into the air, storm drain systems, and receiving waters while taking delivery of, using, or storing the following materials:

- a) Hazardous chemicals, including acids, lime, glues, adhesives, paints, solvents, and curing compounds
- b) Soil stabilizers and binders

- c) Fertilizers
- d) Detergents
- e) Plaster
- f) Petroleum materials, including fuel, oil, and grease
- g) Asphalt and concrete components
- h) Pesticides and herbicides

The Contractor's employees trained in emergency spill cleanup procedures must be present during the unloading of hazardous materials or chemicals.

The Contractor shall use less hazardous materials if practicable.

The following activities must be performed at least 100 feet from concentrated flows of stormwater, drainage courses, and inlets if within the floodplain and at least 50 feet if outside the floodplain, unless otherwise authorized:

- a) Stockpiling materials
- b) Storing pile-driving equipment and liquid waste containers
- c) Washing vehicles and equipment in outside areas
- d) Fueling and maintaining vehicles and equipment

7-8.4.3.2 Material Storage. If materials are stored by the Contractor, he shall:

- a) Store liquids, petroleum materials, and substances listed in 40 CFR 110, 117, and 302 and place them in secondary containment facilities as specified by USDOT for storage of hazardous materials.
- b) Ensure that secondary containment facilities are impervious to the materials stored there for a minimum contact time of 72 hours.
- c) Cover secondary containment facilities during nonworking days and whenever precipitation is forecasted. Secondary containment facilities must be adequately ventilated.
- d) Keep secondary containment facilities free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place it into drums within 24 hours. Handle the liquid as hazardous waste in accordance with subsection 7-8 of the Standard Specifications and these Special Provisions.
- e) Not store incompatible materials, such as chlorine and ammonia, in the same secondary containment facility.
- f) Store materials in their original containers with the original material labels maintained in legible condition. Immediately replace damaged or illegible labels.
- g) Ensure that secondary containment facilities have the capacity to contain precipitation from a 24-hour-long, 25-year storm, plus 10 percent of the aggregate volume of all containers or the entire volume of the largest container within the facility, whichever is greater.
- h) Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during nonworking days and whenever precipitation is forecasted.
- i) Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well-organized, and equipped with cleanup supplies appropriate for the materials being stored.
- j) Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation and at least weekly during other times.

7-8.4.3.3 Stockpile Management. The Contractor shall minimize stockpiling of materials at the job site.

The Contractor shall implement water pollution control practices within 72 hours of stockpiling material or before a forecasted storm event, whichever occurs first. If stockpiles are being used, do not allow soil, sediment, or other debris to enter storm drains, open drainages, and watercourses.

Active and inactive soil stockpiles must be:

- a) Covered with soil stabilization material or a temporary cover
- b) Surrounded with a linear sediment barrier

Stockpiles of asphalt concrete and PCC rubble, HMA, aggregate base, or aggregate sub base must be:

- a) Covered with a temporary cover
- b) Surrounded with a linear sediment barrier

Stockpiles of pressure-treated wood must be:

- a) Placed on pallets
- b) Covered with impermeable material

Stockpiles of cold mix asphalt concrete must be:

- a) Placed on an impervious surface
- b) Covered with an impermeable material
- c) Protected from stormwater run-on and runoff

The Contractor shall control wind erosion year round.

The Contractor shall repair or replace linear sediment barriers and covers as needed to keep them functioning properly. Whenever sediment accumulates to 1/3 of the linear sediment barrier height, remove the accumulated sediment.

7-8.5.3 Spill Prevention and Emergency Response Plan.

ADD:

7-8.5.3.1 Spill Prevention and Control. The Contractor shall keep material or waste storage areas clean, well-organized, and equipped with enough cleanup supplies for the material being stored.

The Contractor shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site. Whenever the Contractor spills or leaks chemicals or hazardous substances at the job site, he is responsible for all associated cleanup costs and related liability.

The Contractor shall report minor, semi significant, and significant or hazardous spills to the WPC manager and the WPC manager must notify the Engineer immediately.

As soon as it is safe, the Contractor shall contain and clean up spills of petroleum materials and sanitary and septic waste substances listed under 40 CFR, parts 110, 117, and 302.

ADD:

7-8.5.3.2 Minor Spills. Minor spills consist of quantities of oil, gasoline, paint, or other materials that are small enough to be controlled by a first responder upon discovery of the spill.

The Contractor shall clean up a minor spill using the following procedures:

- a) Contain the spread of the spill
- b) Recover the spilled material using absorption
- c) Clean the contaminated area
- d) Dispose of the contaminated material and absorbents promptly and properly

ADD:

7-8.5.3.3 Semi Significant Spills. Semi significant spills consist of spills that can be controlled by a first responder with help from other personnel.

The Contractor shall clean up a semi significant spill immediately using the following procedures:

- a) Contain the spread of the spill.
- b) On paved or impervious surfaces, encircle and recover the spilled material with absorbent materials. Do not allow the spill to spread widely.
- c) If the spill occurs on soil, contain the spill by constructing an earthen dike and dig up the contaminated soil for disposal.
- d) If the spill occurs during precipitation, cover the spill with 10-mil plastic sheeting or other material to prevent contamination of runoff.
- e) Dispose of the contaminated material promptly and properly.

ADD:

7-8.5.3.4 Significant or Hazardous Spills. Significant or hazardous spills consist of spills that cannot be controlled by job site personnel.

The Contractor shall immediately notify qualified personnel of a significant or hazardous spill and take the following steps:

- a) Do not attempt to clean up the spill until qualified personnel have arrived.
- b) Notify the Engineer and follow up with a report.
- c) Obtain the immediate services of a spill contractor or hazardous material team.
- d) Notify local emergency response teams by dialing 911 and county officials by using the emergency phone numbers retained at the job site.
- e) Notify the California Emergency Management Agency State Warning Center at 916-845-8911.
- f) Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under 40 CFR 110, 119, and 302.
- g) Notify other agencies as appropriate, including:
 - 1) Fire Department
 - 2) Public Works Department
 - 3) Coast Guard
 - 4) Highway Patrol
 - 5) City Police or County Sheriff's Department
 - 6) Department of Toxic Substances
 - 7) California Division of Oil and Gas
 - 8) Cal/OSHA
 - 9) Regional Water Resources Control Board

The Contractor shall prevent a spill from entering stormwater runoff before and during cleanup activities and shall not bury or wash the spill with water.

ADD:

7-8.5.4 Waste Management.

7-8.5.4.1 Paint Waste. The Contractor shall clean water-based and oil-based paint from brushes or equipment within a contained area in a way that does not contaminate soil, receiving waters, or storm drain systems. Handle and dispose of the following as hazardous waste: paints, thinners, solvents, residues, and sludges that cannot be recycled or reused. When thoroughly dry, dispose of the following as solid waste under: dry latex paint, paint cans, used brushes, rags, absorbent materials, and drop cloths.

7-8.5.4.2 Concrete Waste. The Contractor shall use practices to prevent the discharge of asphalt concrete, PCC, and HMA waste into storm drain systems and receiving waters.

The Contractor shall collect and dispose of asphalt concrete, PCC, and HMA waste at locations where:

- a) Concrete material, including grout, is used.
- b) Concrete dust and debris result from demolition.
- c) Saw cutting, coring, grinding, grooving, or hydro-concrete demolition creates a residue or slurry.
- d) Concrete trucks or other concrete-coated equipment is cleaned at the job site.

7-8.5.4.3 Sanitary and Septic Waste. The Contractor shall not bury or discharge wastewater from a sanitary or septic system anywhere at the site of Work. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. The Contractor shall place a portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines.

The Contractor shall comply with local health agency provisions if using an on-site disposal system.

7-8.5.4.4 Liquid Waste. The Contractor shall use practices that will prevent job-site liquid waste from entering storm drain systems and receiving waters. Liquid wastes include the following:

- a) Drilling slurries or fluids
- b) Grease-free and oil-free wastewater and rinse water
- c) Dredgings, including liquid waste from cleaning drainage systems
- d) Liquid waste running off a surface, including wash or rinse water
- e) Other nonstormwater liquids not covered by separate permits

The Contractor shall hold liquid waste in structurally sound, leak-proof containers, such as roll-off bins or portable tanks.

Liquid waste containers must be of sufficient quantity and volume to prevent overflow, spills, and leaks.

The Contractor shall store containers at least 50 feet from moving vehicles and equipment.

The Contractor shall remove and dispose of deposited solids from sediment traps in accordance with 7-8 of the Standard Specifications and these Special Provisions. Liquid waste may require testing to determine hazardous material content before disposal.

The Contractor shall dispose of drilling fluids and residue.

If an authorized location is available within the job site, fluids and residue exempt under 23 CA Code of Regs § 2511(g) may be dried by evaporation in a leak-proof container. The

Contractor shall dispose of the remaining solid waste in accordance with 7-8 of the Standard Specifications and these Special Provisions.

ADD:

7-8.5.5 Nonstormwater Management.

7-8.5.5.1 Water Control and Conservation. The Contractor shall manage water used for work activities in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Obtain authorization before washing anything at the job site with water that could discharge into a storm drain system or receiving waters. Report discharges immediately.

The Contractor shall implement water conservation practices if water is used at the job site. Inspect irrigation areas. Adjust watering schedules to prevent erosion, excess watering, or runoff. Shut off the water source to broken lines, sprinklers, or valves and repair breaks within 24 hours. Reuse water from waterline flushing for landscape irrigation if practicable. Sweep and vacuum paved areas. Do not wash paved areas with water.

The Contractor shall direct runoff water, including water from water line repair, from the job site to areas where it can infiltrate into the ground. Do not allow runoff water to enter storm drain systems and receiving waters. Do not allow spilled water to escape filling areas for water trucks. Direct water from off-site sources around the job site if practicable. Minimize the contact of off-site water with job site water.

7-8.5.5.2 Illicit Connection and Illegal Discharge Detection and Reporting. Before starting work, the Contractor shall inspect the job site and the job site's perimeter for evidence of illicit connections, illegal discharges, and dumping. After starting work, inspect the job site and perimeter on a daily schedule for illicit connections and illegal dumping and discharges.

Whenever illegal connections, discharges, or dumping are discovered, The Contractor shall notify the Engineer immediately, should take no further action unless ordered and assume that unlabeled or unidentifiable material is hazardous.

The Contractor shall look for the following evidence of illicit connections, illegal discharges, and dumping:

- a) Debris or trash piles
- b) Staining or discoloration on pavement or soils
- c) Pungent odors coming from drainage systems
- d) Discoloration or oily sheen on water
- e) Stains and residue in ditches, channels, or drain boxes
- f) Abnormal water flow during dry weather
- g) Excessive sediment deposits
- h) Nonstandard drainage junction structures
- i) Broken concrete or other disturbances at or near junction structures

7-8.5.5.3 Vehicle and Equipment Cleaning. The Contractor shall limit vehicle and equipment cleaning or washing at the job site except for what is necessary to control vehicle tracking or hazardous waste. The Contractor shall notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam and contain

and recycle or dispose of resulting waste under 7-10.4.4. The Contractor shall not use diesel to clean vehicles or equipment and minimize the use of solvents.

The Contractor shall clean or wash vehicles and equipment in a structure equipped with disposal facilities. The Contractor may wash vehicles in an outside area if the area is:

- a) Paved with asphalt concrete, HMA, or PCC
- b) Surrounded by a containment berm
- c) Equipped with a sump to collect and dispose of wash water

The Contractor shall use as little water as practicable whenever washing vehicles and equipment with water and hoses used must be equipped with a positive shutoff valve. The Contractor shall discharge liquid from wash racks to a recycling system or to another authorized system. Remove liquids and sediment as necessary.

7-8.5.5.4 Vehicle and Equipment Fueling and Maintenance. If practicable, the Contractor shall perform maintenance on vehicles and equipment off-site.

If fueling or maintenance must be done at the job site, the Contractor shall assign a site or sites, and obtain authorization before using them. The Contractor shall minimize mobile fueling and maintenance activities. The Contractor's fueling and maintenance activities must be performed on level ground in areas protected from stormwater run-on and runoff.

The Contractor shall use containment berms or dikes around fueling and maintenance areas. Keep adequate quantities of absorbent spill-cleanup material and spill kits in the fueling or maintenance area and on fueling trucks. The Contractor shall dispose of spill-cleanup material and kits immediately after use and use drip pans or absorbent pads during fueling or maintenance.

The Contractor shall not leave fueling or maintenance areas unattended during fueling and maintenance activities. The Contractor's fueling nozzles must be equipped with an automatic shutoff control. The Contractor shall use equipment with vapor-recovery fueling nozzles where required by the Air Quality Management District, secure nozzles in an upright position when not in use and shall not top off fuel tanks.

The Contractor shall recycle or properly dispose of used batteries and tires.

If leaks cannot be repaired immediately, the Contractor shall remove the vehicle or equipment from the job site.

7-8.5.5.5 Material and Equipment Used Over Water. The Contractor shall place drip pans and absorbent pads under vehicles and equipment used over water, keep an adequate supply of spill-cleanup material with vehicles and equipment, place drip pans or plastic sheeting under vehicles and equipment on docks, barges, or other surfaces over water whenever vehicles or equipment will be idle for more than one (1) hour.

The Contractor shall furnish watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools and shall secure material to prevent spills or discharge into the water due to wind.

The Contractor shall report discharges to receiving waters immediately upon discovery and shall submit a discharge notification.

7-8.5.5.6 Structure Removal Over or Adjacent to Water. The Contractor shall not allow demolished material to enter storm drain systems and receiving waters, use authorized covers and platforms to collect debris, use attachments on equipment to catch debris during small demolition activities and empty debris-catching devices daily and dispose of debris in accordance with 7-8 of the Standard Specifications and these Special Provisions.

7-8.5.5.7 Paving, Sealing, Saw Cutting, Grooving, and Grinding Activities. The Contractor shall prevent material from entering storm drain systems and receiving waters including:

- a) Cementitious material
- b) Asphaltic material
- c) Aggregate or screenings
- d) Saw cutting, grooving, and grinding residue
- e) Pavement chunks
- f) Shoulder backing
- g) Methacrylate
- h) Sandblasting residue

The Contractor shall cover drainage inlets and use linear sediment barriers to protect downhill receiving waters until paving, sealing, saw cutting, grooving, and grinding activities are completed and excess material has been removed and cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

Whenever precipitation is forecasted, the Contractor shall limit paving, saw cutting, and grinding to places where runoff can be captured.

The Contractor shall not start seal coat, tack coat, slurry seal, or fog seal activities whenever precipitation is forecasted during the application and curing period and shall not excavate material from existing roadways during precipitation.

The Contractor shall use a vacuum to remove slurry immediately after slurry is produced and shall not allow the slurry to run onto lanes open to traffic or off the pavement.

The Contractor shall collect the residue from PCC grooving and grinding activities with a vacuum attachment on the grinding machine. The Contractor shall not leave the residue on the pavement or allow the residue to flow across pavement.

The Contractor shall not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals.

The Contractor shall park paving equipment over drip pans or plastic sheeting with absorbent material to catch drips if the paving equipment is not in use.

7-8.5.5.8 Thermoplastic Striping and Pavement Markers. The Contractor shall not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets and receiving waters.

The Contractor shall not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets and receiving waters.

The Contractor shall collect and dispose of bituminous material from the roadway after removing markers.

7-8.5.5.9 Pile Driving. The Contractor shall keep spill kits and cleanup materials at pile driving locations; park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material; protect pile driving equipment by parking on plywood and covering with plastic whenever precipitation is forecasted.

The Contractor shall store pile driving equipment on level ground and protect it from stormwater run-on when not in use. Use vegetable oil instead of hydraulic fluid if practicable.

7-8.5.5.10 Concrete Curing. The Contractor shall not overspray chemical curing compounds and shall not allow runoff of curing compounds. The Contractor shall minimize the drift by spraying as close to the concrete as practicable, cover drainage inlets before applying the curing compound, and minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture when concrete is curing.

7-8.5.5.11 Concrete Finishing. The Contractor shall collect and dispose of water and solid waste from high-pressure water blasting, collect and dispose of sand and solid waste from sandblasting. Before sandblasting, the Contractor shall cover drainage inlets within 50 feet of sandblasting, and shall minimize the drift of dust and blast material by keeping the nozzle close to the surface of the concrete. If the character of the blast residue is unknown, the Contractor shall test it for hazardous materials and dispose of it properly.

The Contractor shall inspect containment structures for concrete finishing for damage before each day of use and before forecasted precipitation and remove liquid and solid waste from containment structures after each work shift.

7-8.5.5.12 Sweeping. The Contractor shall sweep by hand or mechanical methods, such as vacuuming, and shall not use methods that use only mechanical kick brooms. The Contractor shall sweep paved roads at construction entrance and exit locations and paved areas within the job site:

- a) During clearing and grubbing activities
- b) During earthwork activities
- c) During trenching activities
- d) During pavement structure activities
- e) When vehicles are entering and leaving the job site
- f) After soil-disturbing activities
- g) After observing off-site tracking of material
- h) As deemed necessary by the Engineer

The Contractor shall monitor paved areas and roadways within the project and sweep within:

- a) 1 hour whenever sediment or debris is observed during activities that require sweeping.
- b) 24 hours whenever sediment or debris is observed during activities that do not require sweeping.

The Contractor shall remove collected material, including sediment, from paved shoulders, drain inlets, curbs and dikes, and other drainage areas, may stockpile collected material at the job site, and shall dispose of collected material at least once per week if stockpiled.

The Contractor shall keep dust to a minimum during street sweeping activities and use water or a vacuum whenever dust generation is excessive or sediment pickup is ineffective.

The Contractor shall remove and dispose of trash collected during sweeping.

7-8.5.5.13 Dewatering. Dewatering consists of discharging accumulated stormwater, groundwater, or surface water from excavations or temporary containment facilities. The Contractor shall perform dewatering work as specified for the work items involved, such as temporary active treatment system or dewatering and discharge.

If dewatering and discharging activities are not specified under a work item and the Contractor performs dewatering activities, he shall:

- a) Conduct dewatering activities under the Caltrans' *Field Guide for Construction Site Dewatering*.
- b) Ensure that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials.
- c) Discharge the water within the project limits if approved by the Engineer. Dispose of the water if it cannot be discharged within project limits due to site constraints or contamination.
- d) Not discharge stormwater or nonstormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface.
- e) Notify the Engineer immediately upon discovering any such condition.

7-8.6 Water Pollution Control.

7-8.6.1 General. *ADD the following after the last paragraph:*

This project is Risk Level 2.

ADD:

7-8.6.1.1 Definitions and Abbreviations.

Active and inactive areas: (1) Active areas have soil disturbing work activities occurring at least once within 15 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

BMPs: Best Management Practices are water pollution control practices.

Construction phase: Construction phases are (1) Highway Construction including work activities for building roads and structures, (2) Plant Establishment including maintenance on vegetation installed for final stabilization, and (3) Suspension where work activities are suspended and areas are inactive.

NAL: Numeric Action Level.

NEL: Numeric Effluent Limit.

Normal working hours: The hours the Contractor normally works on this project.

Preparation Manual: The Caltrans' "Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual."

QSD: Qualified SWPPP Developer.

QSP: Qualified SWPPP Practitioner.

Qualified rain event: A qualified rain event is a storm that produces at least 0.5 inch of precipitation with a 48 hour or greater period between storms.

REAP: Rain Event Action Plan.

SAP: Sampling and Analysis Plan.

SSC: Suspended Sediment Concentration.

SWRCB: State Water Resources Control Board.

WPC: Water Pollution Control.

WPC Manager: The Contractor's Water Pollution Control Manager. The WPC Manager implements water pollution control work described in the SWPPP and oversees revisions and amendments to the SWPPP.

7-8.6.1.2 Summary. Section 7-8.6 includes general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.

Information on forms, reports, and other documents can be found in the following Caltrans manuals:

- a) *Field Guide for Construction Site Dewatering*
- b) *Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual*
- c) *Construction Site Best Management Practices (BMP) Manual*
- d) *Construction Site Monitoring Program (CSMP) Guidance Manual*

For the above-referenced manuals, go to the Caltrans' website for the Division of Construction, Storm Water and Water Pollution Control at (<http://www.dot.ca.gov/hq/construc/stormwater/>) or the Caltrans' publication distribution unit.

The Contractor shall not start job site activities until:

- a) The WPCP or SWPPP, in accordance with 7-8.6.3 of the Special Provisions, is authorized.
- b) The waste discharge identification number is issued if the project requires a SWPPP.
- c) WPCP or SWPPP review requirements have been fulfilled. If the RWQCB requires time for review, allow 30 days for the review.

If the Contractor operates a Contractor-support facility, the Contractor shall protect stormwater systems or receiving waters from the discharge of potential pollutants by using water pollution control practices.

Contractor-support facilities include:

- a) Staging areas
- b) Storage yards for equipment and materials
- c) Mobile operations
- d) Batch plants for PCC and HMA
- e) Crushing plants for rock and aggregate
- f) Other facilities installed by the Contractor for his, such as haul roads

Discharges from manufacturing facilities, such as batch plants and crushing plants, must comply with the general waste discharge requirements for *Order No. 97-03-DWQ, NPDES General Permit No. CAS000001*, issued by the State Water Resources Control Board for "Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities" and referred to herein as "General Industrial Permit." For the General Industrial Permit, go to the website for the State Water Resources Control Board.

If the Contractor operates a batch plant to manufacture PCC, HMA, or other material or a crushing plant to produce rock or aggregate, the Contractor shall obtain coverage under the General Industrial Permit. The Contractor must be covered under the General Industrial Permit for batch plants and crushing plants located:

- a) Outside of the job site

- b) Within the job site that serve 1 or more contracts

If the Contractor obtains or disposes of material at a noncommercially operated borrow or disposal site, the Contractor shall prevent water pollution due to erosion at the site during and after completion of his activities. Upon completion of his work, the Contractor shall leave the site in a condition such that water will not collect or stand therein.

The Agency does not pay for water pollution control practices at Contractor-support facilities and noncommercially operated borrow or disposal sites.

7-8.6.1.3 Submittals. Within 48 hours after the conclusion of a storm event resulting in a discharge, after a nonstormwater discharge, or after receiving a written notice or an order from the RWQCB or another regulatory agency, the Contractor's WPC manager must submit the following information:

- a) Date, time, location and nature of the activity and the cause of the notice or order
- b) Type and quantity of discharge
- c) Water pollution control practices in use before the discharge or before receiving the notice or order
- d) Description of water pollution control practices and corrective actions taken to manage the discharge or cause of the notice

The Contractor shall submit water pollution control training records for all employees and subcontractors who will be working at the job site as an informational submittal that includes the training subjects, training dates, ongoing training, and tailgate meetings with the submittal. The Contractor shall submit records for:

- a) Existing employees within 5 business days of obtaining SWPPP or WPCP authorization
- b) New employees within 5 business days of receiving the training
- c) Subcontractor's employees at least 5 business days before a subcontractor starts work

At least Five (5) business days before operating any Contractor-support facility, the Contractor shall submit:

- a) A plan showing the location and quantity of water pollution control practices associated with the Contractor-support facility
- b) A copy of the notice of intent approved by the RWQCB and the WPCP or SWPPP approved by the RWQCB if the Contractor will be operating a batch plant or a crushing plant under the General Industrial Permit

7-8.6.1.4 Quality Control and Assurance.

Training

The Contractor shall employees must receive water pollution control training before starting work at the job site.

For the Contractor's project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work:

- a) The Contractor shall provide stormwater training in the following subjects:
 - 1) Water pollution control rules and regulations
 - 2) Implementation and maintenance for:
 - (a) Temporary soil stabilization
 - (b) Temporary sediment control
 - (c) Tracking control
 - (d) Wind erosion control
 - (e) Material pollution prevention and control

- (f) Waste management
 - (g) Nonstormwater management
 - b) The Contractor shall conduct weekly training meetings covering:
 - 1) Deficiencies and corrective actions for water pollution control practices
 - 2) Water pollution control practices required for work activities during the week
 - 3) Spill prevention and control
 - 4) Material delivery, storage, usage, and disposal
 - 5) Waste management
 - 6) Nonstormwater management procedures
- Training for personnel who collect water quality samples must include:
- a) CSMP review
 - b) Health and safety review
 - c) Sampling simulations

7-8.6.1.5 Water Pollution Control Manager.

General

The Contractor's WPC manager must be a QSP if the project requires a WPCP. The Contractor's WPC manager must be a QSD if the project requires a SWPPP.

The Contractor shall assign one (1) WPC manager to implement the WPCP or SWPPP, whichever is applicable for the project.

Qualifications

The Contractor's QSD must:

- a) Have completed the stormwater management training described in the Caltrans' website for the Division of Construction, Storm Water and Water Pollution Control Information
- b) Be registered or certified for at least one of the following:
 - 1) California registered civil engineer
 - 2) California registered professional geologist or engineering geologist
 - 3) California licensed landscape architect
 - 4) Professional hydrologist registered through the American Institute of Hydrology
 - 5) Certified Professional in Erosion and Sediment Control (CPESC)[™] registered through Enviro Cert International, Inc.
 - 6) Certified Professional in Storm Water Quality (CPSWQ)[™] registered through Enviro Cert International, Inc.
 - 7) Professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET)

The Contractor's QSP must comply with the qualifications for a QSD or must:

- a) Have completed the storm water management training described in the Caltrans' website for the Division of Construction, Storm Water and Water Pollution Control Information
- b) Be certified for at least one of the following:
 - 1) Certified Erosion, Sediment and Storm Water Inspector (CESSWI)[™] registered through Enviro Cert International, Inc.
 - 2) Certified Inspector of Sediment and Erosion Control (CISEC) registered through CISEC, Inc.

Responsibilities

The Contractor's WPC manager must:

- a) Be responsible for water pollution control work
- b) Be the primary contact for water pollution control work
- c) Oversee:
 - 1) Maintenance of water pollution control practices
 - 2) Inspections of water pollution control practices identified in the SWPPP or WPCP
 - 3) Inspections and reports for visual monitoring
 - 4) Preparation and implementation of REAPs
 - 5) Sampling and analysis
 - 6) Preparation and submittal of:
 - (a) NAL exceedance reports
 - (b) NEL violation reports
 - (c) SWPPP annual certification
 - (d) Annual reports
 - (e) BMP status reports
- a) Oversee and enforce hazardous waste management practices, including spill prevention and control measures
- b) Have authority to mobilize crews to make immediate repairs to water pollution control practices
- c) Ensure that all employees have current water pollution control training
- d) Implement the authorized SWPPP or WPCP
- e) Amend the SWPPP or WPCP if required
- f) Be at the job site within 2 hours of being contacted
- g) Have the authority to stop construction activities damaging water pollution control practices or causing water pollution

7-8.6.1.6 Construction.

General

The Contractor shall install facilities and devices used for water pollution control practices before performing work activities. The Contractor shall install soil stabilization materials for water pollution control practices in all work areas that are inactive and before storm events.

The Contractor shall repair or replace water pollution control practices within 24 hours of discovering any damage, unless a longer period is authorized.

The Agency will not pay for the cleanup, repair, removal, disposal, or replacement of water pollution control practices due to improper installation or the Contractor's negligence.

The Contractor shall retain a printed copy of the authorized WPCP or SWPPP at the job site at all times.

Monitoring

The Contractor shall monitor the National Weather Service's forecast on a daily basis. For the National Weather Service's forecast, go to the website for the National Weather Service.

Inspections

The Contractor shall use the *Stormwater Site Inspection Report* form for documenting site inspections.

The Contractor's WPC manager must oversee:

- a) Inspections of water pollution control practices identified in SWPPP or WPCP:
 - 1) Before a forecasted storm event
 - 2) After a qualifying rain event that produces site runoff
 - 3) At 24-hour intervals during extended storm events
 - 4) On a predetermined schedule of at least once a week
- b) Daily inspections of:
 - 1) Storage areas for hazardous materials and waste
 - 2) Hazardous waste disposal and transporting activities
 - 3) Hazardous material delivery and storage activities
- c) Inspections of:
 - 1) Vehicle and equipment cleaning facilities:
 - (a) Daily if vehicle and equipment cleaning occurs daily
 - (b) Weekly if vehicle and equipment cleaning does not occur daily
 - 2) Vehicle and equipment maintenance and fueling areas:
 - (a) Daily if vehicle and equipment maintenance and fueling occurs daily
 - (b) Weekly if vehicle and equipment maintenance and fueling does not occur daily
 - 3) Vehicles and equipment at the job site for leaks and spills on a daily schedule. Verify that operators are inspecting vehicles and equipment each day of use.
 - 4) Demolition sites within 50 feet of storm drain systems and receiving waters daily.
 - 5) Pile driving areas for leaks and spills:
 - (a) Daily if pile driving occurs daily
 - (b) Weekly if pile driving does not occur daily
 - 6) Temporary concrete washouts:
 - (a) Daily if concrete work occurs daily
 - (b) Weekly if concrete work does not occur daily
 - 7) Paved roads at job site access points for street sweeping:
 - (a) Daily if earthwork and other sediment or debris-generating activities occur daily
 - (b) Weekly if earthwork and other sediment or debris-generating activities do not occur daily
 - (c) Within 24 hours of precipitation forecasted by the National Weather Service
 - 8) Dewatering work:
 - (a) Daily if dewatering work occurs daily
 - (b) Weekly if dewatering work does not occur daily
 - 9) Temporary active treatment system:
 - (a) Daily if temporary active treatment system activities occur daily
 - (b) Weekly if temporary active treatment system activities do not occur daily
 - 10) Work over water:
 - (a) Daily if work over water occurs daily
 - (b) Weekly if work over water does not occur daily

Deficiencies

Whenever the Contractor or the Engineer identify a deficiency in the implementation of the authorized WPCP or SWPPP, The Contractor shall correct the deficiency:

- (a) Immediately, unless a later date is authorized

(b) Before precipitation occurs

The Agency may correct the deficiency and deduct the cost of correcting the deficiency from payment if the Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation.

7-8.6.2 Best Management Practices (BMPs). *MODIFY to ADD the following:*

BMPs shall be maintained and/or added based on the REAP and any exceedances of Numeric Action Levels (NALs) and Numeric Effluent Limitations (NELs). The Contractor shall make any necessary changes to the SWPPP and implement additional BMPs that will result in effluent levels below that of NALs.

7-8.6.3 Storm Water Pollution Prevention Plan (SWPPP). *DELETE in its entirety and SUBSTITUTE with the following:*

7-8.6.3 Water Pollution Control Plan (WPCP).

7-8.6.3.1 General.

Summary

The Contractor shall prepare a water pollution control plan that includes developing and implementing the WPCP, providing a WPC manager, conducting water pollution control training, and monitoring, inspecting and correcting water pollution control practices.

The Contractor may assign a QSP other than the WPC manager to develop the WPCP.

Submittals

Within 7 days after Contract approval:

- a) The Contractor shall submit two (2) copies of his WPCP for review. The Engineer provides comments and specifies the date when the review stopped if revisions are required.
- b) The Contractor shall resubmit a revised WPCP within 7 days of receiving the Engineer's comments. The Agency's review resumes when the complete WPCP has been resubmitted.
- c) When the Engineer authorizes the WPCP, the Contractor shall submit an electronic copy and 3 printed copies of the authorized WPCP.
- d) If the RWQCB requires review of the authorized WPCP, the Engineer submits the authorized WPCP to the RWQCB for its review and comment.
- e) If the Engineer orders changes to the WPCP based on the RWQCB's comments, the Contractor shall amend the WPCP within 3 business days.

The WPCP must comply with the Caltrans' *Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Plan (WPCP) Preparation Manual* and must:

- a) Show the location of disturbed soil areas, water bodies, and water conveyances
- b) Describe the work involved in the installation, maintenance, repair, and removal of temporary water pollution control practices
- c) Show the locations and types of water pollution control practices that will be used for:
 - 1) Stormwater and nonstormwater in areas outside the job site but related to work activities, including:
 - (a) Staging areas
 - (b) Storage yards
 - (c) Access roads
 - 2) Activities or mobile activities related to all NPDES permits
 - 3) Contractor-support facilities

- d) Show the locations and types of temporary water pollution control practices that will be used in the work for each construction phase
- e) Show the locations and types of water pollution control practices that will be installed permanently under the Contract
- f) Include a schedule showing when:
 - 1) Work activities will be performed that could cause the discharge of pollutants into stormwater
 - 2) Water pollution control practices associated with each construction phase will be implemented
 - 3) Soil stabilization and sediment control practices for disturbed soil areas will be implemented
- g) Include a copy of any permits obtained by the Agency, including Fish & Game permits, US Army Corps of Engineers permits, RWQCB 401 certifications, aerially deposited lead variance from the Department of Toxic Substance Control, aerially deposited lead variance notification, and RWQCB waste discharge requirements for aerially deposited lead reuse

The Contractor shall amend the WPCP whenever:

- a) Changes in work activities could affect the discharge of pollutants
- b) Water pollution control practices are added by Change Order work
- c) Water pollution control practices are added at the Contractor's discretion
- d) Changes in the quantity of disturbed soil are substantial
- e) Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved
- f) Project receives a written notice or order from the RWQCB or any other regulatory agency

The Contractor shall allow the same review time for amendments to the WPCP as for the original WPCP.

7-8.6.3.2 Construction. The Contractor shall manage work activities in a way that reduces the discharge of pollutants to surface waters, groundwater, and separate municipal storm sewer systems.

The Contractor shall monitor and inspect water pollution control practices at the job site. The Contractor shall notify the Engineer within 6 hours whenever any of the following occurs:

- a) The Contractor identifies discharges into receiving waters or drainage systems that are causing or could cause water pollution
- b) The Contractor receives a written notice or order for the project from the RWQCB or any other regulatory agency

The Contractor shall continue WPCP implementation during any suspension of work activities.

The Contractor is responsible for delays and must pay all costs associated with submitting a SWPPP due to his actions that result in one of the following:

- a) 1 or more acres of soil disturbance on projects without an Erosivity Waiver
- b) More than 5 acres of soil disturbance on projects with an Erosivity Waiver
- c) Failure to comply with the schedule for soil disturbing activities for projects with an Erosivity Waiver if the delays void the Erosivity Waiver

7-8.6.3.3 Payment. Payment for WATER POLLUTION CONTROL PROGRAM (WPCP) shall be per the Lump Sum (LS) price bid and shall include full compensation for furnishing

all labor, materials, tools, equipment to perform all the work involved in 7-8.6, including preparing and modifying a WPCP, permitting fees, Agency filing and processing, furnishing, installing, maintaining and removing BMPs, monitoring and reporting, and all incidentals for doing all the work involved as described herein or as otherwise required by the permit process, and shall be included in the contract lump sum price in the bid. No additional compensation shall be allowed therefor.

Payment will be issued by the Agency as follows:

- a) 25% - upon WPCP approval.
- b) 25% - upon installation of project BMPs
- c) 50% - to be paid monthly as a percentage of the total working days expended for monitoring, maintenance, testing, reporting and all other requirements as outlined in these Special Provisions.

7-8.6.4 Dewatering. *MODIFY to ADD the following:*

Submittals

Before the Contractor starts dewatering, he shall submit a dewatering and discharge work plan. The dewatering and discharge work plan must include:

- a) Title sheet and table of contents
- b) Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge point
- c) Estimated schedule for dewatering and discharge start and end dates of intermittent and continuous activities
- d) Discharge alternatives, such as dust control or percolation
- e) Visual monitoring procedures with inspection log
- f) Copy of written approval to discharge into a sanitary sewer system at least 5 business days before starting discharge activities

The Contractor shall submit the following informational submittals:

- a) MSDS at least 5 business days before material is used or stored
- b) Monthly inventory records for material used or stored

The Contractor shall submit written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system.

7-8.6.5 Payment. *DELETE in its entirety and SUBSTITUTE with the following:*

Payment for implementation and maintenance of BMPs and dewatering shall be included in the Contract Unit Price paid for WPCP.

ADD:

7-8.7 Drainage Control. The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete, or other acceptable material will be permitted when necessary. Such dams shall be removed from the site as soon as their use is no longer necessary.

The Contractor shall ensure that storm and drainage water does not pond due to the temporary blockage of existing drainage facilities. To this end, the Contractor shall provide

temporary works that allow for the passage of storm and drainage water in a manner equivalent to the existing drainage system.

No separate payment will be made for any work performed or material used in drainage control. Full compensation for such controls shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

ADD:

7-8.8 Graffiti Control. Throughout all phases of Work, including suspension of Work, and until final acceptance, the Contractor shall keep Work, all equipment, field offices, storage facilities, fences, signs, and other facilities free of graffiti. Within twenty-four (24) hours after notification by the Agency Representative, graffiti shall be water blasted and cleaned to original surface or repainted if previously painted.

No separate payment will be made for any work performed or material used in graffiti control. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. *ADD the following before the 1st paragraph:*

Material shown on the Plans or designated in the Special Provisions which is to be salvaged or used in the reconstructed work and which has been damaged or destroyed as a result of the Contractor's operations, shall be repaired or replaced by the Contractor at his expense.

ADD:

7-9.1 Preservation of Property. The Contractor shall exercise due care to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees and shrubbery that are not to be removed.

All damage done to existing improvements by the Contractor shall be repaired by him to the satisfaction of the Engineer. Where sidewalks, curbs or gutters are to be repaired, the repairs shall be made by removing and replacing the damaged section back to the nearest scoring lines.

All trees and shrubbery that are not to be removed, and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities, and any other improvements of facilities within or adjacent to the work shall be protected from injury or damage, and the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operation, they shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the work or as good as required by the Plans and Specifications if any such objects are a part of the work being performed.

The fact that any such pipe or other underground facility is not shown on the Plans shall not relieve the Contractor of his responsibility under this article. It shall be the Contractor's responsibility to ascertain the existence of any underground improvement or facilities which may be subject to damage by reason of his operations.

In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the work which are in any way affected by the excavations or other operations connected with the performance of the Work.

Whenever any notice is required to be given by the Agency or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.

ADD:

7-9.2 Video Recording and Photographing of Pre-existing Conditions. The Contractor shall video record and photograph pre-existing conditions of the project site prior to any construction activities such as, but not limited to:

- a) Property markers
- b) Right of way and easement conditions
- c) Utility markings and USA markings
- d) Existing property damages
- e) Survey conditions
- f) Pavement conditions, markings, and striping
- g) Adjacent property conditions
- h) Sidewalk, median, curb, and gutter conditions
- i) Safety conditions
- j) Unusual conditions or equipment
- k) Existing landscape conditions (including vegetation and irrigation) along the project limit.

The Contractor shall submit recordings/photographs on CD, DVD or USB media to the Engineer no later than (five) 5 Working Days after Notice to Proceed.

Payment for video recording and photographing services shall be included in the various Bid Items and no additional compensation will be allowed therefor.

7-10.4.1.2 Work Site Safety Official. *MODIFY to ADD the following:*

Failure by the Contractor to provide the required Work Site Safety Official shall be grounds for the Agency to direct the cessation of all work activities and operations at no cost to the Agency until the Contractor is in compliance.

ADD:

7-10.4.1.3 Emergencies. Unusual conditions may arise on the Work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the Work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as his operations make necessary to protect from danger or damage, or loss of life or property, which would result from the interruption or contamination of public water supply, irrigation or other public service, or from failure or partly completed work.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection

of utilities or of adjacent structures or property which may be injured by process of construction on account of such neglect; and whenever in the opinion of the Engineer, immediate action shall be considered necessary in order to protect public or private, personal or property interest, or prevent likely loss of human life or damage on account of the operations under the Contract, then and in that event the Agency may provide suitable protection to said interest by causing such work to be done and material to be furnished as, in the opinion of the Agency Representative may seem reasonable and necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as may be deemed necessary, shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefor, duly certified by the Agency Representative, then said cost and expense will be paid by the Agency and shall thereafter be deducted from any amounts due, or which may become due to the Contractor. Failure of the Agency, however, to take such precautionary measure, shall not relieve the Contractor of his full responsibility for public safety.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the Agency.

7-10.4.2.1 General. *DELETE in its entirety 2nd paragraph and SUBSTITUTE with the following:*

The Contractor shall submit to the Engineer, as a condition of obtaining City issued permits and in advance of excavation, a permit from the Division of Occupational Safety and Health pursuant to Chapter 6 (commencing with Section 6500) of Part 1 of Division 5 of the Labor Code along with a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five (5) feet or more in depth. The plan shall be prepared by a registered civil or structural engineer. As a part of the plan, a notice shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL/OSHA Construction Safety Orders. A copy of the plan and permit shall be submitted to the Engineer.

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the Work, and the Contractor shall fully comply with all local, county, state and federal laws, rules, regulations, and orders relating to safety of the public and workers.

The Contractor shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents from civil or criminal penalties resulting from a failure to comply with applicable safety laws, rules, regulations and orders. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the event of any such failure to comply with applicable safety laws, rules, regulations or orders.

The duty, if any, of the Agency Representative to conduct construction review or inspection of the Contractor's performance is not intended to include review or inspection of the adequacy of the Contractor's safety measures in, on, or near the construction site.

7-10.5.3 Steel Plate Covers. *MODIFY to ADD the following:*

The Contractor shall protect transverse or longitudinal cuts, voids, trenches, holes, and excavations in the right-of-way that cannot be properly completed within one (1) Working

Day by adequately designed barricades and structural steel plates (plates) that will support legal vehicle loads in such a way as to preserve unobstructed traffic flow.

The Contractor shall secure approval, in advance, from Engineer concerning the use of any bridging proposed on the Work.

The Contractor shall adequately shore trenches to support the bridging and traffic loads.

The Contractor shall design plates for HS 20-44 truck loading in accordance with Caltrans Bridge Design Specifications Manual.

For the minimum thickness of plates refer to Table 7-10.5.3(A):

Table 7-10.5.3(A) - Trench Width/Minimum Plate Thickness

Trench Width	Minimum Plate Thickness
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 1/4"

For spans greater than 5'-3", submit a structural design prepared by a California Registered Civil Engineer to the Engineer.

The surface of the plates shall be skid-resistant with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342.

The plates shall extend a minimum 12" beyond the edges of the trench.

Plates must provide complete coverage to prevent any person, bicycle, motorcycle or motor vehicle from being endangered due to plate movement causing separations or gaps.

Install and secure plates against movement or displacement by using adjustable cleats, shims, welding, or other devices in a manner that will minimize noise.

The Contractor shall Install plates as follows:

Mill the pavement to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Alternative installation method may be submitted in accordance with 2-5.3, "Submittals" for the Engineer's approval.

The Contractor is responsible for maintenance of the plates and shoring, or any other approved device used to secure the plates. The Contractor shall immediately mobilize necessary personnel and equipment after being notified by the Agency Representative, the Agency Code Enforcement or Police Department of a repair needed e.g., plate movement, noise, anchors, and asphalt ramps. Failure to respond to the emergency request within 2 hours will be grounds for Agency to perform necessary repairs that will be invoiced at actual cost including overhead or \$500 per incident, whichever is greater.

When plates are removed, the Contractor shall repair any damage to the pavement with fine graded asphalt concrete mix or slurry seal satisfactory to the Engineer.

Payment for Steel Plate Covers is included in the various bid items of work.

7-11 PATENT FEES AND ROYALTIES. DELETE in its entirety and SUBSTITUTE with the following:

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work and shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents from all claims, suits or actions of every nature for or on account of the use of any patented materials, equipment devices, or

processes. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any such claim, suit or action.

7-13 LAWS TO BE OBSERVED. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall keep itself fully informed of all existing and future State and National laws and County and Municipal ordinances and regulations which in any manner affect those engaged or employed in the Work or the materials used in the Work or which in any way affect the conduct of the Work and of all such order and decrees of bodies or tribunals having any jurisdiction or authority in the Plans, Specifications, or Contract for the Work in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same to the Agency Representative in writing.

The Contractor shall at all times observe and comply with and shall cause all its agents, employees, and subcontractors to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees even though such requirements may not be specifically mentioned in the specifications or shown on the Plans, and shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by itself, its employees, its agents, or its subcontractors. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any such claim or liability.

As a material part of this Contract, Contractor's and subcontractors' owners and employees agree to be bound by and adhere to the Federal Department of Transportation (DOT) regulations found in Title 49 CFR 382. All Contractor's and subcontractors' owners and employees who are required to hold commercial licenses and/or who are in safety sensitive positions shall be subject to the provisions of the DOT regulations.

ADD:

7-14.1 Property Rights in Materials. Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the Work or the soil, or after payment has been made for materials delivered to the site of the Work, or stored subject to or under the control of the Agency.

ADD:

7-14.2 Warranty of Title. No materials, supplies or equipment for the Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies, and equipment installed and incorporated in the Work and agrees upon completion of all Work to deliver the premises together with all improvements and appurtenances constructed or placed thereon by him to the Agency free from any claims, liens, encumbrances, or charges and further agrees that neither he nor any persons, firm, or corporation furnishing any material or labor for any work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this article,

however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the Agency.

The provisions of this subsection shall be physically inserted in all subcontracts and material contracts and notices of its provision shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

ADD:

7-15 CONTRACTOR'S RESPONSIBILITY FOR THE WORK. Until Acceptance of the Work, the Contractor shall have the responsibility, charge and care of the Work and of the materials to be used therein (including materials for which it has received partial payment or materials which have been furnished by the Agency) and shall bear the risk of injury, loss or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work.

The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the material occasioned by any cause before its completion and acceptance and shall bear the expense thereof. Where necessary to protect the work or materials from damage, the Contractor shall at his expense provide suitable drainage and erect such temporary structures as are necessary to protect the work or materials from damage. The suspension of the work from any cause whatever shall not relieve the Contractor of his responsibility for the work and materials as herein specified. If ordered by the Agency Representative, the Contractor shall at his expense properly store materials which have been partially paid for by the Agency or which have been furnished by the Agency. Such storage by the Contractor shall be on behalf of the Agency, the Agency shall at all times be entitled to the possession of such materials, and the Contractor shall promptly return the same to the site of the work when requested. The Contractor shall not dispose of any of the materials so stored, except on written authorization from the Agency.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act as though instructed to do so by the Agency.

ADD:

7-16 Project Record Documents.

7-16.1 Maintenance of Documents and Samples. The Contractor shall maintain one record copy of:

- a) Contract Drawings
- b) Specifications
- c) Addenda
- d) Change Orders and Other Modifications to the Contract
- e) Reviewed Shop Drawings, Product Data, and Samples
- f) Field Test Records
- g) Construction Schedules
- h) Manufacturer's Certificates

The Contractor shall maintain documents in clean, dry, legible condition and not used for construction purposes.

The Contractor shall keep Record Documents and samples accessible for inspection by Agency Representative. Applications for partial payment will not be approved if the Record Documents are not kept current. The Agency Representative must so verify prior to submittal of each Application for Payment.

ADD:

7-16.2 Recording. The Contractor shall record changes to the plans and discoveries of buried objects at the Work on Record Documents with red ball-point pen, label each Document "PROJECT RECORD" in large printed letters, record information concurrently with construction progress, not conceal any work until required information is recorded and legibly mark each item on Contract Drawings and Shop Drawings to record actual construction, including:

- a) Measured depths of elements in relation to fixed datum point
- b) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements
- c) Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction
- d) Field changes of dimension and detail
- e) Changes made by Contract modifications
- f) Details not on original Contract Drawings
- g) Previously unknown buried objects

The Contractor shall legibly mark each item to record actual construction, including:

- a) Manufacturer, Trade Name, and Catalog Number of each product actually installed, particularly optional items and substitute items
- b) Changes made by Addenda or modifications

The Contractor shall maintain other documents per requirements of individual specifications sections.

7-16.3 Submittals. At Contract closeout the Contractor shall deliver Record Documents and samples as specified in 7-16.1. Request for final payment will not be approved until all Record Documents have been delivered.

The submittals shall be transmitted with cover letter with signature of Contractor or authorized representative, listing date, project title and number and number and title of each Record document.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

DELETE in its entirety, not part of this project.

SECTION 9 - MEASUREMENT AND PAYMENT

REVISE as follows:

9-2 LUMP SUM WORK. *DELETE 2nd paragraph in its entirety.*

ADD:

9-2.1 Detailed Schedule. The Contractor shall furnish the Agency a cost break-down for all contract lump sum items. Cost break-down tables shall be submitted to the Agency Representative for acceptance within fifteen (15) days after award of Contract. Cost break-down tables will be approved, in writing, by the Agency Representative before any partial payment will be made for the applicable items involved.

The Contractor shall determine the quantities required to complete the Work shown on the Plans. The quantities and their values shall be included in the cost break-downs submitted to the Agency Representative for approval. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval.

The sum of the amounts for the line items of work listed in each cost break-down table for each lump sum item shall be equal to the contract lump sum price bid. Overhead and profit shall be included in each individual line item of work listed in a cost break-down table.

No adjustment in compensation will be made in the contract lump sum prices due to differences between the quantities shown in the cost break-downs furnished by the Contractor and the quantities required to complete the Work as shown on the plans and as specified in the Special Provisions.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the Work and as the basis for calculating an adjustment in compensation for the contract lump sum items due to changes in line items of work ordered by the Engineer. When the total of ordered changes to line items of work increases or decreases the lump sum price bid by more than twenty-five percent, the adjustment in compensation for the applicable lump sum item will be determined in the same manner specified for increases and decreases in the total pay quantity of an item of work in Section 3 of the Standard Specifications and the Special Provisions.

9-3 PAYMENT.

9-3.1 General. *ADD the following at the end of the 2nd paragraph:*

The cost of items of work not listed in the "Schedule of Work and Prices" in the Bidders Proposal shall be considered to be included in the cost of the other work that is listed and no additional compensation will be allowed therefor.

When an item of work is designated as (F) or (S-F) in the "Schedule of Work and Prices", the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity

of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions. If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as (F) or (S-F) in the "Schedule of Work and Prices" shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the Plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the "Schedule of Work and Prices" for a final pay item and the quantity or summation of quantities for the same item shown on the Plans, payment will be based on the quantity shown in the "Schedule of Work and Prices."

ADD:

9-3.1.1 Application for Payment. The Contractor shall use the City of Irvine Certified Invoice for Progress Payment Form; furnished to the Contractor.

The Contractor shall type the required information, follow the schedule of work and bid prices in accepted Bidder's proposal for unit price contract, execute certification by signature of an authorized officer, use data on accepted Schedule of Values for lump sum work, provide dollar value in each column for each line item for portion of work performed, list each authorized Change Order number and dollar amount and adjusted Contract Price, and obtain the Agency Representative concurrence on invoiced amounts prior to submittal for payment.

The Contractor shall follow the following submittal procedures: Submit original and one (1) copy of each Application for Payment at times stipulated in 9-3.2; submit under transmittal letter; include submittal date, project title and number and submit updated Progress Schedule with Application for verification of progress. Incomplete application for payment will be rejected.

When Agency Representative requires substantiating information, the Contractor shall submit data justifying line item amounts in question.

The Contractor shall provide one copy of data with cover letter for each copy of submittal, show application number and date, and line item by number and description.

9-3.2 Partial and Final Payment. *DELETE in their entirety 1st and 2nd paragraphs and SUBSTITUTE with the following:*

Payment for services will be made monthly on approved invoices, with payment terms of net thirty (30) days upon receipt of invoice. The Contractor shall submit invoices within fifteen (15) days from the end of each month on the form (Certified Invoice For Progress Payment) provided by the Agency. This estimate shall include the value of the total amount of the work completed by the Contractor during the calendar month previous to that in which the estimate is made.

When the Work has been completed to the satisfaction of the Engineer, the Contractor shall make a final estimate of the total amount of work done thereunder and the amount to be paid therefor under the terms of the Contract and shall certify to the Agency the amount of the final estimate. If the Agency finds the Work has been completed according to the Contract, the Agency will accept the work, will file a notice of completion, and will pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be retained under the provisions of the Contract and upon receiving signed unconditional releases upon final payment from all subcontractors and material suppliers. All prior progress estimates and payments shall be subject to correction in the final estimate and payment. The project retention release will not be due and payable until the expiration of the 60 days from the date of filing a notice of completion of the Work by the Agency.

Interest penalties are not required on payment delays due to disagreement between the Agency and Contractor over the payment amount or other issues involving contract compliance.

It is mutually agreed between the parties to the Contract that no certificate given or payment made under the Contract shall be conclusive evidence of performance of the Contract and no payment shall be construed to be an acceptance of any defective work or improper materials.

The Contractor further agrees that the payment and acceptance of the final amount due under the Contract shall release the Agency, the Agency Representative, the Engineer, and their consultants from any and all claims or liability arising out of the Contract.

ADD:

9-3.2.1 Agency's Right to Withhold Certain Amounts and Make Application

Thereof. In addition to the amount which the Agency may retain under the above article on progress payments, the Agency may withhold a sufficient amount or amounts from any payment otherwise due to the Contractor as in the Agency's judgment may be necessary to cover:

- a) Payments which may be past due and payable for just claims against the Contractor or any subcontractors for labor or materials furnished in or about the performance of the Work on the project under this Contract.
- b) Estimated or actual costs for correcting defective work not remedied.
- c) Amounts claimed by the Agency as forfeiture due to delay or other offsets.
- d) Any other amounts the Agency is authorized to withhold under the Contract Documents or under applicable law.

The Agency may apply such withheld amount or amounts to the payment of such claims in its discretion. In so doing, the Agency shall be deemed the agent of the Contractor and any payments so made by the Agency shall be considered as a payment made under the Contract by the Agency to the Contractor, and the Agency shall not be liable to the

Contractor for such payment made in good faith. Such payments may be made without prior judicial determination of the claim or claims. The Agency will render to the Contractor a prior account of such funds disbursed in behalf of the Contractor.

ADD:

9-3.2.2 Substitution of Securities. Upon the Contractor's request, the Agency will make payment of funds withheld from progress payments pursuant to the requirements of Public Contract Code Section 22300 if the Contractor deposits in escrow with a bank acceptable to the Agency, securities eligible for the investment of State funds under Government Code Section 16430 or bank or savings and loan certificates of deposit, upon the following conditions:

- a) The Contractor shall bear the expense of the Agency and the Escrow Agent in connection with the escrow deposit made.
- b) Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this section.
- c) The Contractor shall enter into an escrow agreement satisfactory to the Agency, such agreement shall include provisions governing inter alia;
 - 1) The amount of securities to be deposited,
 - 2) The providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited,
 - 3) Conversion to cash to provide funds to meet defaults by the Contractor including, but not limited to, termination of the Contractor's control over the Work, stop notices filed pursuant to law, assessment of liquidated damages or other amounts to be kept or retained under the provisions of the Contract,
 - 4) Decrease in value of securities on deposit, and
 - 5) The termination of the escrow upon completion of the Contract.
- d) The Contractor shall obtain the written consent of the surety of such agreement.

9-3.4 Mobilization *DELETE in its entirety and SUBSTITUTE with the following:*

9-3.4.1 General. Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials and incidentals to the project site necessary for work on the project and for all other work and operations which must be performed or costs incurred including bonds, insurance, and financing prior to beginning work on the various contract items on the project site.

Mobilization shall also include the cost, time and labor to move the necessary construction equipment to and from the job site, supervisory time on the job by the Contractor's personnel to keep the construction site in a safe condition and all other related work as required for all non-working days during the course of construction. Contractor is responsible for securing an adequate storage site for equipment and materials.

Mobilization shall also include the cost, time, tools, software and labor necessary to develop, submit, revise and implement the Project Construction Schedule in accordance with Section 6 – Prosecution, Progress, and Acceptance of the Work as required by the Standard Specifications and these Special Provisions.

The Contractor shall have on the work site at all times, as its agent, a competent English speaking superintendent capable of reading and thoroughly understanding the

plans, specifications, other related documents, and directions from Owner's Representative.

The lump sum price for mobilization shall include all mobilization efforts necessary for all base bid items and alternate bid items, if awarded. Additional mobilization costs will not be paid for award of Alternate Bid Items quantity overruns for base bid work.

9-3.4.2 Measurement and Payment.

Payment for **Mobilization** shall be per the **Lump-Sum (LS)** price bid and shall include all costs for obtaining and paying for all permits and business licenses as required from the City of Irvine, State of California and other agencies. The City of Irvine will waive its permit fee; however permit fees of all other agencies shall be the sole responsibility of the Contractor. The Contractor shall comply with the requirements specified by each license or permit.

Progress payments for this item shall be paid to the Contractor in accordance with the completion percentage of the project as determined by the Engineer, and shall include the costs of such mobilization and administration for the entire contract period including CPM progress schedule updates as specified in these specifications. No payment for Mobilization will be made until the Contractor's Construction Schedule has been submitted, reviewed and accepted and is current.

ADD:

9-4 RESOLUTION OF CONSTRUCTION CLAIMS. Any claims submitted by the Contractor against the Agency for Work covered by this Contract in the amount of \$375,000 or less shall be subject to the procedures specified in Public Contract Code § 20104, *et seq.*

ADD:

9-5 PROMPT PAYMENT. In addition to requirements specified elsewhere, the following shall also apply: Subsection (f) of Section 20104.50 of the Public Contract Code, Article 1.7 of Part 3 of Division 2.

ARTICLE 1.7

§ 20104.50 Timely progress payments; legislative intent; interest; payment requests:

- a) It is the intent of the Legislature in enacting this section to require all local governments to pay their Contractors on time so that these Contractors can meet their obligations. In requiring prompt payment by all local governments, the Legislature hereby finds and declares that the prompt payment of outstanding receipts is not merely a municipal affair, but is instead a matter of statewide concern.
- b) It is the intent of the Legislature in enacting this article to fully occupy the field of public policy relating to the prompt payment of local governments' outstanding receipts. The Legislature finds and declares that all government officials, including those in local government, must set a standard of prompt payment that any business in the private sector which may contract for services should look towards for guidance.

- c) Any local agency which fails to make any progress payment within 30 days after receipt of an undisputed and properly submitted payment request from a contractor on a construction contract shall pay interest to the contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.
- d) Upon receipt of a payment request, each local agency shall act in accordance with both of the following:
 - 1) Each payment request shall be reviewed by the local agency as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.
 - 2) Any payment request determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven days, after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.
- e) The number of days available to a local agency to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which a local agency exceeds the seven-day return requirement set forth in paragraph (2) of subsection (c).
- f) For purposes of this article:
 - 1) A “local agency” includes, but is not limited to, a city, including a charter city, a county, and a city and county, and is any public entity subject to this part.
 - 2) A “progress payment” includes all payments due Contractors, except that portion of the final payment designated by the Contract as retention earnings.
 - 3) A payment request shall be considered properly executed if funds are available for payment for the payment request, and payment is not delayed due to an audit inquiry by the financial officer of the local agency.
- g) Each local agency shall require that this article, or a summary thereof, be set forth in the terms of any contract subject to this article.

TECHNICAL PROVISIONS

The following parts and sections of the Standard Specifications for Public Works Construction, 2015 edition, are amended by these Special Provisions.

PART 2 – CONSTRUCTION MATERIALS

SECTION 201 – Concrete, Mortar, and Related Materials

SECTION 203 – Bituminous Materials

SECTION 214 – Traffic Striping, Curb and Pavement Markings, and Pavement Markers

PART 3 – CONSTRUCTION METHODS

SECTION 300 – Earthwork

SECTION 302 – Roadway Surfacing

SECTION 303 – Concrete and Masonry Construction

SECTION 314 – Traffic Striping, Curb and Pavement Markings, and Pavement Markers

PART 6 – TEMPORARY TRAFFIC CONTROL

SECTION 600 – Access

SECTION 601 – Work Area Traffic Control

PART 7 – STREET LIGHTING AND TRAFFIC SIGNAL SYSTEMS

SECTION 701 – Construction

SECTION 201 – CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE. *REVISE as follows:*

201-1.1 Requirements. *REVISE as follows:*

201-1.1.2 Concrete Specified by Class and Alternate Class. *REVISE the Concrete Class for various items in Table 201-1.1.2(A) as indicated below:*

Sidewalk and other Miscellaneous 4" Thick PCC – Concrete Class 520-C-2500, Maximum Slump 4"

Access Ramp – Concrete Class 520-C-2500, Maximum Slump 4"

Curb, Gutter, Cross Gutter, Spandrels, Drive Approach/Driveway, Aprons and all Miscellaneous 8" Thick PCC – Concrete Class 560-C-3250, Maximum Slump 4"

201-1.2 Materials. *REVISE as follows:*

201-1.2.1 Cement. *DELETE in its entirety and SUBSTITUTE with the following:*

Only Type V cement shall be used for all PCC improvements on this project.

SECTION 203 – BITUMINOUS MATERIALS

203-5 SLURRY SEAL. *REVISE as follows:*

203-5.1 General. *DELETE in its entirety and SUBSTITUTE with the following:*

All slurry seal used on this project shall be either Type I Emulsion Aggregate Slurry (Type I-CQS-1h-EAS) conforming to 203-5.4 or Type II Polymer Modified Emulsion-Reclaimed Asphalt Pavement Aggregate Slurry Seal (Type II-PME-RAP Slurry or Type II-PME-RAPAS) conforming to 203-5.6 and all other requirements of these Special Provisions.

203-5.2 Mix Design. *After the last paragraph, ADD the following:*

The tests and mix design shall be performed by a laboratory capable of performing the applicable ASTM tests. The original laboratory report shall be signed by the laboratory that performed the tests/mix design and shall show the results of the tests on individual materials, comparing the test results to those required by the applicable ASTM tests. The laboratory shall report the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect). The report shall clearly show the proportions of aggregate, filler (as determined from the tests, minimum and maximum), water (minimum and maximum), the design proportions of each component including additives, all test results used in producing the mix design and asphalt solids content based on the dry weight of aggregate and set-control agent usage. The Contractor shall submit for City approval the source of the rock and the gradation.

Prior to the time of delivery of each shipment of emulsified asphalt, the Contractor shall submit to the City test reports and certifications in accordance with Section 203-1.3 of the Standard Specifications. At the time of delivery of each shipment of aggregate, he shall also submit test reports from his vendors. No material shall be utilized until the certified reports have been checked by the City. Delays by the Contractor in furnishing the reports will not be grounds for any extension of contract time.

The Agency will require up to 10 working days, from the time of receipt of the mix design, for evaluation of the material characteristics. This mix design will be used for the trial batches and test strips as described in Section 302-4.4.

203-5.4 Emulsion–Aggregate Slurry. *Revise as follows:*

203-5.4.2.2 Emulsified Asphalt. *After the last paragraph, ADD the following:*

Emulsified asphalt for Type I EAS shall be cationic and shall be designated CQS-1h and shall conform to the requirements of Section 203-3.

Emulsified asphalt shall be latex modified; latex shall be Ultrapave UP-65K by the Textile Rubber & Chemical Co., Inc., or approved equal. The latex shall be added to the emulsified asphalt at the asphalt plant at the rate of 3% by volume. Field addition of polymer/latex shall not be allowed.

203-5.6 Polymer Modified Emulsion-Reclaimed Asphalt Pavement Aggregate Slurry (PME-RAPAS). ADD the following New Subsection:

203-5.6.1 General.

PME-RAPAS shall consist of the mixing, spreading and application of a stable mixture of polymer modified emulsified asphalt, reclaimed asphalt pavement aggregate, water, and set control agents.

203-5.6.2 Materials.

203-5.6.2.1 Reclaimed Asphalt Pavement (RAP) Aggregate.

203-5.6.2.1.1 General.

RAP used to produce aggregate for the PME-RAPAS shall conform to 203-7.2.2, except for sand equivalent, and the requirements shown in Table 203-5.6.2.1.1 (A).

TABLE 203-5.6.2.1.1 (A)

Tests	Test Method	Requirements
Percentage Wear, 500 Revolutions ¹	ASTM C131	35% Maximum
Sand Equivalent	ASTM D2419	55 Minimum
Soundness (5 Cycles) ¹	ASTM C88	15% Maximum
Durability	CTM 229	55 Minimum

1. On RAP retained on No. 4 sieve.

203-5.6.2.1.2 Grading.

The grading of the combined RAP aggregates shall conform to the requirements shown in Table 203-5.6.2.1.2 (A).

TABLE 203-5.6.2.1.2 (A)

Sieve Size	Un-Extracted RAP Aggregate	Extracted RAP Aggregate (ASTM D1856)
	% of Combine Aggregate Passing Sieves (ASTM C136)	% of Combine Aggregate Passing Sieves (ASTM C136)
3/8" (9.5 mm)	100	100
No. 4 (4.75 mm)	90 – 100	90 – 100
No. 8 (2.36 mm)	60 – 90	65 – 90
No. 16 (1.18 mm)	35 – 60	45 – 70
No. 30 (600 µm)	23 – 45	30 – 50
No. 50 (300 µm)	12 – 30	18 – 36
No. 100 (150 µm)	5 – 20	10 – 24
No. 200 (75 µm)	0.5 – 10	5 – 15
Residual Asphalt Content ¹	-----	6.5% Minimum ²

1. Determined by Binder Ignition ASTM 6307

2. Percentage based on dry weight of aggregate.

203-5.6.2.2 Polymer Modified Emulsified Asphalt (PME).

PME shall be grade PM-CQS-1h. Emulsified asphalt for the PME shall be cationic and shall be designated CQS-1h and shall conform to the requirements of Section 203-3.

Polymer for the PME shall be Ultrapave UP-65K Latex by the Textile Rubber & Chemical Co., Inc., or approved equal. The latex shall be added to the emulsified asphalt at the asphalt plant at the rate of 3% by volume. Field addition of polymer/latex shall not be allowed. The emulsion producer shall furnish a Certificate of Compliance conforming to 4-1.5 for each load of PME delivered to the Work site.

The percentage of emulsified asphalt and residual asphalt content shall conform to the requirements shown in Table 203-5.6.2.2 (A).

TABLE 203-5.6.2.2 (A)

Tests	Test Method	Requirements
Emulsified Asphalt added to RAP %, by weight of dry RAP aggregate	-----	9.0% – 14.0%
Residual Asphalt Content of Slurry Mix %, by weight of dry RAP aggregate	ASTM D6307 ¹ or CTM 382 ¹	11.0% Minimum

1. Sample size shall be 500g minimum.

203-5.6.2.3 Water.

Water shall conform to Section 203-3.2.

203-5.6.2.4 Set Control Agents.

Set Control Agents shall be either Type II or Type V Portland Cement conforming to Section 201-1.2.1, Aluminum Sulfate, or other material approved by the Engineer.

203-5.6.3 Mixing.

Mixing, spreading and application of PME-RAPAS shall conform to Section 302-4.

203-6 ASPHALT CONCRETE. REVISE as follows:

203-6.1 General. After the last paragraph, ADD the following:

Asphalt Surface Course shall be Fiber Reinforced Type III C3-PG 64-10. The composition and grading shall conform to the requirements of Table 203-6.5.4(A). The asphalt binder shall comply with the Performance Grade specifications of section 203-1.

Fiber Reinforcement shall be FORTA-FI, or Agency approved equal. The fiber-reinforced asphalt concrete pavement shall include the submittal of a manufacturer's Certificate of Compliance stating the material authenticity and properties for review and acceptance by the Engineer before using the material; store fibers in a dry environment and do not allow to be in contact with moisture; add FORTA-FI asphalt reinforcement fibers into the asphalt concrete at a rate of 1 pound per ton of asphalt in accordance with the manufacturer's recommendations; add fibers at the plant either manually or

through specialized equipment that can accurately proportion or meter by weight; add the proper amount of fiber per batch for batch plants, or add fiber continuously and in a steady uniform manner for drum plants. When a batch plant is used, add fiber to the aggregate in the weigh hopper, and increase both dry and wet mixing times and ensure that the fiber is uniformly distributed before the injection of asphalt cement into the mixture. When a drum plant is used, inject fibers through the RAP collar by placing 1-pound bags of fibers on the RAP belt or by feeding them through a blower tube; feed fibers at a rate dictated by the rate the plant is producing asphalt mix. See Appendix E for additional manufacturer specifications and product information.

SECTION 214 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

214-1 GENERAL. *After the last paragraph, ADD the following:*

All Paint, Beads, Raised Pavement Markers, and other materials used in painting traffic stripes and markings shall conform to the requirements of the 2015 Caltrans State Standard Specifications, Section 81, Section 84 and all other applicable sections. Certificates of Compliance for each material shall be submitted prior to use on this contract.

214-6 PAVEMENT MARKERS. *Revise as follows:*

214-6.1 Types of Markers. *After the last paragraph, ADD the following:*

Reflective pavement markers shall conform to the following:

- a) Type B, 2-Way Clear Reflective Markers shall be Model 290-2W as manufactured by 3M Company or approved equal.
- b) Type C, 2-Way Red-Clear Reflective Markers shall be Model 290-WR as manufactured by 3M Company or approved equal.
- c) Type D, 2-Way Yellow Reflective Markers shall be Model 291-2Y as manufactured by 3M Company or approved equal.
- d) Type G, 1-Way Clear Reflective Markers shall be Model 290-W as manufactured by 3M Company or approved equal.
- e) Type H, 1-Way Yellow Reflective Markers shall be Model 291-Y as manufactured by 3M Company or approved equal.
- f) Type I, Blue - 2-Way Blue Reflective Markers shall be Model 295-2B as manufactured by 3M Company or approved equal.

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING. *Revise as follows:*

300-1.3.2 Requirements. *After the last paragraph of part c), ADD the following:*

The City's Representative shall mark the locations and limits of removals at the various project sites. Contractor shall not allow any open excavations over the weekend.

Removal of AC pavement adjacent to all PCC removals shall be at a minimum of 1-foot wide and up to a maximum of 4-foot wide, as determined by the City Representative. The purpose of this requirement is to allow for a greater removal area adjacent to new PCC ramps to be constructed.

300-1.3.3 Root Pruning Requirements. *ADD the following Subsection:*

300-1.3.3 Root Pruning Requirements.

Upon removal of concrete improvements, where tree roots are present within 12" of the new concrete to be placed, the Contractor shall immediately notify the City Representative of the presence of tree roots.

Upon notification, the City shall coordinate to have the tree inspected by a Certified Arborist to determine whether the tree roots can be safely pruned without jeopardizing the health of the tree.

Upon approval by the City's Certified Arborist, the Contractor shall be responsible for performing root pruning to a depth of 12 inches below the PCC improvements and directly adjacent to the area for removal. All roots shall be cleanly cut to encourage good callus tissue and pruned back to the next root node.

Damage to irrigation systems or other improvements caused by root pruning or demolition shall be completely repaired prior to placement of new concrete. All costs for repairing damages shall be the sole responsibility of the Contractor and no separate compensation will be allowed.

300-1.4 Payment. *DELETE in its entirety and SUBSTITUTE with the following:*

Full Compensation for Clearing and Grubbing and for conforming to all requirements of Section 300 shall be considered as included in the unit prices bid for other items of work and no separate compensation shall be allowed therefor. Full Compensation shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals and for doing all the work as specified in the Standard Specifications and these Special Provisions, and as directed by the City Representative.

SECTION 302 – ROADWAY SURFACING

302-1 COLD MILLING OF EXISTING PAVEMENT. *REVISE as follows:*

302-1.1 General. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall cold mill existing pavement as shown on the Plans or Project Details and as specified in the Special Provisions. The type of pavement and depth to be cold milled shall be as shown on the Plans and as specified in the Special Provisions. The surface after cold milling shall be uniformly grooved or ridged, unless otherwise authorized by the Engineer. The outside lines of the milled pavement shall be neat and uniform.

The presence of pavement fabric or rubberized materials (ARHM, REAS, ARAM's, etc.) within the existing pavement to be cold milled is not typical, however these materials may be present in various locations. Presence of these materials within the pavement section shall not be considered a changed condition and shall not be cause for a change order for additional compensation.

The milled pavement shall be true to grade and cross section. When the straightedge specified in Section 302-5.6.2 is laid on the finished surface, the surface shall not vary from the edge of the straightedge more than 3/8 inch at any point, except at intersections or at changes of grade. Any areas that are not within tolerance shall be brought to grade within 1 working day following initial cold milling.

Cold milling operations shall be performed without damage to the remaining pavement. Whenever cold milling is adjacent to Portland cement concrete curbs, gutters, pavements or other PCC improvements, the Contractor shall protect these improvements from damage. Any PCC improvement damaged during cold milling operations shall be repaired or replaced as directed by the Engineer at the Contractor's sole expense. Replaced sections of PCC improvements shall be a minimum of 5 feet in length or to the next joint.

The contractor shall scan the work area using a metal detector of adequate strength prior to any saw cutting, excavation or cold milling of the existing pavement. Contractor shall be responsible for locating and protecting manhole, water valve, utility access frames and covers or other metal appurtenances buried below the existing pavement surface whether shown on the plans or not.

The Contractor shall provide access and detour for pedestrian facilities and bike lanes at all times when cold milling.

The Contractor is to notify the Engineer at least two (2) working days prior to and immediately after the cold mill operations so that observations and measurements may be made of areas before the placement of permanent asphalt.

302-1.1.1 Cold Milling for AC Repairs Prior to Slurry Seal.

Contractor shall perform AC Repairs to various roadways, parking lots and bike trails

identified to receive slurry seal. AC Repairs shall be completed prior to slurry seal. The City will submit to the Contractor a list of approximate locations and areas to be repaired. The City Representative shall mark these locations in the field with paint.

Each repair location shall have a minimum area of 100 SF and minimum width of 5 feet.

Cold Milling of the existing AC pavement for Road Repairs shall be at a consistent depth of 2 inches (0.17 feet) or as directed by the Engineer. When necessary, the City may direct the Contractor to Cold Mill deeper than 2 inches. If such request is made, the Contractor shall perform the Cold Milling to the required depth and the area of Cold Milling to be paid for shall be measured as the surface area multiplied by the required depth (inches) divided by 2 inches. (i.e. Measurement = Area x Depth / 2 inches).

Contractor shall perform asphalt concrete paving required for AC Repairs Prior to Slurry Seal within the same work day as the cold milling. Paving shall be in accordance with Section 302-5 and these Special Provisions.

302-1.1.2 Cold Milling Prior to AC Overlay.

Cold milling of the existing AC pavement in preparation for 2" Asphalt Concrete Overlay (or other AC lift thickness as required) shall be at either a constant depth up to 2" below edge of gutter per Project Detail No. 1 included in Appendix D, or at a variable depth, tapering from 1/8" deep at 10 feet from edge of gutter to 2" deep below edge of gutter, including cul-de-sacs, per Project Detail No. 2 included in Appendix D, and as directed by the City Representative.

For street AC overlay, variable depth cold milling will typically be required, however, at various locations, the City Representative may direct the contractor to perform consistent depth cold milling in lieu of variable depth cold milling in preparation of street AC overlay at the City's sole discretion. If so requested, Consistent Depth Cold Milling when performed for 2" Asphalt Concrete Overlay shall be measured and paid as 2" Cold Milling and no additional compensation shall be allowed.

During cold milling operations, the Contractor shall be responsible for removal of all previous slurry seal or other materials on the existing gutter or edge of pavement adjacent to the cold milled surface prior to AC overlay. Method of slurry removal shall be approved by the City Representative and all such work shall be considered as included in the unit price for Cold Milling and no additional compensation shall be allowed therefore.

Cold milling shall not be performed more than three (3) days before paving operations.

In accordance with Section 302-5.8.4, the Contractor shall be required to lower all manholes and other surface utility covers for pavement sections to be cold milled and paved in accordance with Project Detail No. 1 (2" Cold Milling – Consistent Depth) prior to beginning any cold milling operations for that street.

302-1.1.3 Temporary Traffic Striping Required After Cold Milling.

Whenever Cold Milling of the existing pavement results in the obliteration of traffic striping, lane lines, crosswalks, legends or other permanent traffic control installations,

the contractor shall be required to provide temporary traffic striping following cold milling operations. Temporary traffic striping shall be painted and shall delineate all traffic lane lines, turn pocket lanes, traffic arrows, center-lines, crosswalks and all other traffic control installations necessary to provide a safe travelling environment for the general public during the course of construction.

Temporary traffic striping shall be required following 2" Consistent Depth Cold Milling per Project Detail No. 1 on any street with existing traffic striping/markings and may be required, if necessary, following Variable Depth Cold Milling per Project Detail No. 2.

All temporary striping required after cold milling operations shall be painted and shall be installed per City Standards within the same work day as cold milling operations. The pavement shall be swept clean and shall be free of cold milling debris prior to installation and painting of temporary traffic striping.

All required temporary traffic striping shall be considered paid for under the cold milling bid item for which it is required and no additional compensation will be allowed.

302-1.1.4 Micro-Milling.

302-1.1.4.1 General.

Micro-milling shall consist of the cold milling of existing asphalt concrete pavement with a milling machine equipped with a cutting drum specifically designed and constructed for micro-milling. The resulting pavement surface shall be suitable for use as the final pavement driving surface without a surface treatment.

302-1.1.4.2 Micro-Milling Machines.

Milling machines shall conform to 302-1.2 and as follows:

- h) Be equipped with a micro-milling drum with tungsten-carbide-tipped cutting teeth spaced no greater than 3/16 inch apart on center. The configuration of the teeth shall be such that the deviation in elevation between any 2 teeth does not exceed 1/16 inch.
- i) Be capable of removing asphalt concrete pavement to a tolerance of $\pm 1/16$ inch.
- j) Be equipped with an automatic grade control system operating in "contour" mode. The system shall be either:
 - 1) A 30-foot-long paving machine ski with spring-loaded feet attached to the bottom on not more than 1.5-foot increments, such that the feet rise and fall over small irregularities on the pavement surface. The upper part of the ski shall be one piece and of such construction that it will not flex or bend by more than 1/8 inch at either end when supported off the grade by a fixture located at its center of gravity. The grade control system shall be referenced off the center of the ski, with skis mounted on each side of the milling machine such that the ski's longitudinal center is even with the center of the milling machine's cutting drum. Or,

- 2) A sonic averaging system with automated controls. Each corner of the the milling machine shall be equipped with sonic grade averaging and slope sensors. The system shall feature plug-in connections, internal cable routing, 2 dual control boxes for ground personnel each capable of controlling each side of the milling machine, and a separate control box for the operator.

302-1.1.4.3 Micro-Milling Operations.

Contractor shall Micro-Mill the edges of the existing AC pavement adjacent to the parkway gutter prior to a roadway being slurry sealed. Micro-Milling of the existing AC pavement in preparation for Slurry Seal will be 5-foot wide on average, or as directed by the City Representative and shall be at a straight grade. Elevation of the Micro-Milled AC surface shall be 1/8" deep at 5 feet from edge of gutter and shall be flush with the adjacent edge of gutter, including all curb returns and cul-de-sacs.

When necessary, milling operations shall progress from the low side of each roadway barrel or lane and progress towards the high side. Each successive pass of the milling machine shall meet the line and grade of the previous pass. The speed of the milling machine shall be maintained at a rate which results in a uniform pavement texture.

Micro-milling shall result in a grid-patterned textured pavement surface with longitudinal ridges approximately the same distance apart as the cutting teeth. The ridges shall be consistent in depth, width, and profile. The distance between the top of each ridge and the adjacent valleys shall not exceed 1/8 inch.

The resulting profile and cross slope of the milled pavement surface shall be such that a 10-foot long straightedge laid perpendicular or parallel to the centerline will not allow a shim with a width of 1 inch and a thickness of 3/16 inch to pass under the straightedge at any point.

Milled pavement surfaces which do not conform to the requirements above shall be corrected by the Contractor. The Contractor shall prepare and submit to the Engineer for approval a correction plan prior to initiating corrective action.

During milling operations, the cutter teeth shall be regularly checked and replaced as necessary to maintain the tolerances specified in 302-1.1.4.2.

During Micro-Milling operations, the Contractor shall be responsible for removal of all previous slurry seal or other materials on the existing gutter or edge of pavement adjacent to the micro-milled surface prior to slurry sealing. Method of slurry removal shall be approved by the City Representative and all such work shall be considered as included in the unit price for Micro-Milling and no additional compensation shall be allowed therefore.

Micro-Milling shall not be performed more than three calendar (3) days before slurry seal operations for Arterial streets and shall not be performed more than 14 calendar days before slurry seal operations for non-arterial streets, as identified in Appendix B.

302-1.7 Work Site Maintenance. *DELETE in its entirety and SUBSTITUTE with the*

following:

Work site maintenance shall conform to Section 7-8. Debris and residue from cold milling shall not be permitted to enter into catch basins or onto adjacent street surfaces or parkways. The Contractor shall cover and protect all storm drain inlets prior to the start of cold milling operations. All debris shall be completely removed by a street sweeper and any other measures necessary to conform to the contract requirements.

A self-loading motorized street sweeper equipped with brooms, a vacuum system, and a functional water spray system shall immediately follow the milling machine. Sweeping shall continue until loose millings have been completely removed to the satisfaction of the City Representative.

302-1.10 Pavement Transitions. *After the last paragraph, ADD the following:*

When cold milling the pavement creates vertical joints that are 1.5 inches or greater, Contractor shall be required to place and maintain temporary AC transition ramps.

Cold or hot mix A.C. shall be placed and maintained at the interface between milled and non-milled areas to eliminate the hazard caused by sudden elevation differences, especially in pedestrian path of travel areas adjacent to wheelchair ramps, and shall be removed prior to placement of final surface course pavement.

All pavement transitions, AC ramps and temporary striping/markings shall be in place prior to the opening of a lane for traffic. Any pavement grade differential between adjacent lanes that will, with the permission of the Engineer, remain during non-working hours shall be indicated with the appropriate warning signage.

When performing Variable Depth Cold Milling prior to 2" AC overlay, Contractor shall provide for a minimum 25-foot permanent pavement transition to existing grade at all transverse joints adjacent to existing pavement, or other length as directed by the City Representative, per Project Detail No. 3 included in Appendix D.

Cold Milling for pavement transitions shall be measured and paid for as Variable Depth Cold Milling and no additional compensation shall be allowed therefore.

302-1.11 Measurement. *DELETE in its entirety, and REPLACE with the following:*

Quantities of **Variable Depth Cold Milling, 2" Cold Milling, 2" Cold Milling for AC Repairs Prior to Slurry Seal and Micro-Milling Prior to Slurry Seal** to be paid for will be measured by the Square Foot (SF) of the surface area cold milled.

302-1.12 Payment. *After the last paragraph, ADD the following text:*

Payment for **Variable Depth Cold Milling, 2" Cold Milling, 2" Cold Milling for AC Repairs Prior to Slurry Seal, and Micro-Milling Prior to Slurry Seal** shall be at the contract unit prices per **Square Foot (SF)** as detailed in the Bid Proposal, and shall include full compensation for all labor, materials, equipment, tools and incidentals to complete the work and dispose of all materials. Any temporary AC required due to cold milling operations shall be included in the lump sum cost for Traffic Control and no

additional compensation will be allowed.

302-4 SLURRY SEAL SURFACING. *REVISE as follows:*

302-4.1 General. *After the last paragraph, ADD the following:*

The requirements of section 302-4.6, Emulsion-Aggregate Slurry, shall also apply to PME-RAP Slurry Seal described in 203-5.6.

302-4.2 Aggregate Stockpile. *After the last paragraph, ADD the following:*

A site for the Contractor to store stockpiled slurry seal materials is available at the City of Irvine Operations Support Facility at 6427 Oak Canyon, Irvine. Prior to the first shipment of any material, the Contractor shall prepare the site and properly maintain it throughout the duration of the project. Prior to the first shipment of Type I aggregate, the Contractor shall ensure that Type II aggregate is sufficiently isolated to prevent intermixing of aggregate. This is a non-exclusive use of yard area, use of the Contractor's work areas and other City-owned property shall be at the Contractor's own risk, and the City shall not be held liable for damage to or loss of materials or equipment located within such areas.

Throughout the duration of the project, the Contractor shall protect the stockpiled aggregate from contamination by oversized rock, silt, clay, and excessive amount of moisture. Excessively wet aggregate, which exceeds 4% moisture by weight, shall be set aside for drying out to meet the moisture content limit.

Unsuitable or damaged materials shall be removed from the stockpile site within 2 days after notification by the Agency Representative and disposed of in accordance with California law at Contractor's expense.

The Contractor shall submit to the Agency Representative quantity and weight certificates of emulsified asphalt and aggregate on the same day of delivery to the stockpile site. The Contractor shall schedule and coordinate the delivery of emulsified asphalt and aggregate to the stockpile site before 3 p.m. on days when slurry spreading takes place. Advance notification of each delivery shall be given to the Agency Representative for tracking purposes. Quantity and weight certificates shall be submitted to the Agency Representative on the same day of delivery.

Before acceptance of the work and final payment, the Contractor shall clean all project sites, the stockpile site, and all grounds occupied by him in connection with the project. The Contractor shall remove all rubbish, debris, excess materials, temporary structures, and equipment. All parts of the sites and grounds shall be left in a neat and orderly condition.

Full compensation for protection of work and materials and proper maintenance of the stockpile and work sites shall be considered as included in the unit price bid and no additional compensation will be allowed therefore.

302-4.3 Continuous-Flow Mixers. *REVISE as follows:*

302-4.3.1 General. *After the last paragraph, ADD the following:*

The mixing machine shall comply with maximum axel loadings and City of Irvine weight restrictions and shall not carry excessive amount of materials exceeding the GVW rating recommended by the equipment manufacturer.

The mixing machine shall be designed and manufactured to lay slurry seal with a minimum aggregate capacity of eight (8) cubic yards to reduce the number of transverse joints. The slurry seal mixing equipment shall be a continuous flow mixing unit, capable of delivering accurately predetermined proportions of aggregate, asphalt emulsion, and mineral filler (if required) to a revolving spiraled multi-blade mixer and of discharging the thoroughly mixed product on a continuous basis. The mixing unit shall be capable of thoroughly blending all ingredients together. The mixing machine shall be equipped with fines feeder that provides an accurate metering device or method of introducing a predetermined proportion of mineral filler to the aggregate. The fines feeder shall be used only when mineral filler is part of the mix design. The mixing machine shall be equipped with a water pressure system and fog type spray bar. The machine shall be capable of mixing materials at preset proportions regardless of the speed of the machine and without changing machine settings.

The amount of emulsified asphalt as a percentage of aggregate weight for each type of slurry shall conform to the optimum mixing proportions on the approved mix design.

302-4.4 Verification Testing. *After the last paragraph, ADD the following:*

The Contractor shall mix trial batches for each type of slurry seal required using the approved mix designs and place them at test strips designated by the Engineer. The test strips shall be at least 100 feet long and same width as the street. Trial Batches shall be scheduled at least 2 weeks prior to the 1st scheduled day of slurry sealing.

The product acceptability will be based upon strict conformance with the Standard Specifications, Special Provisions and on providing sufficient amount of slurry so that complete coverage is obtained. Lumping, balling, unmixed aggregate, draglines, transverse ridges (washboard appearance), streaks such as caused by oversized aggregates, uneven and excessive longitudinal joint widths, rough handwork, and excessive color variations will be cause for rejection of the trial batches. These criteria shall be used for the acceptance or rejection of all slurry seal placed on this project.

If the mix does not produce an acceptable product, additional trial batches shall be prepared and placed using modified mix designs which must be submitted to the Engineer for approval or modified machine calibrations or both until an acceptable product is produced. The Contractor shall cover unaccepted trial batches with a second application of slurry seal at his own expense.

If the trial batch and test strip are acceptable, the mix design used for that batch will become the approved mix design.

302-4.5 Scheduling, Public Convenience and Traffic Control. *DELETE in its entirety and SUBSTITUTE with the following:*

Requirements for traffic control and public convenience shall be in accordance with Sections 7-10 and 315-3 of the Special Provisions and all other applicable sections.

Slurry seal required for parking lots, bike trails and streets shall be placed not later than three (3) calendar days after Micro-Milling of the location for Arterial streets and not later than 14 calendar days for non-arterial streets, as identified in Appendix B.

302-4.6 Emulsion-Aggregate Slurry (EAS). *REVISE as follows:*

302-4.6.4 Aggregate Application Rate. *REVISE as follows:*

302-4.6.4.1 General. *REVISE Table 302-4.6.4.1 (A) as follows:*

TABLE 302-4.6.4.1 (A)

Aggregate Type	Aggregate Application Rate	
	Minimum	Maximum
Type I	8 lbs/yd ² (4.3 kg/m ²)	10 lbs/yd ² (5.4 kg/m ²)
Type II	12 lbs/yd ² (6.5 kg/m ²)	15 lbs/yd ² (8.1 kg/m ²)
Type III	20 lbs/yd ² (10.8 kg/m ²)	25 lbs/yd ² (13.5 kg/m ²)
RAP Aggregate	13.5 lbs/yd ² (7.3 kg/m ²)	15 lbs/yd ² (8.1 kg/m ²)

302-4.8 Spreading and Application. *REVISE as follows:*

302-4.8.1 Pavement Preparation. *ADD the following new Subsection:*

Immediately prior to crack sealing the Contractor shall sweep and clean the pavement surfaces of all vegetation, dirt, oil deposits, and other objectionable materials. All pavement cracks ¼" or wider shall be cleaned using a wand and compressed air. The compressor used shall be a minimum of 90 cfm and equipped with a device to remove moisture from the compressed air. Air cleaning shall be performed immediately before the application of the crack sealant and shall remove all dust, dirt, oil and other foreign matter.

Crack sealing material shall be Crafc-Polyflex Type 3 (Part No. 34521) or approved equal. Sealant shall be applied at the recommended pour temperature using either a wand equipped with an applicator disk or a squeegee. The joint shall be filled to the top without the formation of voids. Cracks shall be filled flush with the pavement surface surrounding the cracks and any overfill shall be squeegeed so that there is no overband cap above the surface and the width does not extend beyond the crack edges.

The Contractor shall be responsible for determining the extent of the crack sealing. He shall ensure that sufficient crack sealing is performed to prevent reflective cracking

through to the new street surface. Prior to any crack sealing to be performed, the Contractor shall meet with the Agency Representative in the field to discuss extent and adequacy of the work as well as the street surface preparation to receive crack sealant.

When Micro-Milling per 302-1.1.4 is not required, the Contractor shall be responsible for removal of all previous slurry seal or other materials on the existing gutter or edge of pavement adjacent to the slurry sealed surface. Method of slurry removal shall be approved by the City Representative and all such work shall be considered as included in the unit price for Slurry Seal and no additional compensation shall be allowed therefore.

No sooner than the day prior to applying slurry seal, the Contractor shall vacuum sweep and clean the pavement surfaces of all vegetation, dirt, oil deposits, and other objectionable materials. Street sweeping shall also occur on the following day after a street has been slurry sealed to remove all loose aggregates from the street surface.

The Contractor shall be responsible for removal of raised pavement markers and any existing thermoplastic striping per Section 314-3 of the Special Provisions.

When required by the Special Provisions, the contractor shall Micro-Mill the edge of the roadway to be slurry sealed in conformance with 302-1.1.4 prior to slurry seal operations. Payment for this work shall be separate and is not included in the unit price bid for slurry seal items.

When required by the Special Provisions, the Contractor shall perform AC Repairs prior to slurry seal operations. Payment for this work shall be separate and is not included in the unit price bid for slurry seal items.

302-4.8.2 Slurry Seal Operations. *ADD the following new Subsection:*

Before slurry sealing, the Contractor shall place and maintain protective, durable covers over manholes, water valves, monuments, other utility covers. He shall take care to ensure a tightly-fitted slurry application around these items to prevent water penetration under the new slurry. After the new slurry has cured and before opening the streets for traffic, he shall clean and expose all utility covers and equipment. The Contractor is responsible for any damage to utility covers or equipment due to inadequate protection.

The mixture shall be spread uniformly by means of a conventional surfacing spreader box attached to the mixing machine having a rubber-like material in contact with the surface to prevent unwanted egress of slurry. It shall prevent loss of slurry on varying grades and crown by adjustments to assure uniform spread. An appropriate mechanical device for lateral distribution of the slurry shall be operated within the spreader box. There shall be a steering device, a flexible strike-off, and a burlap or other approved drag. The spreader box shall be adjustable to widths from eight (8) to fifteen (15) feet to minimize the number of longitudinal joints. Cured slurry seal mixture shall not be allowed to collect in the spreader box or on the flexible strike-off.

The Contractor shall maintain all equipment in proper working condition. Faulty equipment shall be grounds for suspension of slurry spreading. No adjustment of unit price of any items or increase in compensation shall be allowed for the suspension. The

days of suspension caused by faulty equipment shall be counted as working days and the contract completion date shall not be extended.

When slurry sealing roadways, the outermost lanes shall be slurry sealed first and the center lanes last. To prevent any lip edges in the application of slurry seal, the Contractor shall feather the edges. Longitudinal joints shall correspond with the edges of existing traffic lanes. A maximum of six (6) inches shall be allowed for overlap of longitudinal lane in line joints. Building paper shall be placed at transverse joints, over previously placed slurry seal to avoid double placement of slurry seal. Ridges or bumps in the finished surface will not be permitted.

Hand squeegees, shovels, hand burlap bags, and other equipment shall be provided by the Contractor, as necessary, to perform the work, remove spillage and spread slurry in areas inaccessible to the spreader box. Squeegees of all slurry edges require a burlap finish. Any streets with slurry seal overspill onto the gutter shall be cleaned up immediately on the same day as the slurry application.

302-4.8.3 Rolling. *ADD the following new Subsection:*

All types of Slurry Seal applied in this project shall be rolled with a pneumatic roller (rubber tire roller) conforming to 302-5.6.1, with a minimum of three complete passes over the entire slurry seal area prior to opening the road to traffic. A complete pass shall be a movement of a roller in both directions over the same path.

302-4.8.4 Street Sweeping. *ADD the following new Subsection:*

The Contractor shall have a street sweeper at the work site at all times during the work. The Contractor shall sweep the surface of all slurried streets on at least two occasions (approximately 2-days and 7-days after slurry has been in place) to remove loose aggregate. The sweeps shall also be conducted within 48 hours of receiving a Notice to Correct from the Inspector or Engineer. The Contractor shall make complete (curb-to-curb) passes on all scheduled sweeps. The Contractor shall also sweep construction debris and spillage on City streets after each construction day.

302-4.9 Field Sampling and Testing. *REVISE as follows:*

302-4.9.1 Field Sampling. *DELETE in its entirety and SUBSTITUTE with the following:*

During the performance of the work, the Contractor shall hire a laboratory capable of performing the applicable ASTM tests; the laboratory shall take at least two field samples, from separate loads, of mixed slurry seal per slurry truck, per day for testing. WTAT specimens shall be cast and struck off within 60 seconds of obtaining the sample. WTAT specimens shall not be transported until the slurry seal has set as defined by ASTM D3910. The test results shall be delivered to the Engineer directly from the laboratory.

Field samples shall conform to the requirements shown in Table 302-4.9.1 (A):

TABLE 302-4.9.1 (A)

Tests	Test Method	Requirements	
		Min.	Max.
Wet Track Abrasion Test, Weight Loss, gm/ft ² All Types of Slurry Seal	ASTM D3910 ¹	0	50
Consistency Test (mm)	ASTM D3910 ¹	20	40
Extraction Test (Calculated Emulsion Content, %)	D6307 ² or CT 382 ²	± 1% of mix Design	
Water Content (% of Dry Aggregate)	See Note 3	0	25

1. Modified ASTM D3910 to include No. 4 (4.75mm) aggregate or greater and to be performed using field samples. Subsection 6.4.4.7, ASTM D3910 may be modified to use a microwave oven for drying the specimen after the abrasion cycle is complete and the debris washed off.
2. Modified ASTM 6307 and California Test Method 382 to allow a minimum of 500 ±50 gram sample.
3. Weigh a minimum of 500 grams of homogenized mixed slurry into a previously tared quart can with a friction lid. The lid shall be placed on the can to prevent loss of material during transporation. Place the can with the lid off in an oven and dry to constant mass at 220°F ±10°F (110°C ±5°C).

If the test results fail to meet the Specifications, the Contractor shall cease spreading slurry seal produced by the nonconforming mixer until the Contractor demonstrates the mixer is producing slurry seal which conforms to the Specifications.

302-4.10 Measurement. *DELETE in its entirety and SUBSTITUTE with the following:*

The basis of measurement for all types of slurry seal shall be measured and paid for by the square yards of surface area completed and accepted as designated by the Engineer for each type applied. Slurry seal work that has been rejected shall not be measured and paid for.

302-4.11 Payment. *REVISE as follows:*

302-4.11.1 Payment Reduction for Non-Compliance. *DELETE in its entirety and SUBSTITUTE with the following:*

Payment to the Contactor shall be reduced for failure of the field test samples to conform to the WTAT requirements specified in 302-4.9.1.

If the results of the WTATs performed each day fails to conform to the requirements specified in 302-4.9.1, the Contractor agrees that payment for the Work represented by the failed tests shall be reduced as shown in Table 302-4.11.1 (A).

TABLE 302-4.11.1 (A)

WTAT Loss gm/ft²	Payment Reduction (Percent) All Types of Slurry Seal
0 – 50	0 %
50.1 – 60	5 %
60.1 – 70	15 %
70.1 – 80	30 %
80.1 – 95	70 %
95.1 or greater ¹	95 %

1. Slurry seal surfacing with WTAT loss greater than 95 gm/ft² shall be removed by micro-milling, or other method as approved by the Engineer.

For WTAT Loss greater than 80, the Engineer shall have sole discretion in whether to accept slurry seal quantities with payment reductions or shall have the option to reject the work and require the contractor to slurry seal the rejected locations again.

302-4.11.2 Slurry Seal Mixed in Continuous Flow Mixers. *DELETE in its entirety and SUBSTITUTE with the following:*

Payment for accepted quantities of **Type I Emulsion Aggregate Slurry Seal** and **Polymer Modified Emulsion Type II RAP Slurry Seal (Type II-PME-RAP Slurry)** complete in place will be paid for at the contract unit price per **Square Yard (SY)** which price and payment shall be full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the slurry seal, complete in place, including testing for and furnishing the mix design, trial batches and test strips, cleaning the surface, rolling, street sweeping, furnishing added water and set-control additives, latex, mixing water with asphaltic emulsion for coating the pavement, application of crack seal material, water, and protecting the seal until it has set, all as shown on the plans, and as specified in the Standard Specifications and the Special Provisions, and as directed by the Engineer.

Payment reduction for non-compliance shall be per Section 302-4.11.1.

302-5 ASPHALT CONCRETE PAVEMENT. *REVISE as follows:*

302-5.2 AC Mixes and Paving Requirements. *ADD the following new Subsection:*

302-5.2.1 AC Mixes.

Asphalt concrete mixes to be used for the various types of paving operations shall have fiber reinforcement using FORTA-Fi or Agency approved equal and be as shown in Table 302-5.2.1 (A).

TABLE 302-5.2.1 (A)

AC Paving Operation	AC Mix Design
2" Surface Course Overlay for Roadways	Fiber Reinforced C2-PG 64-10
Any AC Paving for Bike Trails	Fiber Reinforced Type III C3-PG 64-10
Any AC Paving for Parking Lots	Fiber Reinforced Type III C3-PG 64-10
Any AC Repair Locations 2" Thick or Less	Fiber Reinforced Type III C3-PG 64-10
Full Depth AC Slot Paving Adjacent to New PCC Construction	Type III C3-PG 64-10
Base Paving for Dig-Out Repairs – 3" Min.	Fiber Reinforced B-PG 64-10

The Contractor shall submit for approval all Asphalt Concrete Mix Designs at least one week prior to paving operations. The submittal shall include a manufacturer's Certificate of Compliance for the Fiber Reinforcement stating the material authenticity and properties for review and acceptance by the Engineer before using the material

302-5.2.2 Paving Requirements.

Asphalt Concrete paving required for parking lot, bike trail and street overlay shall be placed not later than three (3) days after cold milling of the locations. The Contractor shall not leave an exposed milled surface for more than three (3) calendar days without the explicit approval of the City. Payment Reduction for non-compliance shall be per Section 302-5.9.1 of these Special Provisions.

Asphalt concrete paving required for Fiber Reinforced AC Paving for Repairs Prior to Slurry Seal shall be placed within the same workday as Cold Milling for AC Repairs Prior to Slurry Seal. Payment Reduction for non-compliance shall be per Section 302-5.9.1 of these Special Provisions.

Asphalt concrete paving required for AC Slot Paving Adjacent to New PCC Installations shall be placed within 48 hours after removal of form boards. Contractor shall re-compact the subgrade of the AC slot removal and perform Full Depth AC Slot Paving. All new AC pavement adjacent to new PCC installations shall be a minimum of 1-foot wide and up to a maximum of 4-foot wide, as determined by the City Representative, and constructed to the full depth of the trench, unless otherwise approved by the Engineer.

Payment for AC Slot Paving Adjacent to New PCC Installations shall be considered as included in the unit price bid for the related PCC construction items and no additional compensation will be made.

All soils and AC materials are subject to testing by a lab approved by the City.

302-5.2.3 Dig-Out Repairs.

NOT A PART.

302-5.2.4 Unpaved Shoulders.

When unpaved shoulders exist adjacent to streets or bike trails that are scheduled to receive an AC Overlay, the Contractor shall be required to shape, grade and/or reconstruct the adjacent shoulder to be flush with the new finish surface. The shoulder shall be defined as all soils and materials required to connect the finished surface of the new edge of pavement to the existing natural ground surface or other adjacent improvement.

Shoulders adjacent to bike trails shall have safety edge area with a minimum width of 18 inches and a maximum of cross-slope of 2% draining away from the trail. The side slope of the shoulder shall connect the safety edge to the existing natural ground surface. The side slope shall be graded to a slope of 1:1 or flatter.

Contractor shall take all precautions necessary to not damage the finish surface of the adjacent new AC Overlay and shall only use equipment that will not scar or otherwise damage the new AC surface. Contractor shall sweep clean the surface of the trail upon completion of all shoulder construction.

Shoulder construction shall be completed prior to starting traffic striping and pavement markings for the adjacent AC surface.

When additional material is required to reconstruct shoulders, the contractor shall provide either CAB or CMB per Section 200-2 or other soils as approved by the Engineer. Placement of soils and base materials shall conform to Section 301-2.

All costs for grading, shaping and reconstructing unpaved shoulders shall be considered as included in the unit costs for the related Asphalt Concrete items and no additional compensations shall be allowed therefore.

302-5.5 Distribution and Spreading. *After the last paragraph, ADD the following text:*

Prior to placing any AC leveling course or final surface course, all cracks greater than or equal to ¼ inch in width shall be filled with crack sealant. The pavement surface should be warm, dry and free of any dust, dirt and deleterious material before applying the crack sealant.

The crack sealant shall Crafcro Polyflex Type 3 or approved equal. The contractor shall submit for approval the material he intends to use for crack sealant two (2) weeks prior to its incorporation into the work.

The Contractor shall be responsible for maintaining location of and access to all water line gate valves during construction operations. Locations of water valves shall be marked per Section 302-5.8, and as required by the IRWD Inspector.

302-5.6 Rolling. *REVISE as follows:*

302.5.6.1 General. *After the last paragraph, ADD the following text:*

Initial or breakdown compaction shall consist of a minimum of three coverages of a layer of asphalt mixture. A pass shall be a movement of a roller in both directions over the same path. A coverage shall be as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage made to ensure compaction without displacement of material in accordance with good rolling practice shall be considered a part of the coverage being made and not a part of a subsequent coverage. Each coverage shall be completed before subsequent coverages are started. Pneumatic rollers shall not be used without prior approval of the Engineer. The top layer of each lane, once commenced, shall be placed without interruption.

302-5.8 Manholes and Other Structures. *REVISE as follows:*

302-5.8.1 General Requirements. *ADD the following new Subsection:*

When used in this section, Manhole shall mean any manhole, utility vault, pull box, valve can, valve box, well can or other surface utility cover which is permanently set within the pavement, regardless of the agency or utility company that owns the facility.

Adjustment of City Survey Monument frames and covers to grade shall conform to City of Irvine Standard Plan 214.

Adjustment of City Storm Drain Manhole frames and covers to grade shall conform to City of Irvine Standard Plans 311-314.

The Contractor shall be responsible for coordinating his work with the various utility owners who may be required to adjust their own surface utility covers to grade. This includes surveying and tying out these covers per Section 302-5.8.3, marking out the location of these covers per Section 302-5.8.5 and notifying all surface utility owners prior to performing any work that will affect their facilities. If the required adjustment of these owner-adjusted utility covers will impact the Contractor's subsequent work (for example traffic striping and/or traffic loop replacement), then the Contractor shall coordinate his work schedule and/or perform follow up work to ensure that the quality of the final product is not compromised.

302-5.8.2 Irvine Ranch Water District (IRWD) Facilities. *ADD the following new Subsection:*

The City reserves the right to omit the alternate bid items, which cover the Irvine Ranch Water District (IRWD) surface utility installations/adjustments. The alternate bid items, which address the installation or adjustment of IRWD water valve, recycled water valve, sewer cleanout and sewer manhole frames and covers to grade, is subject to IRWD's approval for ultimate reimbursement to the City. If upon receipt of bid, which establishes the contract unit prices, IRWD chooses to perform the work themselves, then the City reserves the right to delete this alternate bid item, without any additional compensation to the Contractor.

Installation of new water valve, recycled water valve and sewer cleanout frame and cover to grade and adjustment of existing IRWD sewer manhole frame and cover to

grade shall conform to the applicable sections of the IRWD General Technical Specifications, IRWD Standard Drawings, IRWD Procedural Guidelines and these Special Provisions.

IRWD General Technical Specifications, IRWD Standard Drawings IRWD Procedural Guidelines and are available for download at:

<https://www.irwd.com/images/pdf/doing-business/engineering/IRWDConstructionManualDec2017.pdf>

Installation of new IRWD water valve, recycled water valve and sewer cleanout frames and covers to grade shall conform to IRWD Standard Drawings. All IRWD water valve, recycled water valve and sewer cleanout valve cans and lids shall be removed and replaced with new cans and lids and adjusted to final grade.

Adjustment or installation of manholes, domestic and recycle water utility frames and covers that are made a part of the Contract, shall begin within three days after paving.

Domestic water valve, recycled water valve and sewer cleanout valve can lids shall be painted in accordance with IRWD General Technical Specifications Section 09900-System C-2, and Section 15100; all costs for painting of lids shall be considered as included in the unit costs for adjustment to grade.

The contractor shall obtain valve can lids prior to street paving operations and shall paint them appropriately prior to installation and adjustment to grade.

Adjustment of existing IRWD sewer manhole frame and cover to grade shall conform to IRWD Standard Drawings. Extension of existing PVC sewer manhole lining, when applicable, shall conform to IRWD standard plans and specifications.

Adjusted sewer manhole frames and covers shall be wire brushed clean to remove all asphalt, dirt and debris. After cleaning, the Contractor shall coat the top surface of the frame and lid (with lid in place) with Carboline 890 VOC (Black), or approved equal, to a dry-film thickness of 5 mils; All costs for coating frames and covers shall be considered as included in the unit cost for adjustment to grade.

The Contractor shall coordinate all IRWD work with the Agency Representative and the IRWD inspector for inspection of this work.

Irvine Ranch Water District will be responsible for furnishing all new valve box frames and covers for installation of new water valve, recycled water valve and sewer cleanout frame and covers. Contractor shall be responsible for coordinating with IRWD Inspection to request the furnished valve box frames and covers at least 15 days prior to beginning the work. Contractor is responsible for picking up the furnished materials from IRWD; valve boxes will not be delivered to the project site or other location.

302-5.8.3 Surveying Prior to Construction. *ADD the following new Subsection:*

All surface utility covers, including those to be adjusted to grade by others, shall be located in the field prior to beginning any work on this project. Contractor shall be required to identify and tie-off all surface utility covers at the nearest curb prior to paving

operations. The Contractor shall also submit a written report of the count of each type of manhole/utility structure within the pavement area of streets to be paved.

Immediately following paving operations, the Contractor shall be required to mark with paint, the location of all covered manholes on the newly paved surface, regardless of whether these are Contractor adjusted utilities or not. All surface utility covers shall be marked on the new pavement surface in the same day as paving operations, in accordance with Section 302-5.8.5 of these Special Provisions.

302-5.8.4 Lowering Manhole Covers Before Construction. *ADD the following new Subsection:*

For pavement sections to be cold milled and paved in accordance with Project Detail No. 1 (2" Cold Milling – Consistent Depth), the contractor shall be required to lower all manholes and other surface utility covers to a depth sufficiently below the grade of the cold milled section prior to beginning any cold milling operations for that street.

Contractor shall cover the lowered manhole covers with either Cold Mix or Hot Mix AC and shall pave it flush with the adjacent pavement surface.

No separate payment shall be made for the lowering of manholes in conformance with this Section and all costs for work required in this Section shall be considered as included in the various unit prices bid for adjusting manholes and other utility covers to final grade and no additional compensation shall be allowed therefore.

302-5.8.5 Adjusting Manhole Covers to Final Grade. *ADD the following new Subsection:*

Contractor shall be required to identify and mark with paint, on the newly applied pavement surface, the location of all manholes and other surface utility covers that have been covered by the new AC, regardless of whether these are Contractor adjusted utilities or not.

The actual location of all surface utility covers shall be marked on the new pavement surface with paint in the same work day as paving operations. The following markings shall be made for each type of utility cover.

- SM – Survey Monument
- SD – Storm Drain Manhole
- WV – Water Valve
- RW – Reclaim Water Valve
- CO – Sewer Cleanout
- S – Sewer Manhole
- SCE – Southern California Edison
- OT – Other Utility

Adjustment or installation of manholes, domestic and recycle water utility frames and

covers that are made a part of the Contract, shall begin within three days after paving.

The following method shall be utilized to adjust manholes and other surface utility frames and covers to grade.

- 1) After the asphalt concrete pavement overlay has been completed, circular holes shall be cut where the cover exists. The diameter of the circular hole shall be at least 24" larger than the outer diameter of the cover, or as detailed in the standard drawings.
- 2) The cover shall then be raised to the finished pavement grade and suitably blocked and concreted in place to the satisfaction of the Owner's Representative.
- 3) A PCC collar shall be poured around the cover to an elevation of a minimum of 1.5 inches and maximum of 2 inches below finished pavement grade. Said PCC collar shall have a minimum depth of 8" and be placed over a minimum of 4" CAB, thoroughly compacted to a minimum relative compaction of 95 percent.
- 4) After the concrete has cured sufficiently, a tack coat shall be applied and asphalt concrete surface course material shall be placed to finished pavement grade, not later than 2 calendar days after the frame and cover has been adjusted to grade.

The Contractor shall remove existing concrete pads or collars that might interfere with the adjustment of the valve cover to the grade of the A.C. surface. Any damage to existing utility systems or appurtenances by the Contractor shall be replaced at the Contractor's expense.

The Contractor shall remove all debris from the interior of manholes and shall clean all foreign material from the top of the frames and covers.

302-5.9 Measurement and Payment. *After the last paragraph, ADD the following text:*

The quantities of the asphalt concrete to be paid for will be measured by the actual tonnage (ton) of material and no additional compensation will be allowed therefore. The Contractor shall furnish to the Engineer at the time of delivery of the material on the job site a legible copy of a licensed weighmaster's certificate showing gross, tare, and net weights of each truckload of asphalt concrete mixture.

Payment for **2" Fiber Reinforced Asphalt Concrete Overlay** and **Fiber Reinforced AC Paving for Repairs Prior to Slurry Seal** shall be made at the unit price bid per **Ton**, as called for in the bid schedule, except as provided for in Section 302-5.9.1, and shall include full compensation for all labor, materials, equipment, tools and incidentals to complete the work including all shoulder reconstruction and proper disposal of all materials. The City will not compensate the Contractor for any additional costs incurred by change or lack of availability of asphalt binders.

All other temporary or permanent asphalt concrete work required for traffic control or other purposes shall be considered included in the price bid for other items and no additional compensation will be allowed therefore.

Payment for **Adjust Survey Monument Frame and Cover to Grade** and **Adjust Storm Drain Manhole Frame and Cover to Grade** shall be at the unit price bid for **Each Item (EA)**. The contract unit price paid shall include full compensation for furnishing all labor, materials (including Asphalt Concrete and Portland Cement Concrete), tools, traffic control, incidentals and coordination work with utility owners to accomplish the work, including lowering of manholes per Section 302-5.8.4 and final adjustment to grade as specified herein, and no additional compensation will be allowed therefore.

Payment for **Install New IRWD Water Valve Frame and Cover to Grade, Install New IRWD Recycled Water Valve Frame and Cover to Grade, Install New IRWD Sewer Cleanout Frame and Cover to Grade, and Adjust Existing IRWD Sewer Manhole Frame and Cover to Grade** shall be at the unit price bid for **Each Item (EA)**. The contract unit price paid shall include full compensation for furnishing all labor, materials (including Asphalt Concrete and Portland Cement Concrete), tools, traffic control, coordination with IRWD, obtaining IRWD provided materials, painting valve can lids, incidentals and coordination work with other utility owners to accomplish the work, including lowering of manholes per Section 302-5.8.4 and final adjustment to grade as specified herein, and no additional compensation will be allowed therefore.

302-5.9.1 Payment Reduction for Non-Compliance. *ADD the following new Subsection 302-5.9.1:*

Payment to the Contractor will be reduced for any asphalt concrete bid item for which the asphalt concrete is not placed, rolled, compacted and finished, complete in place within the time limits described by these Special Provisions, unless otherwise explicitly authorized by the Engineer.

Payment to the Contractor for all asphalt concrete paving items shall be reduced by Fifteen Percent (15%) for each and every working day's delay in completing the paving as required by the Special Provisions.

Payment Reduction for Non-Compliance is separate from and in addition to the requirements of Section 6-9, Liquidated Damages as specified in the Special Provisions.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS.

303-5.1 Requirements. *REVISE as follows:*

303-5.1.1 General. *After the last paragraph, ADD the following text:*

At the Pre-Construction meeting, the Engineer will submit to the Contractor a list of all identified PCC construction items. The Contractor shall schedule all work in accordance with Section 6-1 of these Special Provisions. Schedules shall be prepared to provide the least amount of inconvenience to the public.

A map showing the planned concrete ramp construction locations is included in Appendix B of these Special Provisions.

At least 1 week prior to start of PCC removals, the Contractor shall meet with the City Representative in field to mark the limits of all identified PCC construction items. Contractor and City Representative shall also discuss and identify the proper type/case for Access Ramp reconstruction.

All concrete mixtures and cements shall conform to Section 201-1 of these Special Provisions.

Construction of all PCC items shall conform to the City of Irvine Standard Plans, or Caltrans/APWA standard plans and these Special Provisions. Copies of related standard plans are included in Appendix D.

Contractor shall dowel all new PCC improvements into adjacent existing PCC improvements. Contractor shall use 12-inch long No. 3 ribbed steel reinforcing bars spaced a maximum 18-inches apart starting at least 6-inches away from the edge of the PCC. Rebar shall be imbedded a minimum of 4-inches into the existing PCC and a minimum of 4-inches into the new PCC.

Prior to placement of concrete, Contractor shall compact the sub-base with a mechanical vibratory plate, or other method approved by the Engineer. A relative compaction of 90% is required for subgrade and 95% for aggregate base.

Contractor shall provide appropriately sized, traffic rated, non-skid steel plates to bridge over all open excavations or freshly placed PCC to provide access to all driveways, streets and intersections. Steel plates shall be in place by the end of each work day.

Contractor is solely responsible for and shall perform all actions necessary for ensuring the construction of a continual straight grade flow line for all new gutter/cross gutter sections; new PCC gutter/cross gutter shall match the flow line of the existing gutters/cross gutters adjacent on both sides.

303-5.1.1.1 Curb Access Ramp. *ADD the following new Subsection:*

Case/type and removal limits must be approved by the City Representative prior to saw cutting and removal of any existing infrastructure. Any modifications required by the Engineer resulting from the Contractor's failure to secure approval prior to curb ramp replacement will be performed at the Contractor's sole expense.

PCC curb access ramps shall conform to the City of Irvine Standard Plan 202 or SPPWC Standard Plan 111-4 and Caltrans Standard Plans A88A and A88B, modified to include the following detectable warning surfaces or approved equal:

Access Tile (Part No. ACC-R3x4-BK)
(562) 842-9934
www.accesstile.com

All detectable warning surface installations shall be cast in place unless otherwise approved by the Engineer.

The detectable warning surface required for new PCC curb ramps shall be cast-in-place manufactured by Access Tile, (562) 842-9934, www.accesstile.com, or be an approved equal. The color shall be black or approved equal. The truncated dome mat shall be installed across the entire width of the bottom of the access ramp and shall be installed per the manufacturer's installation recommendations, per City of Irvine Standard Plan 202, as directed by the Engineer.

At a minimum, the Contractor shall adhere to the truncated dome mat manufacturer's installation requirements including proper surface preparation and protection of the work and surrounding area.

The area of the PCC Curb Access Ramp shall be defined as the entire area from the BCR to the ECR of the curb return for the entire width of the area from the front edge of the gutter to the back of the parkway/property line. This includes any retaining curb at the back of the ramp, curb, gutter and/or any flat work required within the BCR to ECR area and adjustment to grade of any pull boxes within the construction area. All construction within this area shall be considered as included in the unit price bid for PCC Curb Access Ramp and no additional compensation will be allowed.

Where retaining curbs are required at the back of access ramps or sidewalk to make up for a difference in elevation between existing adjacent grade and the proposed ramp/sidewalk grade, construction of said retaining curb shall be considered as included in the price bid for construction of the access ramp.

Concrete curb ramps shall be constructed to join existing surfaces or as approved by the Engineer. Existing surfaces to be joined shall be saw cut on a neat, straight line at the join location. The Contractor shall remove and replace any new concrete work with graffiti markings and blemishes at no additional cost to the City. All concrete work shall be finished in texture, scoring, banding in generally the same manner as the adjacent existing improvements.

The Contractor shall saw cut and fully reconstruct a 1-foot to 4-foot wide portion of the pavement adjacent to the curb ramp or curb and gutter as necessary to maintain gutter flow while achieving the maximum 5% adjoining gutter or road surface slope (see note 9 - City of Irvine Standard Plan 202).

Pull boxes within the curb ramp removal limits shall be replaced with new pull boxes per City of Irvine Standard TS-2 and Section 104.3 of the City of Irvine Design Manual.

Contractor shall coordinate with utility company before construction for any utility company facilities that need to be adjusted to grade.

303-5.1.1.2 Sidewalks and Miscellaneous 4" Thick PCC. *ADD the following new Subsection:*

Concrete sidewalk shall conform to the City of Irvine Standard Plan 201 shall be keyed under existing panels.

Concrete sidewalk shall be constructed to join existing surfaces or as approved by the Engineer. Existing surfaces to be joined shall be saw cut on a neat, straight line at the join location. The Contractor shall remove and replace any new concrete work with graffiti markings and blemishes at no additional cost to the City.

303-5.1.1.3 PCC Curbs, Gutters, Cross-Gutters, Spandrels, and Miscellaneous 8" Thick PCC. *ADD the following new Subsection:*

All curb or curb and gutter shall be constructed per the City of Irvine Standard Plan No. 200. The curb or curb and gutter type shall match the existing improvements or as approved by the Engineer. Existing curb or curb and gutter to be joined shall be saw cut on a neat, straight line at the join location. Reconstructed curbs or curb and gutters shall be constructed so the top of curb matches the sidewalk or curb ramp surface elevation or as approved by the Engineer. There shall be no lip from ramp to gutter or street. Curb or curb and gutter construction shall occur prior to the placement of any adjacent AC.

All utility markings on existing curbs, including, but not limited to, "S" for sewer and "W" for water, the Contractor shall field locate with reference points; and shall keep a written log of those locations. Markings shall then be chiseled or stamped on new curb face in 3" high letters.

Reconstruction of concrete cross-gutters, longitudinal gutters, and spandrels at curb access ramp locations identified for replacement shall be constructed per SPPWC Standard Plan 122-1.

Concrete cross-gutters, longitudinal gutters, spandrels and other Miscellaneous PCC construction at curb access ramp locations identified for replacement shall be constructed to join the lines, grades of the proposed curb ramps identified for replacement in the contract documents or as approved by the Engineer. Existing surfaces to be joined shall be saw cut on a neat, straight line at the join location.

The concrete cross-gutters, longitudinal gutters, spandrels and other Miscellaneous PCC construction type shall match the existing improvements or as approved by the Engineer. Existing cross-gutters, longitudinal gutters, spandrels and other Miscellaneous PCC construction to be joined shall be saw cut on a neat, straight line at the join location. There shall be no lip from curb ramp to concrete cross gutters, longitudinal gutters, crosswalks and spandrels. Concrete cross gutters, longitudinal gutters, crosswalks and spandrel construction shall occur prior to the placement of any adjacent AC.

Prior to acceptance of the curbs, gutters, cross-gutters, longitudinal gutters, spandrels and other Miscellaneous PCC construction by the City Representative, a flow test shall be conducted by the Contractor in the presence of the City Representative to assure adequate water flow. If water ponds in the flow line, the Contractor shall make adjustments as directed by the City Representative to establish adequate flow.

The Contractor shall reconstruct the removed portion of any AC pavement adjacent to any PCC construction item in accordance with Section 302-5. This work shall be considered as included in the unit price bid for the related concrete work and no additional compensation will be allowed.

303-5.9 Measurement and Payment. *After the last paragraph, ADD the following text:*

Payment for **PCC Curb & Gutter** shall be on a **Linear Foot (LF)** Unit Price basis and shall be considered full compensation for furnishing labor, materials, equipment, and disposal to complete the construction, including all removals per Section 300, the infill of the full-depth AC pavement adjacent to the proposed concrete improvements, and all other work required by these special provisions, and no additional compensation will be allowed therefore.

Payment for **PCC Curb Access Ramp** shall be at the unit bid price for **Each Item (EA)** and shall be considered full compensation for furnishing labor, materials, equipment, and disposal to complete the construction, including all removals per Section 300, the infill of the full-depth AC pavement adjacent to the proposed concrete improvements, and all other work required by these special provisions, and no additional compensation will be allowed therefore.

Payment for **4" Thick Miscellaneous PCC Improvements** and **8" Thick Miscellaneous PCC Improvements**, shall be on a **Square Foot (SF)** Unit Price basis and shall be considered full compensation for furnishing labor, materials, equipment, and disposal to complete the construction, including all removals per Section 300, the infill of the full-depth AC pavement adjacent to the proposed concrete improvements, and all other work required by these special provisions, and no additional compensation will be allowed therefore.

In addition, payment for constructing any PCC improvement shall include full compensation for all related root pruning adjacent to reconstruction areas, all related forming, sub-grade preparation, all related sprinkler system modifications and repairs, and no additional compensation will be allowed therefore.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

314-1 GENERAL. *After the last paragraph, ADD the following text:*

The Contractor shall install all traffic striping, markings, and markers on the surfaces of all bike trails, parking lots, and streets from curb to curb after A.C. paving or slurry seal is applied. All work shall conform to Caltrans Standard Specifications and Standard Plans, latest edition, City of Irvine Standard Plans and these Special Provisions. The Contractor is responsible for inspecting all streets to be painted prior to submitting a bid.

Nothing in these Special Provisions shall relieve the Contractor from the responsibilities established in Subsection 7-10, "Public Convenience and Safety", of the Standard Specifications for Public Works Construction.

The Contractor shall document and record the As-Built condition of the existing striping, markings, and conditions on all streets prior to start of construction. This information shall be sufficient information for the Contractor to be able to re-install all striping and markings after asphalt concrete placement or slurry seal application. Documentation shall be provided in a table format, specifying the street name and quantity of each type of lane stripe and legends. The documentation shall be submitted and approved by the Engineer prior to start of any striping work. The City may elect to make changes to the existing striping and legends on certain streets.

Ladder crosswalks shall be reinstalled per Caltrans Standard Plan A24F with 2 feet wide ladder striping and 2 feet wide spacing in between. Limit lines shall be 1 foot wide.

Contractor shall note that the traffic striping and pavement markings on Northwood, Southwood, Eastwood, and Westwood loop will be revised as shown on plans and details in Appendix C. Contractor shall install striping and pavement markings on these streets as shown in the plans and details in Appendix C and standard plans included in Appendix D and has approved by the Engineer.

314-1.1 Temporary Traffic Striping and Delineation. *ADD the following new Subsection:*

The Contractor shall mark or otherwise delineate the new temporary traffic lanes, crosswalks and pavement markings with reflective plastic tabs and cat-tracks before leaving the site on the same day that slurry seal or asphalt concrete is applied.

The Contractor shall be responsible for maintaining and reinstalling reflective tabs as needed until permanent pavement markers have been installed.

Within 3 working days after installation of pavement markers, the contractor shall remove reflective tabs without causing damage to the new slurry or AC.

When required in accordance with Section 302-1.1.3 of these Special Provisions, the Contractor shall be responsible for painting and installation of Temporary Traffic Striping Required After Cold Milling.

314-2 REMOVAL OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS. *DELETE in its entirety, and REPLACE with the following text:*

Removal of existing traffic striping and pavement markings is not typically required on this contract. Contractor shall be allowed to place slurry seal or asphalt concrete paving directly on existing pavement and existing striping.

This shall not relieve the contractor of any requirements to sandblast, grind, or otherwise remove any paint, striping, markers, legends, traffic lanes, or markings that conflict with existing signs, temporary construction traffic controls, or temporary traffic striping or which may cause confusion for the general public.

Removal of existing traffic striping, markings, markers, lines, and legends for the purpose of eliminating conflicts with existing signs, temporary construction traffic controls, or temporary traffic striping shall be considered as included in the Lump Sum price bid for Traffic Control and Public Convenience and no additional compensation shall be allowed therefore.

314-3 REMOVAL OF PAVEMENT MARKERS. *DELETE in its entirety, and REPLACE with the following text:*

For streets receiving slurry seal, all existing pavement markers and thermoplastic stripings shall be removed flush with the existing pavement, prior to resurfacing.

Removal of existing pavement markers shall be performed in such a manner as to leave the existing pavement undamaged. Asphalt concrete pavement shall be considered damaged when a depression of more than ¼ inch results. Damaged asphalt concrete pavement shall be patched with E-PG 64-10 asphalt concrete conforming to Sections 203-6 and 302-5, or by other method approved by the Engineer.

Pavement markers that are partially or completely buried in previous slurry seal layers shall be removed by grinding. Alternate methods of removal require prior approval of the City of Irvine. The Contractor shall be responsible for the immediate removal of materials from grinding by vacuum or mechanical street sweeping devices.

All costs for Pavement Marker Removal shall be considered as included in the lump sum price bid for Traffic Striping, Markings and Markers and no additional compensation shall be allowed therefore.

314-4 APPLICATION OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS. *REVISE as follows:*

314-4.1 General. *DELETE in its entirety, and REPLACE with the following text:*

Traffic striping and pavement markings shall be installed in accordance with the CA MUTCD and all other applicable City of Irvine Standards. Striping and pavement marker placement for all lane lines shall conform to Caltrans Standard Plan A20A, Detail 9, unless otherwise approved by the Engineer.

Traffic striping and pavement markings shall be installed exactly as the existing layout

prior to construction, unless otherwise directed by the Engineer.

Pavement marking stencils shall match those used by the City of Irvine. All pavement legends shall be replaced using the City of Irvine's exact pavement stencils (Hawkins M Group H, or approved equal). The Contractor shall produce and provide stencils and templates for use as part of this project at no additional cost to the City.

Paint shall be used for all stripings and markings on all streets. All stripes and pavement legends shall be reflectorized. All legend and crosswalk symbol painting shall be applied with pre-mix paint only. Paint for cat-tracks and dribble lines shall be furnished by the Contractor. Two applications of paint shall be made for all layout alignment and spotting.

Paint shall be mixed in accordance with the manufacturer's instructions. It shall be mixed thoroughly and applied to the surface at the proper temperature, at its original consistency without the addition of any paint thinner.

The rate of application of paint and beads are as follows:

- a) Broken 4" single stripes, 6 to 6.5 gallons per mile.
- b) Solid 4" single stripes, 17 to 18 gallons per mile.
- c) Six pounds of beads per gallon of paint.
- d) Wet paint thickness, 15 mils.
- e) Dry paint thickness, 8 to 10 mils.

314-4.2 Control of Alignment and Layout. *DELETE in its entirety, and REPLACE with the following text:*

The Contractor shall furnish the necessary control points for all required pavement striping and markings by surveying methods. The Contractor shall provide all necessary surveying and layout for the installation of all striping and pavement markings after application of slurry seal or asphalt concrete. The Contractor shall remove any temporary markings on gutters, sidewalks, or other concrete surfaces.

All "cat-tracks" for striping, marker and legend layouts shall be approved by the City's Representative, prior to placement of any permanent striping. Traffic striping layout alignments and spotting shall not vary more than ½ inch in 50 feet. All lines shall be clean and sharp as to dimensions. Unapproved stencils or mistakes will need to be re-slurried before repainting of legends and stripings.

Forty-eight (48) hours in advance, the Contractor shall request inspection and approval from the Engineer for the Contractor's layout of all striping and pavement markings. Contractor shall not apply paint until such time that the Engineer approves layout for the specified location.

314-4.3 Painted Traffic Striping and Curb and Pavement Markings. *REVISE as follows:*

314-4.3.5 Application. *After the last paragraph, ADD the following text:*

All Traffic Striping and Pavement Markings shall be considered to be installed on new pavement surfaces and shall be applied in two applications at the rates shown in Table 314.4.3.5 (A).

Two coats of paint, placed at least seven (7) calendar days apart, shall be required on all traffic stripes and pavement legends. The first coat shall be scheduled in advance and placed within 3 calendar days after the slurry seal or asphalt concrete is applied.

The second coat of paint shall be placed not earlier than the 7th calendar day after and not later than the 10th calendar day after the first coat has been placed.

Raised Pavement Markers shall be installed as part of the second coat of striping. Upon acceptance, all installed pavement markers must be clean, visible, and free of any paint and/or slurry. The Contractor shall be responsible for removal of all plastic pavement tabs at the end of the project.

The Contractor shall repaint traffic striping or legends damaged during utility adjustment work.

314-4.3.7 Payment. *DELETE in its entirety, and REPLACE with the following text:*

All payment for **Traffic Striping, Markings and Markers** shall be made at the **Lump Sum (LS)** bid price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing temporary striping, permanent striping, legend markings, arrows, raised pavement markers, traffic signs, etc., as specified in the Caltrans Standard Specifications and these specifications, and as directed by the Engineer and no additional compensation will be made therefore.

Survey to produce as-built plans for reinstallation of striping and pavement markings shall be the responsibility of the Contractor and shall be included in the Lump Sum price bid for the Traffic Striping, Markers and Markings and no additional compensation shall be made thereafter.

Installation of striping and pavement markings on Northwood, Southwood, Eastwood, and Westwood loop as shown in plans and details in Appendix C is included in the Lump Sum price bid for the Traffic Striping, Markers and Markings and no additional compensation shall be made thereafter.

314-4.3.8 Payment Reduction for Non-Compliance. *ADD the following new Subsection 314-4.3.8:*

Payment to the Contractor will be reduced for failing to place either first coat or second coat of paint, complete in place, following resurfacing within the time limits described by these Special Provisions, unless otherwise explicitly authorized by the Engineer.

Payment to the Contractor for Traffic Striping, Markings and Markers shall be reduced by Five Hundred Dollars (\$500.00) for each and every calendar day's delay in

completing the striping work as required by the Special Provisions.

Payment Reduction for Non-Compliance is separate from and in addition to the requirements of Section 6-9, Liquidated Damages as specified in the Special Provisions.

314-5 PAVEMENT MARKERS. *REVISE as follows:*

314-5.1 General. *After the last paragraph, ADD the following text:*

Hot-melt bituminous adhesive shall be used for the installation of all pavement markers, in accordance with Section 214-7.3 of the Standard Specifications.

Two-way blue pavement markers shall be installed in the street at each existing fire hydrant location.

314-5.6 Payment. *DELETE in its entirety, and REPLACE with the following text:*

All costs for Pavement Marker Installation shall be considered as included in the lump sum price bid for Traffic Striping, Markings and Markers and no additional compensation shall be allowed therefore.

SECTION 600 – ACCESS

REVISE as follows:

600-2 VEHICULAR ACCESS. *DELETE in its entirety and SUBSTITUTE with the following:*

Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access for reasonable periods of time. If backfill has been completed to the extent that safe access may be provided, and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

Safe, adequate, continuous and unobstructed vehicular access shall be maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, bus stops, hospitals, etc., unless otherwise approved by the Engineer.

During non-working hours or when work is not scheduled, all roadway lanes shall be returned to their full traffic use by backfilling and paving open trenches unless otherwise approved by the Engineer. At the end of the workday, the Contractor shall remove all Traffic Control Devices not in use.

The Contractor shall replace vehicle loop detectors damaged by the Contractor's operations, at its own expense within 48 hours of the damage. The Contractor shall replace existing loop detectors, shown on the plans to be replaced, within 48 hours from when they are removed from service.

Should the Contractor fail to replace the vehicle loop detectors within 48 hours from when they are damaged or removed from service, or the installed signal loops are not functional, the Agency, at its option and at the Contractor's sole cost and expense, may install such temporary detection methods as may be necessary. The Agency will deduct cost of such work from any monies due the Contractor. Failure of the Agency, however, to install such temporary detection methods, shall not relieve the Contractor of his full responsibility for public safety per 7-10 of the Standard Specifications and the Special Provisions.

If the Contractor proposes temporary alternate detection methods, video or wireless, the Contractor shall provide submittals of the alternate methods for acceptance by the Engineer in accordance with 2-5.3 of the Standard Specifications and the Special Provisions. The cost for providing all temporary detection methods shall be as included in the various items of Work and no additional compensation will be allowed therefor.

600-3 PEDESTRIAN ACCESS. *DELETE in its entirety and SUBSTITUTE with the following:*

Safe, adequate, continuous and unobstructed pedestrian access shall be maintained to sidewalks, cross walks, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, hospitals, etc.,

unless other arrangements satisfactory to the Agency have been made by the Contractor and accepted by the Agency. Pedestrian access and paths shall meet federal, state and Agency ADA requirements.

ADD:

600-4 CONSTRUCTION PARKING CONTROL.

The Contractor shall control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, owners operations, or construction operations, and monitor parking or construction personnel private vehicles by maintaining free vehicular access to and through parking areas and prohibit parking on or adjacent to access roads, or in non-designated areas.

ADD:

600-5 SITE ACCESS.

When entering or leaving roadways carrying public traffic, contractors' equipment, whether empty or loaded, shall in all cases yield to public traffic.

The Contractor shall comply with the following City of Irvine truck route restrictions:

DESIGNATED TRUCK ROUTES - ORD. NO. 92-09

<u>Name of Street</u>	<u>Portion Designated</u>
a) Alton Parkway	Sand Canyon Avenue to Irvine Boulevard
b) Bake Parkway	Rockfield Boulevard to easterly City limit
c) Barranca Parkway	Red Hill Avenue to Jamboree Road
d) Campus Drive	Jamboree Road to MacArthur Boulevard
e) Irvine Boulevard	Culver Drive to Jeffrey Road
f) Irvine Boulevard	Alton Parkway to easterly City limit
g) Jamboree Road	Warner Avenue to MacArthur Boulevard
h) Laguna Canyon Road	Alton Parkway to State Route 133
i) Laguna Freeway (133)	
j) MacArthur Boulevard	Daimler Street. to Campus Drive
k) MacArthur Boulevard	Jamboree Road to Ford Road
l) Main Street	Jamboree Road to westerly City limit
m) Red Hill Avenue	Barranca Parkway to San Diego Fwy. (I-405)
n) Rockfield Boulevard	Bake Parkway to easterly City limit
o) Sand Canyon Avenue	San Diego Fwy. (I-405) to northerly City limit
p) San Diego Fwy. (I-405)	
q) Santa Ana Fwy. (I-5)	

RESTRICTED ROUTES, SEVEN TON (14,000 POUNDS) GROSS WEIGHT - ORD. NOS. 92-09 AND 98-16

<u>Name of Street</u>	<u>Portion Designated</u>
a) Campus Drive	Jamboree Road to University Drive
b) Culver Drive	Santa Ana Fwy. (I-5) to northerly City limit
c) Jeffrey Road	Irvine Center Drive to Santa Ana Fwy. (I-5)
d) Jeronimo Road	Goodyear to 400 feet westerly of Bake Pkwy.
e) Toledo Way	Goodyear to 400 feet westerly of Bake Pkwy.
f) Trabuco Road	400 feet easterly of the northbound Santa Ana Freeway off-ramp near Culver Drive and the easterly City limits
g) Walnut Avenue	Harvard Avenue to Culver Drive
h) Harvard Avenue	Walnut Avenue to Irvine Center Drive

THREE TON (6,000 POUNDS) GROSS WEIGHT - ORD. NO. 92-09

<u>Name of Street</u>	<u>Portion Designated</u>
a) Bonita Canyon Road/Shady Canyon	Newport Coast Drive to Sunnyhill
b) Culver Drive	Michelson Drive to Bonita Canyon Road
c) University Drive	Ridgeline Drive to Harvard Avenue

ADD:

600-6 PUBLIC NOTIFICATION.

The Contractor shall submit a draft version of a Construction Notice flyer for approval by the City at least two weeks prior to the first notification. The Notices/Flyers shall be hand delivered to all businesses and residents affected by construction activities.

Temporary "No Parking-No Driving" signs, as required, shall be posted at least 72 hours in advance of the work on each street. The signs shall be placed no more than 150 feet apart on each side of the street and at shorter intervals if conditions warrant, as determined by the Engineer. These signs shall never be nailed or stapled to living trees. Signs that are removed by wind, vandals, or other reasons, before the re-opening of the street, shall be re-posted by the Contractor. The Contractor shall provide the signs and will be responsible for adding the dates and hours of closure to the signs, removal of the signs, and furnishing and placing of barricades, if necessary, for posting of the signs as applicable to each location. All signs shall be removed within 24 hours after work is complete. In the event that temporary no parking must be rescheduled due to weather conditions or other unforeseen circumstances, all signs shall be removed within two hours of notification by the Engineer, and reposted per the requirements of this section.

The following information shall appear on each posted "No Parking" sign:

- (a) Date sign is in effect. **NO MULTIPLE DATES ARE ALLOWED.**
- (b) Time-period sign is in effect.
- (c) Reason for posting (such as cold milling, asphalt paving, slurry seal, etc.).
- (d) Signs shall not be posted on private property.
- (e) Signs shall be posted within the parkway area or as close to the roadway as practical.
- (f) Signs may be posted on any light standard within the parkway, except that, in the absence of such items, signs shall be attached to traffic barricades.

Time period and/or date(s) appearing on the sign shall include only the period during which the operations are to occur. Signs shall not be reused for different locations. Unnecessary parking restrictions will not be allowed. Contractor shall obtain the Inspector's approval of information on the signs prior to posting.

All costs for posting and maintaining temporary "No Parking" signs shall be included in the lump sum bid item for Traffic Control, and no additional compensation will be made.

Upon receiving engineer's approval, existing parking restriction signs (due to street sweeping) adjacent to work areas receiving temporary "no parking" signs may be covered to allow affected residence parking closer to their homes.

A minimum of ten (10) calendar days prior to starting scheduled work and re-scheduled work, the Contractor shall distribute to every residence and business affected by the work, an advisory note in the form of an 8-1/2" by 11" flyer. This flyer will be supplied by the City of Irvine, and Contractor is responsible for printing and reproduction, as needed. Under no circumstances will these fliers be deposited inside the mailboxes used by the U.S.P.S.

The Contractor shall provide the Engineer or City Representative the list of streets that have received the 10-day advisory note for verification. Residents living on private streets that are tributary to a public street to receive slurry seal or rehabilitation shall also receive 10-day notification per the notification area map.

Forty-eight (48) hours prior to starting scheduled work and re-scheduled work, the Contractor shall distribute to every resident and business affected by the work an advisory notice in the form of a door-knob card. This notice shall include the date, starting time, approximate completion time, and telephone number of the Contractor's office for citizens' questions related to their on-street parking away from their homes. Should the City discover that the notice was not distributed in time, the City shall direct the Contractor to stop work for the balance of the day and remove all traffic control, including uncovering the raised pavement markers. If the Contractor fails to meet the notified schedule, he shall re-schedule the work and re-distribute the advisory notice. Under no circumstances will these advisory notices be deposited inside the Mailboxes used by the U.S.P.S.

At all entrances to subdivisions where internal circulation is restricted, the Contractor shall post "ROAD CLOSED AHEAD" signs.

The City or its representative may issue a "Stop Notice" at any time if the CONTRACTOR fails to meet any requirement of this section or any other section of the specifications. In the event City forces or its representative are required to correct any signing problems due to the Contractor's failure to adhere to this section, the costs of said work will be determined using overtime rates and shall be deducted from the final payment due the contractor."

Full compensation for conforming to the requirements for **Public Notification**, including furnishing all labor, tools, equipment, materials and incidentals required for doing all the work involved in furnishing and delivering the notices, as specified in the these Special Provisions, and as directed by the Engineer, shall be considered as included in the contract price paid for other items of work and no separate compensation will be allowed therefore.

SECTION 601 – WORK AREA TRAFFIC CONTROL

REVISE as follows:

601-1 GENERAL. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall provide and maintain all construction area traffic controls in accordance with Part 6 of the Standard Specifications, the latest version of the California Manual of Uniform Traffic Control Devices (CA MUTCD), and Work Area Traffic Control Handbook (WATCH), and these Special Provisions.

Portable delineators (traffic cones are not allowed) which conform to the current California Manual of Uniform Traffic Control Devices (CA MUTCD) shall be spaced as necessary for proper delineation of the travel way. The spacing between delineators shall not exceed 50 feet. The minimum lane transitions shall be a 50 to 1 taper unless otherwise shown on the plans. Double base delineators will be required.

If the portable delineators are damaged, displaced or are not in an upright position, from any cause, said portable delineators shall immediately be replaced or restored to their original location, in an upright position, by the Contractor.

Where construction detours and signing conflict with existing signing, the Contractor shall cover existing signs in a manner approved by the Agency's Representative. The Contractor shall also provide temporary traffic delineation at the conclusion of each working day, if not sooner, as directed by the Agency's Representative, for any centerline, painted median or lane line which is obliterated by construction.

The Contractor shall provide temporary delineation as directed/accepted. Temporary delineation shall include removal of conflicting markings by accepted means; installation and removal of temporary centerlines or lane lines, detour signing, barricading; and replacement of traffic lines and markings in their proper locations upon termination of the detour. Conflicting existing and temporary striping, as required for traffic control during construction, shall be removed by the Contractor by methods accepted by the Engineer. Blacking out the pavement will not be allowed. Temporary reflective striping tape may be used, except that it shall not be applied to final asphalt surfaces. Tape shall be removed from temporary surfaces prior to placement of additional asphalt.

The Contractor shall maintain a 24-hour emergency service to remove, install, relocate, and maintain warning devices and shall furnish to the Agency's Representative, names and telephone numbers of three persons responsible for this emergency service. In the event the Contractor does not promptly respond when notified, the Agency may make corrections at Contractor's expense.

Each workday, the Contractor shall ensure traffic control is in place prior to starting construction.

Should the Contractor appear, in the opinion of the Engineer, to be lacking in providing adequate warning devices and protective measures as above provided, the Engineer

may direct attention to the existence of a hazard, and the necessary warning and protective measures shall be furnished and installed by the Contractor, at his/her expense. Should the Engineer point out the inadequacy of warning and protective measures, such action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate its obligation to furnish and pay for these devices.

The Contractor shall notify local Police and Fire Departments of its intent to begin work at each location at least ten (10) days before work is to begin. The Contractor shall cooperate with local authorities relative to handling traffic through the area. The Contractor shall also coordinate with OCTA to ensure the safe operation of buses and access to bus stops in the construction area.

Work that interferes with public traffic shall only be performed during the hours specified for lane closures in Section 601-6.6.

The Contractor shall maintain access to all driveways at all times.

The Contractor shall coordinate his weekly construction schedule to avoid conflicts with trash collection. For questions regarding trash collection schedules, contact WASTE MANAGEMENT OF ORANGE COUNTY, at (949) 451-2600. Waste Management Contacts: Dave Clark (949)451-2624, Fernando Navarro (949)451-2600 ext. 653-office and (949)254-1893-cell phone.

The Contractor shall research where schools may be impacted by the project. It shall be Contractor's responsibility to coordinate the work with each school administrative office and to maintain ingress-egress to the school parking area at all times.

The Contractor shall comply with all local sound and noise level rules, regulations, and ordinances which apply to all aspects of the work performed pursuant to this contract.

At the pre-construction meeting, Contractor shall provide the City with samples of the "No Parking-No Driving" signs to be posted on affected streets.

At the pre-construction meeting, Contractor shall provide City with samples of the "48 Hour Door Card" Construction Notice to be delivered to residences on affected streets.

601-2 TRAFFIC CONTROL PLAN (TCP). *DELETE in its entirety and SUBSTITUTE with the following:*

601-2.1 General.

When required by this section or any other section of the Special Provisions, the Contractor shall submit a Traffic Control Plan (TCP) to the Agency for approval prior to commencing any Work within the area requiring the TCP. The TCP shall be prepared and stamped by a professional civil or traffic engineer registered with the State of California.

The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name of the Registered Engineer, approval block for each jurisdictional

agency, north arrow, sheet number, and total number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation.

The Contractor shall legibly indicate the following information on a reproducible drawing.

- (a) All lane closures and/or detours anticipated during construction.
- (b) Location and type of temporary signage, striping and delineation.
- (c) Working hours for which lane closures are in effect.
- (d) Any other special traffic control requirements.

The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets; either 8 ½" x 11", 11" x 17", or 24" x 36", as dictated by the length of work.

Contractor shall submit a minimum of three (3) hard copies of the TCP in accordance with Section 2-5.3 and shall allow 15 Working Days for the first Agency review and 10 Working Days for each subsequent review.

The Contractor shall submit two (2) prints of approved drawings to Agency Representative, and retain one (1) print at construction site.

601-2.2 Required TCP Submittals.

TCP submittal to the Agency for review, shall be required for any of the following actions or events:

- a) Any lane closure on any Arterial street identified in Appendix B.
- b) Contractor proposes complete closure of all traffic in both directions for a particular street segment, except Residential streets identified in Appendix B.
- c) Contractor proposes complete closure of all traffic for one direction of traffic on a two-way street segment, except Residential streets identified in Appendix B.
- d) Contractor proposes lane closures that do not provide for at least one 12-foot wide lane in each direction of travel for any street segment.
- e) Contractor proposes lane closures outside of the working hours stated in Section 601-6.6.
- f) Any construction activity or sequence which requires special lane closures and/or temporary traffic control, or for which the standard traffic control scenarios of the CA MUTCD or WATCH do not adequately address, as determined by the Engineer.

601-2.3 Payment.

Payment for **Traffic Control Plans** shall be per the **Lump-Sum (LS)** price bid and shall include all costs for drafting, designing, printing, submitting for City Approval, and

revising plans and all other work effort required to obtain all necessary permits from the City of Irvine and all other agencies. The City of Irvine will waive its encroachment permit fee; however, permit fees of other agencies shall be reimbursed to the Contractor at Cost Only with no additional markup allowed. The Contractor shall comply with the requirements specified by each license or permit.

The City shall only reimburse the contractor for another city's Traffic Control / Encroachment Permit fees and original plan check fees. Fees incurred due to extra plan checks shall be the sole responsibility of the contractor.

601-3 PAYMENT. *MODIFY to ADD the following:*

The contract Lump Sum price paid for **Traffic Control** includes full compensation for furnishing all labor, materials, tools, equipment and incidentals and doing all the work involved in all temporary traffic control related work involving placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of traffic control system, complete in place, temporary Asphalt Concrete including installation and removal; all associated temporary signing and striping; flashing arrow signs; flagging and/or flagger costs; and project notifications, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

ADD:

601-4 STREET CLOSURE, DETOURS, BARRICADES.

Unless shown on the plans, street closures shall not be allowed.

The Contractor shall construct the proposed improvements to minimize public inconvenience. The Contractor shall provide ADA accessible pedestrian detours around construction areas.

The Contractor shall have all Traffic Control Devices properly installed prior to commencing construction and shall maintain these devices to ensure proper flow and safety of traffic while working in the street.

The contractor shall be responsible for any additional Traffic Control Devices deemed necessary by the Engineer to assure public safety at all times.

ADD:

601-5 STORAGE OF EQUIPMENT.

Unless otherwise authorized in writing by the Engineer, construction materials may not be stored in streets, roads, or highways beyond the end of each Working Day. No equipment shall be stored within limits of the acquired temporary construction easements at any time.

Construction equipment shall not be stored at the work site before its actual use on the Work nor for more than two (2) Calendar Days after it is no longer needed on the Work. Time necessary for repair or assembly of equipment may be authorized by the Agency.

Excavated materials, except that which is to be used as backfill in the adjacent trench, may not be stored in public streets, roads, temporary construction easements, or highway unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

The Contractor shall submit an equipment-staging plan for approval by the Engineer. The plan shall address the use of private property for the staging, unloading, loading, and storing of equipment. The Contractor shall obtain an agreement from private property owners prior to the start of the project. The agreement shall release and hold the Agency, the Engineer, the Agency Representative and their consultants harmless from claims for damages. Failure to file a plan or obtain written approval from private property owners is considered a breach of Contract and subject to all remedies and enforcement procedures specified in the Contract Documents.

ADD:

601-6 TRAFFIC REGULATIONS.

601-6.1 General.

Furnish, install and maintain Traffic Control Devices, equipment, materials, and other safeguards to provide safe and effective work areas, and to warn, control, protect and expedite vehicular and pedestrian traffic.

On daily basis, remove temporary traffic delineation, signage and other devices when no longer required. Restore areas to original or to specified conditions.

601-6.2 Related Requirements.

Traffic control work and Traffic Control Devices for construction shall conform to the latest edition of:

- a) MUTCD
- b) Work Area Traffic Control Handbook (WATCH manual)
- c) Standard Specifications
- d) O.S.H.A. requirements
- e) California Vehicle Code

601-6.3 Construction Area Signs.

The Contractor shall:

- a) Use only signs that conform to the dimension, color, legend, reflectorization and lighting requirements of the current WATCH, MUTCD and the Contract Documents.
- b) All sign panels shall be the product of a commercial sign manufacturer, but need not be new. Used sign panels clean and in good repair, as determined by the Agency Representative, may be used.

- c) Sign panels for portable signs may be metal, cotton drill fabric, flexible industrial nylon fabric or other approved fabric.
- d) Temporary stop signs shall have a minimum clearance of seven (7) ft. from bottom of sign to existing ground or pavement.
- e) Further requirements as discussed in the Contract Documents.

601-6.4 Flaggers.

The Contractor shall provide flaggers as deemed necessary by the Engineer to give adequate warning to traffic or to the public of any dangerous conditions to be encountered, and employ only flaggers trained in flagging fundamentals and procedures referred to in the "Flagger Handbook" available on the Internet at the following web site: <http://www.dot.ca.gov/hq/construc/flagging/flaggerhandbook2007.pdf>.

Payment for flagging is considered as included in the various items of work and no additional compensation will be allowed therefor.

601-6.5 Temporary Closure of Existing Traffic Lanes.

Unless the traffic control, working hours and lane requirements are modified in the Special Provisions, the following requirements shall be followed:

- a) When permitted by the Engineer, one (1) lane on each roadway adjacent to the working area may be closed to public traffic. Use of reflective or lighted traffic delineators to direct traffic away from excavations or other obstructions will be considered as a lane closure.
- b) A minimum of one (1) lane of traffic, twelve (12) feet wide, fourteen (14) feet wide if a lane is adjacent to an outside curb, in each direction, shall be maintained through the work area at all times.
- c) A minimum of two (2) lanes of traffic, each being twelve (12) feet wide, fourteen (14) feet wide if a lane is adjacent to an outside curb, in each direction, shall be maintained through the work area at all times when the work area is within a major arterial highway unless otherwise approved.
- d) When work is in progress within three (3) feet of a lane being used by public traffic, Contractor shall close the lane adjacent to the work. Reflective or lighted traffic delineators shall be placed to direct public traffic around the construction area in accordance with the requirements of this section. During non-working hours or when work is not in progress, position and maintain reflective traffic delineators in the 1 to 1-1/2 foot width of the existing traffic lane adjacent to the work.

All Traffic Control Devices used between dusk and 6:00 a.m. shall be lighted or reflectorized. Agency approved arrow board(s) shall be used to direct public traffic on all roads.

Prior to the start of each work day, the Contractor shall perform all necessary work incidental to and commensurate with the proper signing, detouring, barricading, etc., that is

required for that particular day's schedule of operations. No construction shall be permitted until such signing and detouring operations have been completed.

601-6.6 Working Hours and Lane Requirements

When working on arterial streets, the Contractor shall provide for at least one twelve-foot (12') wide traffic lane for each direction of travel at all times.

Clearances from traffic lanes shall be five (5) feet to the edge of any excavation and two (2) feet to the face of any curb, pole, barricade, delineator, or other vertical obstruction.

One four-foot (4') wide paved pedestrian walkway shall be maintained in the parkway area on each side of all streets, except as specifically exempted by the Engineer. The clearance from the pedestrian walkway to any traffic lane shall be five feet (5').

When working on arterial streets with designated bike lanes, the Contractor shall provide an 8-foot-wide bike lane in each direction at all times or an alternate bike lane detour.

When working on arterial or collector streets, the Contractor shall maintain access to all driveways and intersections. For this purpose, the Contractor shall leave a ½ of the driveway/intersection open to allow vehicle access. The Contractor shall be responsible for returning to complete the remainder when the slurried portion is accessible.

The WORK shall be performed during the following hours when traffic control is required:

a) Local Streets, Parking Lots and Off-Street Bike Trails (Appendix B).

Work on residential streets, parking lots and off-street bike trails shall be permitted Monday through Friday between the hours of 8:00 a.m. and 4:00 p.m. Installation of traffic control shall start no sooner than 8:00 a.m. Spreading of the last load of slurry shall be completed by 1:00 p.m. or as determined by the City Representative. Spreading of the last load of A.C. shall be completed by 2:00 p.m. or as determined by the City Representative. Completion of work and the removal of all traffic control shall be completed by 4:00 p.m.

b) Arterial and Collector Streets (Appendix B).

Work on arterial and collector streets shall be permitted Monday through Friday between the hours of 9:00 a.m. and 3:00 p.m. Installation of traffic control shall start no sooner than 9:00 a.m. Spreading of the last load of slurry/A.C. shall be completed by 1:00 p.m. or as determined by the City Representative. Completion of work and the removal of all traffic control shall be completed by 3:00 p.m.

c) Request for Night Work – Requires Separate City Approval.

Contractor requests for nighttime work for streets shall be submitted to the Engineer for review and approval. All requests for nighttime work shall cite the reason for the request and shall detail the reason why the work cannot be performed during regular weekday work hours.

For approved requests, installation of traffic control shall start no sooner than 8:00

p.m. Spreading of the last load of A.C. shall be completed by 2:00 a.m. or as determined by the City Representative. Completion of work and the removal of all traffic control shall be completed by 4:00 a.m. Construction activities that may be given consideration for such requests are the following:

1. Roadway cold milling of non-residential areas.
2. Roadway AC Paving of non-residential areas.
3. Utility adjustments for non-residential areas, provided that noise levels do not also create any other unacceptable disturbance.
4. Traffic Loop installation.
5. Traffic Striping, Markings and Markers.
6. Street Sweeping.
7. Other construction activities that will provide for reduced inconvenience to the public or general traffic.

For rejected requests, the Contractor shall promptly schedule the work to occur within regular Weekday Hours. The City shall have sole discretion in approving Weekend Work Requests and rejection of such requests shall not be cause for any claim for additional compensation.

d) Request for Weekend Work – Requires Separate City Approval.

Contractor requests for weekend work for streets shall be submitted to the Engineer for review and approval. All requests for weekend work shall cite the reason for the request and shall detail the reason why the work cannot be performed during regular weekday hours. Construction activities that may be given consideration for such requests are the following:

1. Slurry Sealing of non-residential areas.
2. Other construction activities that will provide for reduced inconvenience to the public or general traffic.

For approved requests, installation of traffic control shall start no sooner than 7:00 a.m. Spreading of the last load of slurry shall be completed by 2:00 p.m. or as determined by the City Representative. Spreading of the last load of A.C. shall be completed by 3:00 p.m. or as determined by the City Representative. Completion of work and the removal of all traffic control shall be completed by 5:00 p.m.

The Contractor shall be responsible for all overtime inspection charges as a result of approved weekend work. The cost for overtime shall be deducted from monies due to the Contractor for work performed.

For rejected requests, the Contractor shall promptly schedule the work to occur within regular Weekday Hours. The City shall have sole discretion in approving Weekend Work Requests and rejection of such requests shall not be cause for any claim for additional compensation.

The Contractor shall notify and coordinate traffic control removal with City Representative.

The Contractor shall be responsible for allowing sufficient time during contract period to complete inspections and any corrections. Each day beyond the time prescribed to complete the contract will be subject to assessment of liquidated damages. The City Representative shall determine if the repairs and/or corrections are in substantial compliance with the Contract documents.

601-6.7 Closure Schedule.

The Engineer shall be provided a list of any street lane closures, ramp closures, trail closures, sidewalk closures or detours for review and acceptance at least three (3) weeks advance of the closure.

Contractor shall submit a written schedule of planned closures utilizing the closure schedule request form, furnished by the Engineer. The closure schedule shall show the number of lanes, locations and times of the proposed closures, a precise description of work to be performed. Closure schedules submitted to the Engineer with incomplete or inaccurate information will be rejected and returned for correction and resubmittal. The Contractor will be notified of disapproved closures or closures that require coordination with other parties as a condition of approval.

Upon approval of the closure schedule by the Engineer and at least three (3) Working Days in advance of closing a lane, the Contractor shall notify the Police, Fire, Orange County Transportation Authority (OCTA) bus service, the Agency Representative and all other affected jurisdictional agencies, and comply with their requirements.

Closure schedule amendments, including adding additional closures, shall be submitted by noon to the Engineer, in writing, at least five (5) Working Days in advance of a planned closure. Approval of closure schedule amendments will be at the discretion of the Engineer.

The Engineer, the Police, Fire, Orange County Transportation Authority (OCTA) bus service, and all other affected jurisdictional agencies shall be notified of cancelled closures two (2) Working Days before the date of closure

The Contractor shall notify the City of Irvine by email four (4) Working Days prior to commencing any work within 250 feet of any signalized intersection (measured from the nearest cross street curb), implementing any road closure, and/or implementing any detour of traffic. Email notifications shall be sent to the Engineer and the following email address: roadworkcoordination@cityofirvine.org.

Closures that are cancelled due to unsuitable weather may be rescheduled at the discretion of the Engineer.

601-6.8 Late Reopening of Closures and Required Contingency Plan.

If a closure is not reopened to public traffic by the specified time, work shall be suspended in conformance with the provisions in 6-3 of the Special Provisions. No further closures shall to be made until the Engineer has accepted a contingency plan, submitted by the Contractor that will ensure future closures will be reopened to public traffic at the specified time. A detailed contingency plan shall be prepared and submitted to the Engineer within one business day of the Engineer's request. The Engineer will have two (2) Working Days to accept or reject the Contractor's proposed contingency plan. The Contractor will not be entitled to compensation for the suspension of work resulting from the late reopening of closures.

601-6.9 Compensation.

The Engineer shall be notified of delays in the Contractor's operations due to the following conditions:

- a) The Contractor's proposed closure schedule is denied and his planned closures are within the time frame allowed for closures in the Special Provisions, except that the Contractor will not be entitled to compensation for amendments requested by the Contractor to the closure schedule that are not approved.
- b) The Contractor is denied a confirmed closure.

If, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of these conditions, and the Contractor's loss due to that delay could not have been avoided by rescheduling the affected closure or by judicious handling of forces, equipment and plant, the delay will be considered a right of way delay and will be compensated in conformance with the provisions in 2-8 of the Standard Specifications and the Special Provisions.

Should the Engineer direct the Contractor to remove a closure before the time designated in the approved closure schedule, delay to the Contractor's schedule due to removal of the closure will be considered a right of way delay and compensation for the delay will be determined in conformance with the provisions in 2-8 of the Standard Specifications and these Provisions.

601-10 AUTHORITY OF AGENCY REPRESENTATIVE.

Provisions of this section may be modified or altered if, in the opinion of the Agency Representative, public traffic will be better served and work expedited.

601-10.1 Execution.

The Contractor shall field check all temporary traffic control signs, barricades, and other devices at least three (3) times every day, including Saturdays, Sundays and holidays to insure their proper maintenance and conformance to the Contract Documents and detailed instructions by the Agency Representative.

Should Contractor fail to properly place and/or maintain delineated lane closures or work areas, the Agency, at its option and at Contractor's sole cost and expense, may place delineation, barricades, or other devices, as may be necessary, to protect the public.

Agency may in its discretion withhold the cost of such work from any monies due the Contractor at an amount equal to the rates shown below:

Delineation

Delineator	\$2.00/day plus-labor & equipment
Lighted Barricade	\$5.00/day plus-labor & equipment
8 Foot Wood Barricade	\$7.50/day plus-labor & equipment
Temporary Signs	\$25.00/day plus-labor & equipment
Type III Barricade	\$10.00/day plus-labor & equipment

Labor (2 Hour Minimum) - Regular Time

Lead Street Maintenance Technician	\$52.88
Street Maintenance Technician	\$40.82
Equipment Operator I	\$46.14
Equipment Operator II	\$49.74
Street Maintenance Supervisor	\$62.99
Street Superintendent	\$79.80

Equipment

Arrow Board	\$15.00/hour
Pickup	\$10.00/hour
Sweeper	\$45.00/hour
5-Yard Dump	\$25.00/hour
Loader	\$25.00/hour
Water Truck	\$25.00/hour
1-Ton Truck	\$10.00/hour

Agency shall have no obligation to Contractor with respect to Agency's decision whether or not to exercise Agency's options pursuant to this subsection.

ADD:

601-11 PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS).

Four working days prior to working on any portion all collector and arterial streets, the Contractor shall place two (2) solar powered Portable Changeable Message Signs (PCMS) at both ends of the work zone and two (2) solar powered PCMS at each collector and arterial street that crosses the work zone advising drivers to use alternate routes and displaying the date of the work to be done.

Portable changeable message signs shall be furnished, placed, operated, and

maintained as designated by the Engineer in conformance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the State Standard Specifications and these special provisions. The Contractor shall furnish **ten (10)** Portable Changeable Message Signs (PCMS). PCMS shall be in place two (2) weeks prior to start of construction.

The Engineer will determine the exact message wording and location. The Contractor may be required to update the changeable message daily, depending on the type of work performed. The Contractor shall be responsible for maintaining, relocating, programming, and re-programming Changeable Message Signs as specified and as directed by the Owner's Representative.

The changeable message letters shall have sufficient brightness so as to be fully visible both at night and in bright daylight. The City shall have sole discretion to determine acceptable models from submittals provided by the Contractor.

601-11.1 Payment.

Full compensation for conforming to the requirements for **Portable Changeable Message Signs**, including furnishing all labor, tools, equipment, materials and incidentals required for doing all the work involved in furnishing, installing, maintaining, relocating, changing sign message (regardless of the number of times directed by the Engineer), replacing, repairing, and when no longer required, removing of all PCMS as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer, shall be considered as included in the Contract **Lump Sum** price paid for **Traffic Control** and no separate compensation will be allowed therefor.

601-12 FLASHING ARROW SIGNS.

Flashing arrow sign shall be mounted on a truck or on a trailer and shall be capable of operating while the vehicle is moving or as directed by the Engineer. Signs mounted on the cab of a truck shall be mounted to provide a minimum of 7 feet between the bottom of the sign and the roadway. Signs mounted on a trailer, or on anything other than the cab of a truck, shall be mounted to provide a minimum of 8 feet between the bottom of the sign and the roadway.

The total weight of trailer mounted flashing arrow sign including the trailer, sign, power source and other components shall not exceed 1,500 pounds and the height of the level trailer bed shall be no higher than 21 inches above the roadway. The trailer shall be equipped with a minimum of 3 leveling jacks.

Electrical energy to operate the sign shall be obtained from the vehicle on which the sign is mounted. The supply of electrical energy shall be capable of operating the sign in the manner specified. The electronic circuitry shall provide between 30 and 45 complete operating cycles of the sign per minute in each of the modes specified.

Alternative types of lamps may be used in flashing arrow signs if visibility is equal to the specified lamps. Each type AX flashing arrow sign shall be a minimum of 2 feet high and 4 feet wide, and shall be furnished with flat black enamel. A minimum of 13 No.

4414AX 12-volt, yellow or amber lamps shall be installed in the panel. The lamp configuration shall be for 3 arrowheads or an arrow shaft with 2 arrowheads, one pointing in each direction on the face of the sign with a minimum of 5 lamps forming each arrowhead. Each lamp shall be provided with a visor.

The lamp shall be activated by a switch on a control panel and shall be controlled by electronic circuitry to provide a minimum of 4 selectable modes of operation as follows:

Pass Left Mode - Sequencing of lighted arrowheads or sequencing the lamps forming the arrow shaft and arrowhead to the left or a flashing left arrow with the lamps in the arrow shaft and arrowhead flashing on and off simultaneously.

Pass Right Mode - Sequencing of lighted arrowheads or sequencing the lamps forming the arrow shaft and arrowhead to the right or a flashing right arrow with the lamps in the arrow shaft and arrowhead flashing on and off simultaneously.

Simultaneous Mode - Either the outside arrowheads pointing in opposite directions are continuously illuminated, except for the center lamp forming each arrowhead, while the arrow shaft lamps flash on and off simultaneously or the outside arrowhead pointing in opposite directions and the arrow shaft lamps all flash simultaneously to indicate passing on either side.

Travel Mode - Travel or caution mode shall flash in a manner not resembling any other mode.

Full compensation for conforming to the requirements of this section shall be considered as part of Bid Item **Traffic Control** and no additional compensation will be allowed therefor.

SECTION 701 – CONSTRUCTION

701-17 TRAFFIC SIGNAL CONSTRUCTION.

701-17.6.3 Inductive Loop Detectors. *REVISE as follows:*

701-17.6.3.1 General. *REPLACE entire subsection with the following text:*

All traffic signal detector loop materials shall be furnished and related work performed in conformance with Section 86 "Signals, Lighting and Electrical Systems" of the State of California Standard Specifications (2010 edition) and State of California Standard Plans, (2015 edition), except as modified in these Specifications or on the Plans and City of Irvine Standards and Design Manual, Section 104. Traffic signal detector loop layout shall be per City of Irvine Section 104. Section 104 may be viewed and downloaded at: <http://www.cityofirvine.org/development-engineering/design-manuals>.

Traffic signal system shut downs will not be allowed.

The Contractor shall replace any traffic signal detector loop within 48 hours after it has been taken out of service and Contractor shall perform all necessary work to make the traffic loops and traffic signal fully functional.

Traffic loops not identified to be replaced as part of the work, shall be replaced at the Contractor's sole expense. Traffic loops identified for replacement shall be paid in accordance with Section 701-17.6.6. Traffic loops shall be replaced on streets designated for asphalt grind and overlay. Traffic loops shall be protected in place on streets designated for slurry seal and during concrete reconstruction work.

Contractor shall note that the traffic striping on Northwood, Southwood, Eastwood, and Westwood loop will be revised per the striping plan and details in Appendix C. As a result of the new striping configuration, new traffic loops will need to be installed on these streets per plans and loop details in Appendix C and standard plans included in Appendix D.

Failure to replace any traffic loop within 48 hours, as specified, shall result in a payment reduction to the contractor in accordance with Section 701-17.6.6.1.

If the Contractor proposes temporary alternate detection methods, video or wireless, the Contractor shall provide submittals of the alternate methods for acceptance by the Engineer in accordance with Section 2-5.3 "Submittals" of the Standard Specifications and the Special Provisions. The cost for providing all temporary detection methods shall be as included in the various items of Work and no additional compensation will be allowed therefore.

Should the Contractor fail to replace the signal loop detectors within the time prescribed, or the installed signal loops are not functional, the Agency, at its option and at the Contractor's sole cost and expense, may install such temporary detection methods as may be necessary. The Agency will withhold cost of such work from any monies due the Contractor. Failure of the Agency, however, to install such temporary detection methods, shall not relieve the Contractor of his full responsibility for public safety per the

Standard Specifications and these Special Provisions.

Final installation of traffic loop detectors shall not exceed six (6) inches in depth below the finished surface.

As part of the preparation work for traffic signal loop installations, prior to performing any adjacent cold milling, pavement removal or other damaging operations, the Contractor shall disconnect the existing lead-in line and note the existing loop connection configurations. No additional compensation will be allowed for the labor required to ensure the proper connection of the detector loops. Upon completion of the traffic detector loop installations the first inspection by the Engineer shall be provided at no cost to the Contractor. Should a second inspection be required due to workmanship of the Contractor, then the cost of re-inspection shall be at the Contractor's expense.

Detectors shall conform to the provisions in Section 86-5 "Detectors", of State Standard Specifications and these Special Provisions:

If any single loop is damaged the entire affected grouping of loops shall also be replaced.

Vehicle Detectors shall be of the inductive loop type.

All home run detection wires shall be located ahead of the loops.

Modified Type "E" Loops as shown in City of Irvine's standard "Loop Detection Detail" in Appendix D shall be installed in front of the limit line or crosswalk.

Bike lane loops shall be Modified Type "E" loops and may be reduced to 3 feet in diameter with a 3 foot gap between loops when installed in an exclusive bike lane.

Presence loops shall be spaced 10' apart, wired in a series format and set back one (1) foot before the lead cross walk stripe or limit line (see City of Irvine's standard "Traffic Signal Loop Detection Detail").

Loop wire shall be Type 2.

Loop detector lead-in cable shall be 2 # 16 cable, with white and black insulation.

Advanced loops shall be Type "E", 6' diameter, with one pair of DLCs per lane with one channel per advance loop. Four turns shall be provided in each loop where the DLC is less than 500 feet; otherwise five turns shall be required.

Three, Type "E" and One Modified Type "E", 6' diameter loops shall be used in all left turn pockets, with two pair of DLCs. If only one pair of DLC presently exists the Contractor shall still install two pair of DLCs and splice them to the single DLC until such time that they can be upgraded in the future per a separate project.

PVC conduit shall be per Standard Plan ES-5E, Curb Termination Detail.

All loops shall have a minimum of 2 - 1/8" clearance of sealer above loop wires

(maximum 6" clearance).

Sealant for inductive loops shall be hot rubberized asphalt sealant (State Specification 8040-61E-06) conforming to the provisions as specified in Section 95-2.09 of the State Standard Specifications.

The Contractor shall obtain approval of exact loop locations prior to final placement. The preliminary striping layout shall be performed prior to loop detector layout and loops shall be centered in the traveled portion of the lane.

Prior to project acceptance, all loops shall be meggered from the controller cabinet to verify continuity of all splices as well as inductance of loops. Continuity tests shall be witnessed by the Owner's Representative.

The contractor shall test the detector with a motor driven cycle, as defined in the California Vehicle Code, which is licensed for street use by the Department of Motor Vehicle of the State of California. The unladen weight of the vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters. Special features, components or vehicles designed to activate the detectors will not be permitted. The Contractor shall provide an operator who shall drive the motor-driven cycle through the response or detection area of the detector at not less than 7 miles per hour. The detector shall provide an indication in response to this test.

The contractor shall also test the bike loops and the modified Type "E" loops at the limit lines to detect bicycle rider per CA MUTCD Reference Bicycle Rider requirements. The Reference Bicycle Rider shall be a minimum 4ft tall person, weighing minimum 90 lbs riding on an unmodified minimum 16 inch wheel bicycle with non-ferromagnetic frame, non-ferromagnetic rims, stainless steel spokes, and headlight.

701-17.6.6 Payment. *After the last paragraph, ADD the following text:*

Payment for **Install 3' Diameter Modified Type "E", Install 6' Diameter Type E, Install 6' Diameter Modified Type "E" and Connect to DLC** shall be made at the contract unit price per **Each Item (EA)** and shall be full compensation for the furnishing of all labor, equipment, materials and performing all of the work shown on the Plans and/or specified herein, shall be considered to be included in the contract bid for each type of traffic loop required, as depicted in the Bid Schedule of these Specifications.

701-17.6.6.1 Payment Reduction for Non-Compliance. *ADD the following new Subsection 701-17.6.6.1:*

Payment to the Contractor will be reduced for failing to replace traffic signal detector loops after they have been damaged or taken out of service, complete in place, within the time limits described by these Special Provisions, unless otherwise explicitly authorized by the Engineer.

Payment to the Contractor for Install Traffic Signal Detector Loop and Connect to DLC shall be reduced by Five Hundred Dollars (\$500.00) for each and every calendar day's delay in completing the work as required by the Special Provisions.

Payment Reduction shall apply separately for each leg of each signalized intersection.

Payment Reduction for Non-Compliance is separate from and in addition to the requirements of Section 6-9, Liquidated Damages as specified in the Special Provisions.

APPENDIX A
GUARANTEE FORM

**GUARANTEE FORM
FOR
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP No. 311901
BID NO. 19-1436**

We hereby guarantee that the work we installed for this project is free from defects in material and workmanship, and that this work has been completed in accordance with the City's Special Provisions.

We agree to repair any defects in material or workmanship which may develop during the period of one year from the date of acceptance. We also agree to correct any damages resulting from the guarantee repairs. We will make such repairs and corrections at no cost to the City within fourteen (14) working days from the City's written notice.

In the event of our failure to make such repairs and corrections within fourteen (14) working days, we authorize the City to have said repairs and corrections made at our expense and we will pay the costs and charges therefore upon demand.

DATE OF ACCEPTANCE: _____

COMPANY NAME: _____

ADDRESS: _____

PHONE NUMBER: _____

SIGNATURE: _____

NAME: _____

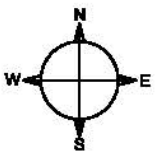
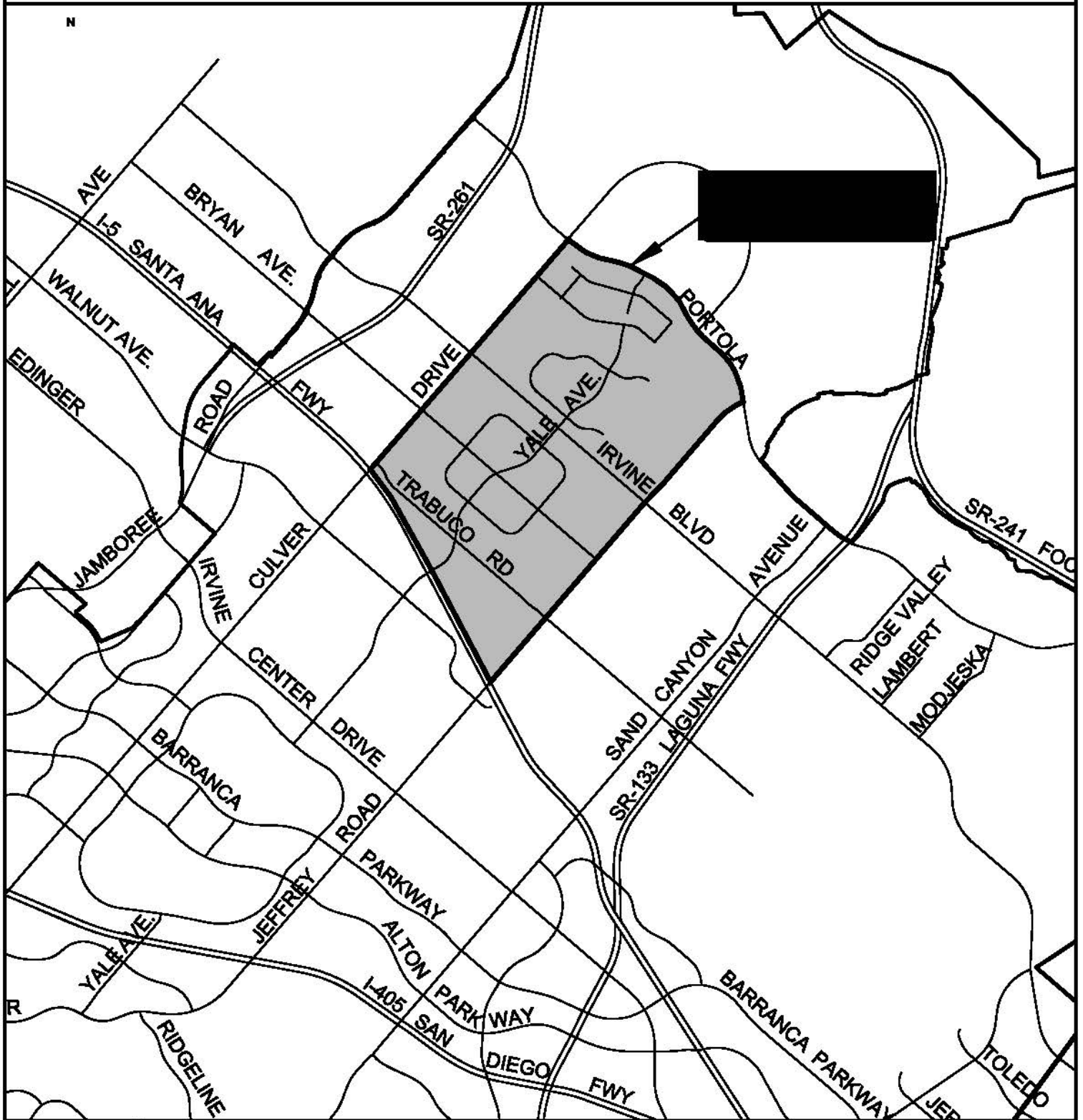
TITLE: _____

DATE: _____

APPENDIX B

- VICINITY MAP
- NORTHWOOD (ZONE 1)
- NORTHWOOD (ZONE 2)
- LIST OF ASPHALT REHABILITATION AND SLURRY SEAL
WORK LOCATIONS
- MAP OF CONCRETE RAMP CONSTRUCTION LOCATIONS

ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT FY 2018-19



VICINITY MAP



IRVINE

IRVINE

IRVINE



BRYAN

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BRYAN

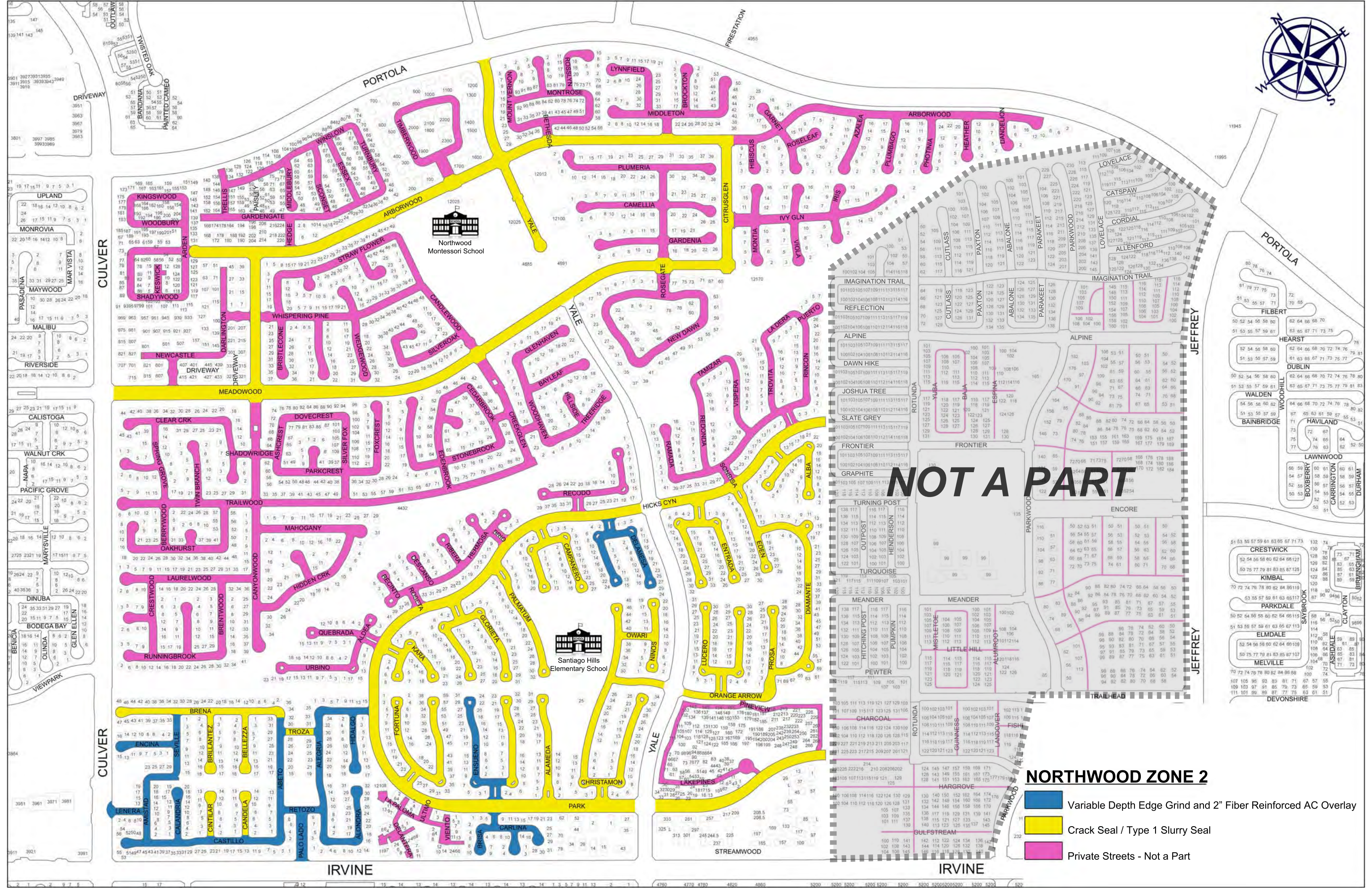
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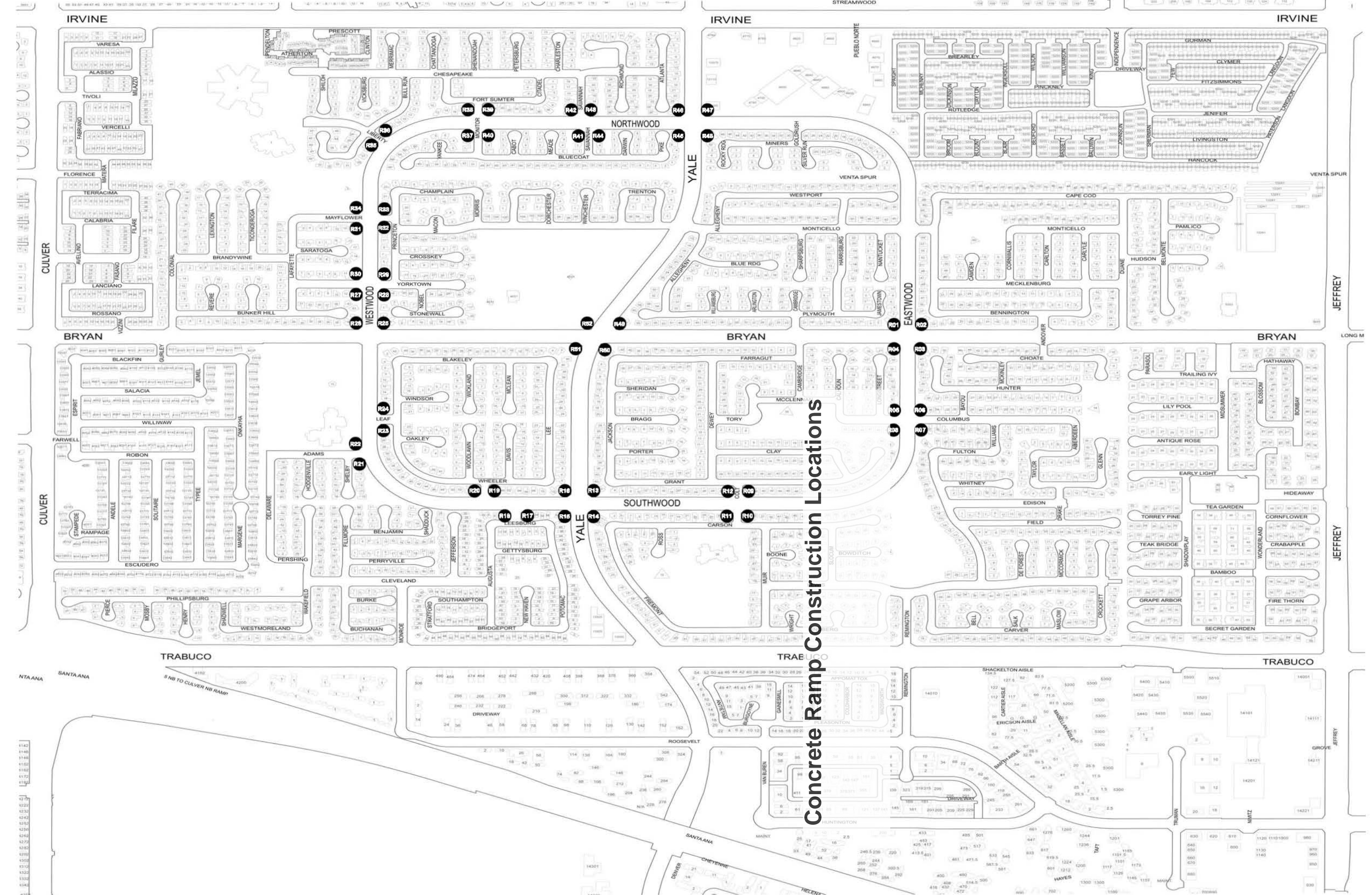
NORTHWOOD ZONE 1

- Variable Depth Edge Grind and 2" Fiber Reinforced AC Overlay
- 2" Consistent Depth Grind and Fiber Reinforced AC Overlay
- Repairs In Various locations / Crack Seal / Slurry Seal
- Crack Seal / Type 1 Slurry Seal
- Crack Seal / Type 2 Slurry Seal
- Private Streets - Not a Part



NORTHWOOD ZONE 2

- Variable Depth Edge Grind and 2" Fiber Reinforced AC Overlay
- Crack Seal / Type 1 Slurry Seal
- Private Streets - Not a Part



FY 2018-19 ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP 311901
Bid No. 19-1436

Quantities Estimate by Project Location

Quantities Estimate by Project Location																							IRWD Facilities			
					Variable Depth	2" Deep	Rehab	2" AC Repairs	Micro-Mill	Slurry Seal		Length	Average	Project Area	Cold Mill for AC Repairs	2" Paving for AC Repairs	Variable Depth Cold Milling	2" Deep Cold Milling	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves	Recycled Water	Sewer Cleanout	Sewer Manhole
STREET	LIMITS	PA	ZONE	Street Type	Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
ARBORWOOD	CITRUSGLEN to WINTHROP	5	2	Collector					x	x		434	48	20,832	-	-	-	-	-	4,340	2,315	-	0	0	0	0
ARBORWOOD	WINTHROP to BETHESDA	5	2	Collector					x	x		866	48	41,568	-	-	-	-	-	8,660	4,619	-	0	0	0	0
ARBORWOOD	BETHESDA to YALE CT	5	2	Collector					x	x		374	48	17,952	-	-	-	-	-	3,740	1,995	-	0	0	0	0
ARBORWOOD	YALE CT to HEDGE LN	5	2	Collector					x	x		1,691	48	81,168	-	-	-	-	-	16,910	9,019	-	0	0	0	0
ARBORWOOD	HEDGE LN to CANYONWOOD	5	2	Collector					x	x		254	48	12,192	-	-	-	-	-	2,540	1,355	-	0	0	0	0
ARBORWOOD	CANYONWOOD to ARDEN	5	2	Collector					x	x		516	48	24,768	-	-	-	-	-	5,160	2,752	-	0	0	0	0
CANYONWOOD	MEADOWOOD to ARBORWOOD	5	2	Collector					x	x		1,026	47	48,472	-	-	-	-	-	10,260	5,386	-	0	0	0	0
CITRUSGLEN	ARBORWOOD to MEADOWOOD	5	2	Collector					x	x		917	48	44,016	-	-	-	-	-	9,170	4,891	-	0	0	0	0
MEADOWOOD	CITRUSGLEN to YALE AVE	5	2	Collector					x	x		1,236	47	58,092	-	-	-	-	-	12,360	6,455	-	0	0	0	0
MEADOWOOD	YALE AVE to CREEKGLEN	5	2	Collector					x	x		774	47	36,378	-	-	-	-	-	7,740	4,042	-	0	0	0	0
MEADOWOOD	CREEKGLEN to CANYONWOOD	5	2	Collector					x	x		1,682	47	79,054	-	-	-	-	-	16,820	8,784	-	0	0	0	0
YALE AVE	PORTOLA PKWY to YALE CT	5	2	Collector					x	x		824	48	39,552	-	-	-	-	-	8,240	4,395	-	0	0	0	0
YALE AVE	MEADOWOOD to HICKS CANYON	5	2	Collector					x	x		1,680	37	75,160	-	-	-	-	-	16,800	8,351	-	0	0	0	0
YALE CT	ARBORWOOD to EOP	5	2	Collector					x	x		689	33	22,737	-	-	-	-	-	6,890	2,526	-	0	0	0	0
ABERDEEN	TAYLOR to COLUMBUS	8	1	Residential	x		x					490	33	19,170	-	-	9,800	-	240	-	-	-	4	0	0	0
ABETO	CASTILLO to BRENA	8	2	Residential	x		x					949	37	36,613	-	-	18,980	-	458	-	-	-	5	0	0	0
ADAMS	DELAWARE to WESTWOOD	8	1	Residential	x		x					601	37	22,237	-	-	12,020	-	278	-	-	-	10	1	0	2
ALAMEDA	PARK PL to END	8	2	Residential						x		777	33	27,441	-	-	-	-	-	-	3,049	-	0	0	0	0
ALASSIO	VARESA to MILAZZO	8	1	Residential	x		x					644	33	21,252	-	-	12,880	-	266	-	-	-	6	0	1	2
ALBA	HICKS CANYON to ALBA W	8	2	Residential						x		161	33	6,223	-	-	-	-	-	-	691	-	0	0	0	0
ALBA E	END to ALBA W	8	2	Residential						x		335	33	12,855	-	-	-	-	-	-	1,428	-	0	0	0	0
ALBA W	END to ALBA E	8	2	Residential						x		406	33	15,198	-	-	-	-	-	-	1,689	-	0	0	0	0
ALEGRIA	ALONDRA to HACIENDA	8	2	Residential	x		x					951	37	35,937	-	-	19,020	-	449	-	-	-	6	0	2	4
ALLEGHENY	MONTICELLO to PLYMOUTH	8	1	Residential						x		758	33	25,014	-	-	-	-	-	-	2,779	-	0	0	0	0
ALLEGHENY	WESTPORT to MONTICELLO	8	1	Residential						x		278	33	9,424	-	-	-	-	-	-	1,047	-	0	0	0	0
ALONDRA	ALEGRIA to END	8	2	Residential	x		x					607	33	24,081	-	-	12,140	-	301	-	-	-	3	0	2	2
AMISTAD	CASTILLO to SEVILLE	8	2	Residential	x		x					692	37	25,604	-	-	13,840	-	320	-	-	-	10	0	3	4
ANDELE WAY	ROBON DR to ESCUDERO DR	8	1	Residential						x		898	37	32,930	-	-	-	-	-	-	3,659	-	0	0	0	0
ANDOVER	BENNINGTON to BRYAN AVE	8	1	Residential	x		x					186	53	9,858	-	-	3,720	-	123	-	-	-	0	0	0	0
ANDOVER	BRYAN AVE to CHOATE	8	1	Residential	x		x					186	33	6,138	-	-	3,720	-	77	-	-	-	6	0	0	1
ANTIETAM	APPOMATTOX to PLEASONTON	8	1	Residential					x	x		344	33	12,852	-	-	-	-	-	3,440	1,428	-	0	0	0	0
APPOMATTOX	WADSWORTH to ANTIETAM	8	1	Residential					x	x		1,042	33	35,886	-	-	-	-	-	10,420	3,987	-	0	0	0	0
ARLINGTON	PLYMOUTH to END	8	1	Residential						x		154	31	6,274	-	-	-	-	-	-	697	-	0	0	0	0
ATLANTA	END to END	8	1	Residential	x		x					555	33	21,815	-	-	11,100	-	273	-	-	-	4	0	4	2
AUGUSTA	LEESBURG to BRIDGEPORT	8	1	Residential	x		x					859	33		-	-	17,180	-	-	-	-	-	13	0	0	4
AVELLINO	FILARE to LANCIANO	8	1	Residential						x		230	33	7,590	-	-	-	-	-	-	843	-	0	0	0	0
AVELLINO	CALABRIA to FILARE	8	1	Residential	x		x					304	33	10,032	-	-	6,080	-	125	-	-	-	4	0	1	1
BAYOU	HUNTER to COLUMBUS	8	1	Residential	x		x					256	33	8,448	-	-	5,120	-	106	-	-	-	4	0	0	2
BELL	CARVER to END	8	1	Residential		x	x					112	33	5,496	-	-	-	5,496	69	-	-	-	3	0	0	2
BELLEZZA	BRENA to END	8	2	Residential						x		412	33	15,396	-	-	-	-	-	-	1,711	-	0	0	0	0
BELMONTE	HUDSON to END	8	1	Residential	x		x					439	33	16,287	-	-	8,780	-	204	-	-	-	7	0	2	3
BELMONTE	CAPE COD to HUDSON	8	1	Residential	x		x					517	33	17,061	-	-	10,340	-	213	-	-	-	5	0	2	2
BENJAMIN	FILLMORE to SHADDUCK	8	1	Residential	x		x					497	33	17,401	-	-	9,940	-	218	-	-	-	8	0	0	3
BENNINGTON	CARLYLE to MECKLENBURG	8	1	Residential	x		x					1,168	33	40,794	-	-	23,360	-	510	-	-	-	9	0	2	4
BENNINGTON	MECKLENBURG to CAPE COD	8	1	Residential																						

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Quantities Estimate by Project Location																							IRWD Facilities				
					Variable Depth	2" Deep	Rehab	2" AC Repairs	Micro-Mill	Slurry Seal		Length	Average	Project Area	Cold Mill for AC Repairs	2" Paving for AC Repairs	Variable Depth Cold Milling	2" Deep Cold Milling	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves	Recycled Water	Sewer Cleanout	Sewer Manhole	
STREET	LIMITS	PA	ZONE	Street Type	Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate	
CAMBRIDGE	PLYMOUTH to END	8	1	Residential						x		155	31	6,605	-	-	-	-	-	-	734	-	0	0	0	0	
CAMBRIDGE	MCCLENNAN to BRYAN AVE	8	1	Residential						x		526	33	17,358	-	-	-	-	-	-	1,929	-	0	0	0	0	
CAMDEN	MECKLENBURG to END	8	1	Residential		x	x					210	33	8,730	-	-	-	8,730	109	-	-	-	2	0	1	2	
CAMPANERO	HICKS CANYON to CAMPANERO E	8	2	Residential						x		159	33	5,247	-	-	-	-	-	-	583	-	0	0	0	0	
CAMPANERO E	CAMPANERO to END	8	2	Residential						x		513	33	18,729	-	-	-	-	-	-	2,081	-	0	0	0	0	
CAMPANERO W	CAMPANERO to END	8	2	Residential						x		391	33	14,703	-	-	-	-	-	-	1,634	-	0	0	0	0	
CANDELA	CASTILLO to END	8	2	Residential						x		319	33	12,327	-	-	-	-	-	-	1,370	-	0	0	0	0	
CAPE COD	DUANE to END	8	1	Residential	x		x					644	33	23,052	-	-	12,880	-	288	-	-	-	3	0	0	2	
CAPE COD	BENNINGTON to DUANE	8	1	Residential	x		x					1,146	33	38,568	-	-	22,920	-	482	-	-	-	6	0	3	3	
CARLINA	BRISA to MADRINA	8	1	Residential	x		x					252	33	8,316	-	-	5,040	-	104	-	-	-	6	0	0	1	
CARLINA	MADRINA to EOP	8	2	Residential	x		x					229	33	9,357	-	-	4,580	-	117	-	-	-	1	0	0	2	
CARLTON	MONTICELLO to MECKLENBURG	8	1	Residential						x		450	33	14,850	-	-	-	-	-	-	1,650	-	0	0	0	0	
CARLYLE	MECKLENBURG to BENNINGTON	8	1	Residential	x		x					238	33	8,604	-	-	4,760	-	108	-	-	-	4	0	1	2	
CARLYLE	MONTICELLO to MECKLENBURG	8	1	Residential	x		x					450	33	14,850	-	-	9,000	-	186	-	-	-	2	0	1	1	
CARSON	FREMONT to MUIR	8	1	Residential	x		x					957	33	32,331	-	-	19,140	-	404	-	-	-	8	0	1	4	
CARSON	MUIR to END	8	1	Residential	x		x					680	37	26,960	-	-	13,600	-	337	-	-	-	6	0	1	2	
CARVER	LEWIS to CROCKETT	8	1	Residential						x		1,382	33	47,106	-	-	-	-	-	-	5,234	-	0	0	0	0	
CASTILLO	ABETO to CINTILAR	8	1	Residential	x		x					510	37	19,620	-	-	10,200	-	245	-	-	-	7	0	2	3	
CASTILLO	CINTILAR to AMISTAD	8	1	Residential	x		x					468	37	17,316	-	-	9,360	-	216	-	-	-	0	0	0	0	
CASTILLO	AMISTAD to EOP	8	1	Residential	x		x					151	37		-	-	3,020	-	-	-	-	-	1	0	0	0	
CHALLENGER	SOUTHWOOD to LEESBURG	8	1	Residential						x		166	34	6,144	-	-	-	-	-	-	683	-	0	0	0	0	
CHAMPLAIN	PRINCETON to MORRIS	8	1	Residential	x		x					507	33	18,231	-	-	10,140	-	228	-	-	-	3	0	1	3	
CHARLESTON	CHESAPEAKE to END	8	1	Residential	x		x					300	33	11,700	-	-	6,000	-	146	-	-	-	4	0	0	2	
CHATTANOOGA	CHESAPEAKE to END	8	1	Residential						x		300	33	11,700	-	-	-	-	-	-	1,300	-	0	0	0	0	
CHESAPEAKE	ATLANTA to SAVANNAH	8	1	Residential	x		x					502	50	18,500	-	-	10,040	-	231	-	-	-	7	0	0	0	
CHESAPEAKE	SAVANNAH to END	8	1	Residential	x		x					2,214	33	73,062	-	-	44,280	-	913	-	-	-	24	0	0	6	
CHOATE	SOUTH EAST END to ANDOVER	8	1	Residential	x		x					473	33	18,359	-	-	9,460	-	229	-	-	-	2	0	1	2	
CHOATE	ANDOVER to END	8	1	Residential	x		x					453	33	16,749	-	-	9,060	-	209	-	-	-	3	0	1	2	
CHRISTAMON	PARK PL to CHISTAMON E	8	2	Residential						x		175	33	5,775	-	-	-	-	-	-	642	-	0	0	0	0	
CHRISTAMON E	CHRISTAMON W to END	8	2	Residential						x		753	33	24,849	-	-	-	-	-	-	2,761	-	0	0	0	0	
CHRISTAMON W	CHISTAMON E to ORANGE ARROW	8	2	Residential						x		919	33		-	-	-	-	-	-	-	-	0	0	0	0	
CHRISTAMON W	ORANGE ARROW to END	8	2	Residential						x		511	33		-	-	-	-	-	-	-	-	0	0	0	0	
CINTILAR	CASTILLO to END	8	2	Residential						x		319	33	12,327	-	-	-	-	-	-	1,370	-	0	0	0	0	
CITADEL	CHESAPEAKE to FORT SUMTER	8	1	Residential	x		x					207	33	7,581	-	-	4,140	-	95	-	-	-	0	0	1	2	
CLAY	DEWEY to GRANT	8	1	Residential						x		991	37	38,167	-	-	-	-	-	-	4,241	-	0	0	0	0	
CLEVELAND	WAKEFIELD to AUGUSTA	8	1	Residential		x	x					1,132	34	45,488	-	-	-	45,488	569	-	-	-	6	2	0	3	
COLDHARBOR	PLESONTON to APPOMATTOX	8	1	Residential					x	x		359	33	11,847	-	-	-	-	-	-	3,590	1,316	-	0	0	0	0
COLONIAL	BRYAN AVE to END	8	1	Residential	x		x					1,155	33	39,915	-	-	23,100	-	499	-	-	-	5	0	1	5	
COLT	CARSON to SOUTHWOOD	8	1	Residential	x		x					178	37	6,586	-	-	3,560	-	82	-	-	-	2	1	0	0	
COLT	SOUTHWOOD to GRANT	8	1	Residential	x		x					175	37	6,475	-	-	3,500	-	81	-	-	-	3	0	0	0	
COLUMBUS	ABERDEEN to SOUTHWOOD	8	1	Residential						x		1,013	30	31,140	-	-	-	-	-	-	3,460	-	0	0	0	0	
COLUMBUS	SOUTHWOOD to CALHOUN	8	1	Residential					x	x		414	34	15,076	-	-	-	-	-	-	4,140	1,675	-	0	0	0	0
COPPER HILL	MINERS TRAIL to END	8	1	Residential						x		161	33	7,113	-	-	-	-	-	-	790	-	0	0	0	0	
CORNWALLIS	MONTICELLO to MECKLENBURG	8	1	Residential						x		450	33	14,850	-	-	-	-	-	-	1,650	-	0	0	0	0	
CROCKETT	CARVER to LEWIS	8	1	Residential	x		x					404	33	14,082													

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STREET	LIMITS	PA	ZONE	Street Type	Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
ENSUENO W	ENSUENO to END	8	2	Residential						x		725	33	23,925	-	-	-	-	-	-	2,658	-	0	0	0	0
ENTRADA	HICKS CANYON to ENTRADA W	8	2	Residential						x		192	33	6,336	-	-	-	-	-	-	704	-	0	0	0	0
ENTRADA E	ENTRADA to END	8	2	Residential						x		528	33	17,424	-	-	-	-	-	-	1,936	-	0	0	0	0
ENTRADA W	ENTRADA to END	8	2	Residential						x		604	33	19,932	-	-	-	-	-	-	2,215	-	0	0	0	0
ESCUADERO DR	CULVER DR to SOLITAIRE WAY	8	1	Residential						x		693	37	25,345	-	-	-	-	-	-	2,816	-	0	0	0	0
ESCUADERO DR	SOLITAIRE WAY to MARGENE CIR	8	1	Residential						x		518	37	19,916	-	-	-	-	-	-	2,213	-	0	0	0	0
ESPIRIT WAY	BLACKFIN AVE to ROBON DR	8	1	Residential						x		780	37	30,360	-	-	-	-	-	-	3,373	-	0	0	0	0
FABRIANO	ALASSIO to TIVOLI	8	1	Residential	x		x					198	33	6,534	-	-	3,960	-	82	-	-	-	0	0	1	0
FABRIANO	TIVOLI to VERCELI	8	1	Residential	x		x					907	33	29,931	-	-	18,140	-	374	-	-	-	9	0	0	6
FARRAGUT	DEWEY to JACKSON	8	1	Residential	x		x					598	37	22,876	-	-	11,960	-	286	-	-	-	2	0	2	2
FARRAGUT	CAMBRIDGE to DEWEY	8	1	Residential						x		537	33	17,721	-	-	-	-	-	-	1,969	-	0	0	0	0
FARWELL AVE	ESPIRIT WAY to CULVER DR	8	1	Residential						x		196	40	7,520	-	-	-	-	-	-	836	-	0	0	0	0
FASANO	FILARE to LANCIANO	8	1	Residential						x		229	33	7,557	-	-	-	-	-	-	840	-	0	0	0	0
FIELD	FULTON to END	8	1	Residential	x		x					960	33	33,480	-	-	19,200	-	419	-	-	-	8	0	3	3
FILARE	CULVER DR to FASANO	8	1	Residential	x		x					445	30	16,350	-	-	8,900	-	204	-	-	-	6	0	0	2
FILARE	FASANO to TERRACIMA	8	1	Residential						x		636	30	22,580	-	-	-	-	-	-	2,509	-	0	0	0	0
FILLMORE	CLEVELAND to END	8	1	Residential	x		x					583	33	21,039	-	-	11,660	-	263	-	-	-	4	0	0	2
FILLMORE	BUCHANAN to BURKE	8	1	Residential	x		x					397	33	13,851	-	-	7,940	-	173	-	-	-	0	0	0	0
FLORENCE	CULVER DR to MATERA	8	1	Residential	x		x					361	36	12,996	-	-	7,220	-	162	-	-	-	0	0	0	1
FORT SUMTER	CHESAPEAKE to CITADEL	8	1	Residential	x		x					781	33	28,023	-	-	15,620	-	350	-	-	-	6	0	2	2
FORTUNA	PARK PL to FORTUNA W	8	2	Residential						x		169	33	5,577	-	-	-	-	-	-	620	-	0	0	0	0
FORTUNA E	FORTUNA to END	8	2	Residential						x		761	33	25,113	-	-	-	-	-	-	2,790	-	0	0	0	0
FORTUNA W	END to FORTUNA	8	2	Residential						x		527	33	17,391	-	-	-	-	-	-	1,932	-	0	0	0	0
FREMONT	LINDBERG to CARSON	8	1	Residential	x		x					936	33	31,638	-	-	18,720	-	395	-	-	-	6	0	0	3
FULTON	EDISON to WILLIAMS	8	1	Residential	x		x					805	37	32,035	-	-	16,100	-	400	-	-	-	5	0	3	3
FULTON	LEWIS to EDISON	8	1	Residential	x		x					721	37	26,677	-	-	14,420	-	333	-	-	-	0	0	0	0
GAINESMILL	PLEASONTON to APPOMATTOX	8	1	Residential					x	x		357	33	11,781	-	-	-	-	-	3,570	1,309	-	0	0	0	0
GETTYSBURG	POTOMAC to AUGUSTA	8	1	Residential	x		x					383	33	12,639	-	-	7,660	-	158	-	-	-	7	0	0	3
GLENN	TAYLOR to END	8	1	Residential	x		x					718	33		-	-	14,360	-	-	-	-	-	6	0	4	4
GLORIETA	HICKS CANYON to GLORIETA E	8	2	Residential						x		169	33	5,577	-	-	-	-	-	-	620	-	0	0	0	0
GLORIETA E	GLORIETA to EOP	8	2	Residential						x		647	33	21,351	-	-	-	-	-	-	2,372	-	0	0	0	0
GLORIETA W	GLORIETA to EOP	8	2	Residential						x		534	33	17,622	-	-	-	-	-	-	1,958	-	0	0	0	0
GOLD RUSH	NORTHWOOD to MINERS TRAIL	8	1	Residential						x		170	37	6,290	-	-	-	-	-	-	699	-	0	0	0	0
GRANT	JACKSON to COLT	8	1	Residential						x		786	37	29,082	-	-	-	-	-	-	3,231	-	0	0	0	0
GRANT	COLT to END	8	1	Residential						x		970	37	37,690	-	-	-	-	-	-	4,188	-	0	0	0	0
GURLEY ST	BRYAN AVE to BLACKFIN AVE	8	1	Residential						x		196	36	6,768	-	-	-	-	-	-	752	-	0	0	0	0
HACIENDA	ALEGRIA to PARK PL	8	1	Residential	x		x					400	37	15,550	-	-	8,000	-	194	-	-	-	7	1	2	1
HAMPTON	WHEELER to SOUTHWOOD	8	1	Residential						x		181	37	6,697	-	-	-	-	-	-	744	-	0	0	0	0
HANCOCK	BUNKER HILL to END	8	1	Residential	x		x					192	33	8,136	-	-	3,840	-	102	-	-	-	1	0	0	1
HARRISBURG	MONTICELLO to WESTPORT	8	1	Residential						x		276	37	10,212	-	-	-	-	-	-	1,135	-	0	0	0	0
HARRISBURG	PLYMOUTH to MONTICELLO	8	1	Residential	x		x					699	37	25,863	-	-	13,980	-	323	-	-	-	8	0	2	4
HENRY	PHILLIPSBURG to END	8	1	Residential	x		x					271	33		-	-	5,420	-	-	-	-	-	2	0	1	0
HICKS CANYON	YALE AVE to BRIO	8	2	Residential					x		x	1,113	42	46,746	-	-	-	-	-	11,130	-	5,194	0	0	0	0
HICKS CANYON	BRIO to PARK PL	8	2	Residential					x		x	1,219	42	51,198	-	-	-	-	-	12,190	-	5,689	0	0	0	0
HICKS CANYON	YALE AVE to SOUTH END	8	2	Residential					x		x	1,471	42	61,782	-	-	-	-</								

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Quantities Estimate by Project Location

Quantities Estimate by Project Location																					IRWD Facilities					
					Variable Depth	2" Deep	Rehab	2" AC Repairs	Micro-Mill	Slurry Seal		Length	Average	Project Area	Cold Mill for AC Repairs	2" Paving for AC Repairs	Variable Depth Cold Milling	2" Deep Cold Milling	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves	Recycled Water	Sewer Cleanout	Sewer Manhole
STREET	LIMITS	PA	ZONE	Street Type	Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
LEXINGTON	BRANDYWINE to END	8	1	Residential	x		x					519	33	18,927	-	-	10,380	-	237	-	-	-	2	0	2	2
LIBERTY	NORTHWOOD to BULL RUN	8	1	Residential	x		x					171	37	6,327	-	-	3,420	-	79	-	-	-	5	1	0	0
LIBERTY	BULL RUN to END	8	1	Residential	x		x					372	33	12,276	-	-	7,440	-	153	-	-	-	2	0	0	1
LINDBERG	MUIR to FREMONT	8	1	Residential	x		x					577	33	19,041	-	-	11,540	-	238	-	-	-	2	0	1	3
LINDBERG	LEWIS to MUIR	8	1	Residential	x		x					1,026	33	35,358	-	-	20,520	-	442	-	-	-	13	0	0	4
LONGSTREET	COLUMBUS to END	8	1	Residential				x	x	x		493	33	18,069	3,614	45	-	-	-	4,930	2,008	-	0	0	1	1
LUCERO	ORANGE ARROW to LUCERO W	8	2	Residential						x		185	33	6,105	-	-	-	-	-	-	678	-	0	0	0	0
LUCERO E	LUCERO to END	8	2	Residential						x		554	33	18,282	-	-	-	-	-	-	2,031	-	0	0	0	0
LUCERO W	LUCERO to END	8	2	Residential						x		576	33	19,008	-	-	-	-	-	-	2,112	-	0	0	0	0
MACON	MONTICELLO to END	8	1	Residential	x		x					73	74	5,402	-	-	1,460	-	68	-	-	-	0	0	0	1
MADRINA	CARLINA to CDS	8	2	Residential	x		x					154	33	6,882	-	-	3,080	-	86	-	-	-	0	0	0	1
MARGENE CIR	ESCUDERO DR to END	8	1	Residential						x		471	37	19,927	-	-	-	-	-	-	2,214	-	0	0	0	0
MASLOW	CARVER to END	8	1	Residential						x		142	33	6,486	-	-	-	-	-	-	721	-	0	0	0	0
MATERA	FABRIANO to TERRACIMA	8	1	Residential	x		x					299	33	9,867	-	-	5,980	-	123	-	-	-	0	0	0	1
MAYFLOWER	WESTWOOD to PRINCETON	8	1	Residential	x		x					155	37	5,735	-	-	3,100	-	72	-	-	-	0	0	0	0
MAYFLOWER	LAFAYETTE to WESTWOOD	8	1	Residential						x		479	34	17,286	-	-	-	-	-	-	1,921	-	0	0	0	0
MCLENNAN	CALHOUN to TORY	8	1	Residential						x		532	37	19,684	-	-	-	-	-	-	2,187	-	0	0	0	0
MCCORMICK	LEWIS to END	8	1	Residential	x		x					297	33	11,601	-	-	5,940	-	145	-	-	-	1	0	1	1
MCKINLEY	CHOATE to HUNTER	8	1	Residential	x		x					244	33	8,052	-	-	4,880	-	101	-	-	-	0	0	0	0
MCLEAN	BLAKELEY to END	8	1	Residential				x	x	x		398	33	14,934	2,987	37	-	-	-	3,980	1,659	-	1	0	0	1
MEADE	BLUECOAT to END	8	1	Residential	x		x					179	33	7,707	-	-	3,580	-	96	-	-	-	0	0	1	1
MECKLENBURG	CARLYLE to BENNINGTON	8	1	Residential						x		930	30	31,900	-	-	-	-	-	-	3,544	-	0	0	0	0
MECKLENBURG	DUANE to CARLYLE	8	1	Residential						x		228	30	7,590	-	-	-	-	-	-	843	-	0	0	0	0
MERRIMAC	CHESAPEAKE to END	8	1	Residential						x		300	33	11,700	-	-	-	-	-	-	1,300	-	0	0	0	0
MILAZZO	VARESA to VERCELLI	8	1	Residential	x		x					679	33	22,407	-	-	13,580	-	280	-	-	-	8	0	0	2
MINERS TRAIL	END to ROCKY RIDGE	8	1	Residential						x		984	33	34,272	-	-	-	-	-	-	3,808	-	0	0	0	0
MONITOR	BLUECOAT to NORTHWOOD	8	1	Residential	x		x					271	37	10,027	-	-	5,420	-	125	-	-	-	1	3	0	1
MONITOR	NORTHWOOD to FORT SUMTER	8	1	Residential	x		x					186	37	6,882	-	-	3,720	-	86	-	-	-	5	0	0	1
MONROE	TRABUCO to CLEVELAND	8	1	Residential	x		x					607	37	22,459	-	-	12,140	-	281	-	-	-	6	3	0	2
MONROE	ROOSEVELT to TRABUCO	8	1	Residential						x		620	37	23,940	-	-	-	-	-	-	2,660	-	0	0	0	0
MONTICELLO	BENNINGTON to EASTWOOD	8	1	Residential						x		163	30	4,890	-	-	-	-	-	-	543	-	0	0	0	0
MONTICELLO	DUANE to CORNWALLIS	8	1	Residential						x		695	30	23,850	-	-	-	-	-	-	2,650	-	0	0	0	0
MONTICELLO	PRINCETON to DORCHESTER E	8	1	Residential	x		x					952	37	37,224	-	-	19,040	-	465	-	-	-	10	0	1	3
MONTICELLO	DORCHESTER E to YALE AVE	8	1	Residential					x	x		805	37	29,785	-	-	-	-	-	8,050	3,309	-	0	0	0	0
MONTICELLO	SHARPSBURG to YALE AVE	8	1	Residential		x	x					748	30	23,940	-	-	-	23,940	299	-	-	-	7	0	3	6
MONTICELLO	EASTWOOD to SHARPSBURG	8	1	Residential		x	x					651	30	20,780	-	-	-	20,780	260	-	-	-	6	1	2	2
MORRIS RD	MONTICELLO to CHAMPLAIN	8	1	Residential	x		x					281	37	11,147	-	-	5,620	-	139	-	-	-	0	0	0	0
MOSBY	PHILLIPSBURG to END	8	1	Residential	x		x					225	33	9,225	-	-	4,500	-	115	-	-	-	1	0	0	0
MUIR	LINDBERG to CARSON	8	1	Residential	x		x					854	37	31,598	-	-	17,080	-	395	-	-	-	0	0	2	2
NANTUCKET	MONTICELLO to END	8	1	Residential						x		387	33	14,571	-	-	-	-	-	-	1,619	-	0	0	0	0
NEW HAVEN	BRIDGEPORT to END	8	1	Residential	x		x					307	33	11,931	-	-	6,140	-	149	-	-	-	2	0	0	1
NINOS	OWARI to END	8	2	Residential						x		235	33	9,555	-	-	-	-	-	-	1,062	-	0	0	0	0
NINOS	SOUTH END to OWARI	8	2	Residential						x		215	33	8,895	-	-	-	-	-	-	988	-	0	0	0	0
NOBEL	STONEWALL to YORKTOWN	8	1	Residential						x		242	33	7,986	-	-	-	-	-	-	887	-	0	0	0	0
OAKLEY	WHEELER to END	8	1	Residential						x		275														

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Quantities Estimate by Project Location

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					Variable Depth	2" Deep	Rehab	2" AC Repairs	Micro-Mill	Slurry Seal		Length	Average	Project Area	Cold Mill for AC Repairs	2" Paving for AC Repairs	Variable Depth Cold Milling	2" Deep Cold Milling	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves	Recycled Water	Sewer Cleanout	Sewer Manhole	
STREET	LIMITS	PA	ZONE	Street Type	Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate	
PRINCETON	YORKTOWN to CHAMPLAIN	8	1	Residential	x		x					768	33	26,094	-	-	15,360	-	326	-	-	-	6	0	2	2	
PROSA	ORANGE ARROW to END	8	2	Residential						x		626	33	20,658	-	-	-	-	-	-	2,295	-	0	0	0	0	
RAMPAGE LN	STAMPEDE CIR to ANDELE WAY	8	1	Residential						x		225	37	8,825	-	-	-	-	-	-	981	-	0	0	0	0	
REMINGTON	TRABUCO RD to LEWIS	8	1	Residential	x		x					519	37	19,203	-	-	10,380	-	240	-	-	-	4	3	0	0	
REMINGTON	ROOSEVELT to REMINGTON	8	1	Residential						x		703	37	26,011	-	-	-	-	-	-	2,890	-	0	0	0	0	
REMINGTON	END to ROOSEVELT	8	1	Residential						x		286	33	11,238	-	-	-	-	-	-	1,249	-	0	0	0	0	
RETOZO	ABETO to ALEGRIA	8	2	Residential	x		x					319	37	11,803	-	-	6,380	-	148	-	-	-	2	0	0	0	
REVERE	BUNKER HILL to END	8	1	Residential	x		x					193	33	8,169	-	-	3,860	-	102	-	-	-	1	0	0	1	
RICHMOND	CHESAPEAKE to SOUTH END	8	1	Residential	x		x					290	33	11,370	-	-	5,800	-	142	-	-	-	1	0	2	1	
RICHMOND	NORTH END to CHESAPEAKE	8	1	Residential	x		x					407	33	16,431	-	-	8,140	-	205	-	-	-	1	0	0	2	
ROANOKE	BENJAMIN to END	8	1	Residential	x		x					181	33	7,773	-	-	3,620	-	97	-	-	-	1	0	1	0	
ROBON DR	ESPIRIT WAY to TYPÉE WAY	8	1	Residential						x		755	37	28,685	-	-	-	-	-	-	3,187	-	0	0	0	0	
ROCKY RIDGE	MINERS TRAIL to END	8	1	Residential					x	x		161	33	7,113	-	-	-	-	-	-	1,610	790	0	0	0	0	
ROOSEVELT	TRUMAN to JEFFREY RD	8	1	Residential				x	x		x	978	60	67,580	13,516	166	-	-	-	-	9,780	-	7,509	2	1	0	1
ROOSEVELT	MONROE to YALE AVE	8	1	Residential					x	x		1,850	40	77,500	-	-	-	-	-	-	18,500	8,611	0	0	0	0	
ROOSEVELT	REMINGTON to HUNTINGTON	8	1	Residential					x	x		1,056	40	46,840	-	-	-	-	-	-	10,560	5,204	0	0	0	0	
ROOSEVELT	YALE AVE to REMINGTON	8	1	Residential					x	x		1,258	40	53,820	-	-	-	-	-	-	12,580	5,980	0	0	0	0	
ROOSEVELT	HUNTINGTON to TRUMAN	8	1	Residential					x	x		837	40	43,980	-	-	-	-	-	-	8,370	4,887	0	0	0	0	
ROSS	CARSON to END	8	1	Residential	x		x					242	33	9,786	-	-	4,840	-	122	-	-	-	0	0	0	1	
ROSSANO	LANCIANO to LANCIANO	8	1	Residential						x		736	33	24,288	-	-	-	-	-	-	2,699	-	0	0	0	0	
SALACIA DR	ESPIRIT WAY to JEMEL WAY	8	1	Residential						x		751	37	28,287	-	-	-	-	-	-	3,143	-	0	0	0	0	
SALK	CARVER to END	8	1	Residential		x	x					127	33	5,991	-	-	-	5,991	75	-	-	-	3	0	0	2	
SARATOGA	LAFAYETTE to END	8	1	Residential	x		x					296	33	11,568	-	-	5,920	-	145	-	-	-	4	0	1	1	
SAVANNAH	NORTHWOOD to BLUECOAT	8	1	Residential	x		x					285	33	9,405	-	-	5,700	-	118	-	-	-	0	0	1	1	
SAVANNAH	NORTHWOOD to CHESAPEAKE	8	1	Residential	x		x					405	33	13,365	-	-	8,100	-	167	-	-	-	3	0	2	1	
SEVILLE	BRENA to AMISTAD	8	2	Residential	x		x					459	37	16,983	-	-	9,180	-	212	-	-	-	4	0	1	2	
SHADDUCK	BENJAMIN to END	8	1	Residential	x		x					170	33		-	-	3,400	-	-	-	-	-	1	0	1	0	
SHADWELL	PHILLIPSBURG to WESTMORELAND	8	1	Residential	x		x					244	33		-	-	4,880	-	-	-	-	-	2	0	1	2	
SHARPSBURG	MONTICELLO to END	8	1	Residential	x		x					397	33	14,901	-	-	7,940	-	186	-	-	-	4	0	1	2	
SHELBY	ADAMS to END	8	1	Residential						x		320	33	12,360	-	-	-	-	-	-	1,373	-	0	0	0	0	
SHENANDOAH	CHESAPEAKE to END	8	1	Residential	x		x					300	33	11,700	-	-	6,000	-	146	-	-	-	1	0	0	1	
SHERIDAN	JACKSON to END	8	1	Residential	x		x					376	33	14,208	-	-	7,520	-	178	-	-	-	4	0	2	1	
SHILOH	CHESAPEAKE to END	8	1	Residential	x		x					304	33	11,832	-	-	6,080	-	148	-	-	-	1	0	2	0	
SILVER RUN	MINERS TRAIL to END	8	1	Residential						x		182	33	7,806	-	-	-	-	-	-	867	-	0	0	0	0	
SLOCUM	LEWIS to CARSON	8	1	Residential	x		x					489	33	16,137	-	-	9,780	-	202	-	-	-	3	0	1	0	
SOLITAIRE WAY	ROBON DR to ESCUDERO DR	8	1	Residential						x		899	37	32,967	-	-	-	-	-	-	3,663	-	0	0	0	0	
SOUTH HAMPTON	AUGUSTA to STRATFORD	8	1	Residential	x		x					371	33	12,993	-	-	7,420	-	162	-	-	-	3	0	0	1	
STAMPEDE CIR	END to RAMPAGE LN	8	1	Residential						x		140	37	7,680	-	-	-	-	-	-	853	-	0	0	0	0	
STONEWALL	END to END	8	1	Residential						x		397	33	16,101	-	-	-	-	-	-	1,789	-	0	0	0	0	
STRATFORD	SOUTH HAMPTON to BRIDGEPORT	8	1	Residential	x		x					230	33	9,090	-	-	4,600	-	114	-	-	-	1	0	0	0	
TAYLOR	GLENN to ABERDEEN	8	1	Residential	x		x					231	33		-	-	4,620	-	-	-	-	-	1	0	1	1	
TERRACIMA	CALABRIA to FILARE	8	1	Residential	x		x					653	33	21,549	-	-	13,060	-	269	-	-	-	5	0	0	2	
TICONDERGO	BRANDYWINE to END	8	1	Residential	x		x					518	33	18,894	-	-	10,360	-	236	-	-	-	2	0	0	2	
TIVOLI	CULVER DR to MILAZZO	8	1	Residential						x		542	30	17,760	-	-	-	-	-	-	1,973	-	0	0	0	0	
TORY	DEWEY to END	8	1	Residential																							

Quantities Estimate by Project Location

																							IRWD Facilities			
STREET	LIMITS	PA	ZONE	Street Type	Variable Depth	2" Deep	Rehab	2" AC Repairs	Micro-Mill	Slurry Seal		Length (FT)	Average Width (FT)	Project Area (SF)	Cold Mill for AC Repairs	2" Paving for AC Repairs	Variable Depth Cold Milling	2" Deep Cold Milling	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves	Recycled Water	Sewer Cleanout	Sewer Manhole
					Cold Mill	Cold Mill	2" AC	Needed		Type I	Type II				Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
WINCHESTER	MONTICELLO to END	8	1	Residential				x	x	x		261	33	10,413	2,083	26	-	-	-	2,610	1,157	-	3	0	0	1
WINDSOR	WHEELER to END	8	1	Residential				x	x	x		294	33	11,502	2,300	28	-	-	-	2,940	1,278	-	1	0	0	1
WOODLAWN	WHEELER to END	8	1	Residential						x		423	33	15,759	-	-	-	-	-	-	1,751	-	0	0	0	0
WRIGHT	LINDBERG to END	8	1	Residential	x		x					115	33	5,595	-	-	2,300	-	70	-	-	-	2	0	0	1
YANKEE	BLUECOAT to END	8	1	Residential	x		x					82	33	4,506	-	-	1,640	-	56	-	-	-	0	0	0	1
YORKTOWN	WESTWOOD to END	8	1	Residential						x		542	30	19,760	-	-	-	-	-	-	2,196	-	0	0	0	0
YORKTOWN	LAFAYETTE to WESTWOOD	8	1	Residential						x		478	34	17,252	-	-	-	-	-	-	1,917	-	0	0	0	0
EASTWOOD	COLUMBUS to BRYAN AVE	8	1	Collector					x		x	686	78	40,268	-	-	-	-	-	6,860	-	4,474	0	0	0	0
EASTWOOD	BRYAN AVE to MONTICELLO	8	1	Collector					x		x	874	78	46,372	-	-	-	-	-	8,740	-	5,152	0	0	0	0
NORTHWOOD	MONITOR to LIBERTY	8	1	Collector					x		x	601	66	31,826	-	-	-	-	-	6,010	-	3,536	0	0	0	0
NORTHWOOD	SAVANNAH to MONITOR	8	1	Collector					x		x	633	78	36,694	-	-	-	-	-	6,330	-	4,077	0	0	0	0
NORTHWOOD	YALE AVE to SAVANNAH	8	1	Collector					x		x	688	78	41,264	-	-	-	-	-	6,880	-	4,585	0	0	0	0
NORTHWOOD	MONTICELLO to YALE AVE	8	1	Collector					x		x	1,974	78	110,492	-	-	-	-	-	19,740	-	12,277	0	0	0	0
SOUTHWOOD	YALE AVE to COLT	8	1	Collector					x		x	970	78	53,860	-	-	-	-	-	9,700	-	5,984	0	0	0	0
SOUTHWOOD	ADAMS to YALE AVE	8	1	Collector					x		x	1,494	78	72,616	-	-	-	-	-	14,940	-	8,068	0	0	0	0
SOUTHWOOD	COLT to COLUMBUS	8	1	Collector					x		x	1,511	78	81,638	-	-	-	-	-	15,110	-	9,071	0	0	0	0
WESTWOOD	LIBERTY to YORKTOWN	8	1	Collector					x		x	1,170	66	64,664	-	-	-	-	-	11,700	-	7,185	0	0	0	0
WESTWOOD	YORKTOWN to BRYAN AVE	8	1	Collector				x	x		x	419	66	25,566	5,113	63	-	-	-	4,190	-	2,841	0	0	0	2
WESTWOOD	BRYAN AVE to ADAMS	8	1	Collector					x		x	1,133	66	67,598	-	-	-	-	-	11,330	-	7,511	0	0	0	0
BRYAN AVE	CULVER DR to COLONIAL			Arterial				x	x		x	783	60	54,480	10,896	134	-	-	-	7,830	-	6,053	5	0	0	0
BRYAN AVE	YALE AVE to CAMBRIDGE			Arterial				x	x		x	1,249	60	78,190	15,638	193	-	-	-	12,490	-	8,688	1	8	0	1
BRYAN AVE	EASTWOOD to ANDOVER			Arterial				x	x		x	835	60	52,850	10,570	130	-	-	-	8,350	-	5,872	0	0	0	0
BRYAN AVE	WESTWOOD to YALE AVE			Arterial				x	x		x	1,392	60	89,020	17,804	219	-	-	-	13,920	-	9,891	5	0	0	0
BRYAN AVE	CAMBRIDGE to EASTWOOD			Arterial				x	x		x	661	60	41,410	8,282	102	-	-	-	6,610	-	4,601	4	5	0	0
BRYAN AVE	COLONIAL to WESTWOOD			Arterial				x	x		x	1,214	60	76,340	15,268	188	-	-	-	12,140	-	8,482	7	4	0	0
BRYAN AVE	ANDOVER to DUANE			Arterial				x	x		x	486	60	31,910	6,382	79	-	-	-	4,860	-	3,546	2	3	0	0
BRYAN AVE	DUANE to JEFFREY RD			Arterial				x	x		x	1,320	60	86,200	17,240	212	-	-	-	13,200	-	9,578	3	3	0	1
TRABUCO RD	MONROE to YALE AVE			Arterial					x		x	1,609	30	50,770	-	-	-	-	-	16,090	-	5,641	0	0	0	0
TRABUCO RD	YALE AVE to MONROE			Arterial					x		x	1,543	30	47,290	-	-	-	-	-	15,430	-	5,254	0	0	0	0
TRABUCO RD	REMINGTON to YALE AVE			Arterial					x		x	1,555	30	47,650	-	-	-	-	-	15,550	-	5,294	0	0	0	0
TRABUCO RD	YALE AVE to REMINGTON			Arterial					x		x	1,489	30	45,670	-	-	-	-	-	14,890	-	5,074	0	0	0	0
TRABUCO RD	REMINGTON to JEFFREY RD			Arterial				x	x		x	2,642	30	87,760	17,552	216	-	-	-	26,420	-	9,751	20	0	0	0
TRABUCO RD	JEFFREY RD to REMINGTON			Arterial					x		x	2,642	30	83,260	-	-	-	-	-	26,420	-	9,251	0	0	0	0
Estimates & Contingencies					X	X	X	X	X	X	X				-	(20,341)	(267)	4,280	75	94	90	2,372	1,468	-	-	-
															-	-	-	-	-	-	-	-	-	-	-	-
													308,817	14,173,722	147,500	1,800	1,465,200	110,500	33,100	698,100	423,000	221,000	673	43	121	295

APPENDIX C

- NORTHWOOD, SOUTHWOOD, WESTWOOD, EASTWOOD
STRIPING PLANS AND DETAILS

General Notes:

1. Signs shown will be purchased and installed by the City of Irvine.
2. Existing pavement markings (for example, Signal Ahead, Slow, Ped XING, School, etc.) shall be re-painted and re-centered in the lane by the Contractor, unless otherwise noted.
3. Paint "BIKE LANE w/ directional arrow" per Caltrans Std. Plan A24A and A24D at the beginning of all bike lanes, unless otherwise noted.
4. Install Detail 26 along landscaped raised medians.
5. See traffic signal plans for detector loops.



General Notes:

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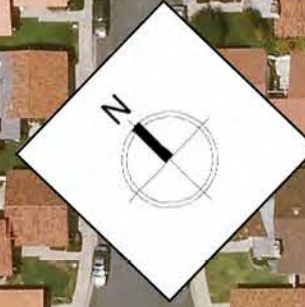
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5. See traffic signal plans for detector loops.



Northwood

Savannah

Yale Avenue

12" White X-Walk per
Std. Plan 203 (Typ.)

6" Solid (White)
Diagonal Stripe @
50' O.C. (Typ.)

6" Solid (White)
Diagonal Stripe @
50' O.C. (Typ.)

Type IV
Arrow (L)

Type IV
Arrow (L)

6" Solid (White)
Diagonal Stripe @
50' O.C. (Typ.)

Paint 4' x (6' - 8')
Pavement
Markings at 8'
O.C.

8" White
Chevron
Stripe @
25' O.C. (Typ.)

Type IV
Arrow (R)



Northwood

Yale Avenue

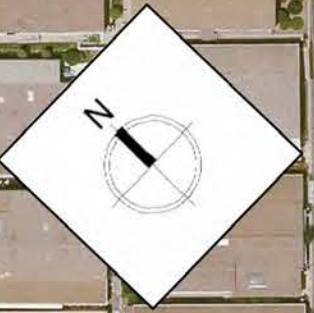
Gold Rush

General Notes:

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2. Existing pavement markings (for example, Signal Ahead, Slow, Ped XING, School, etc.) shall be re-painted and re-centered in the lane by the Contractor, unless otherwise noted.
3. Paint "BIKE LANE w/ directional arrow" per Caltrans Std. Plan A24A and A24D at the beginning of all bike lanes, unless otherwise noted.
4. Install Detail 26 along landscaped raised medians.
5. See traffic signal plans for detector loops.

General Notes:

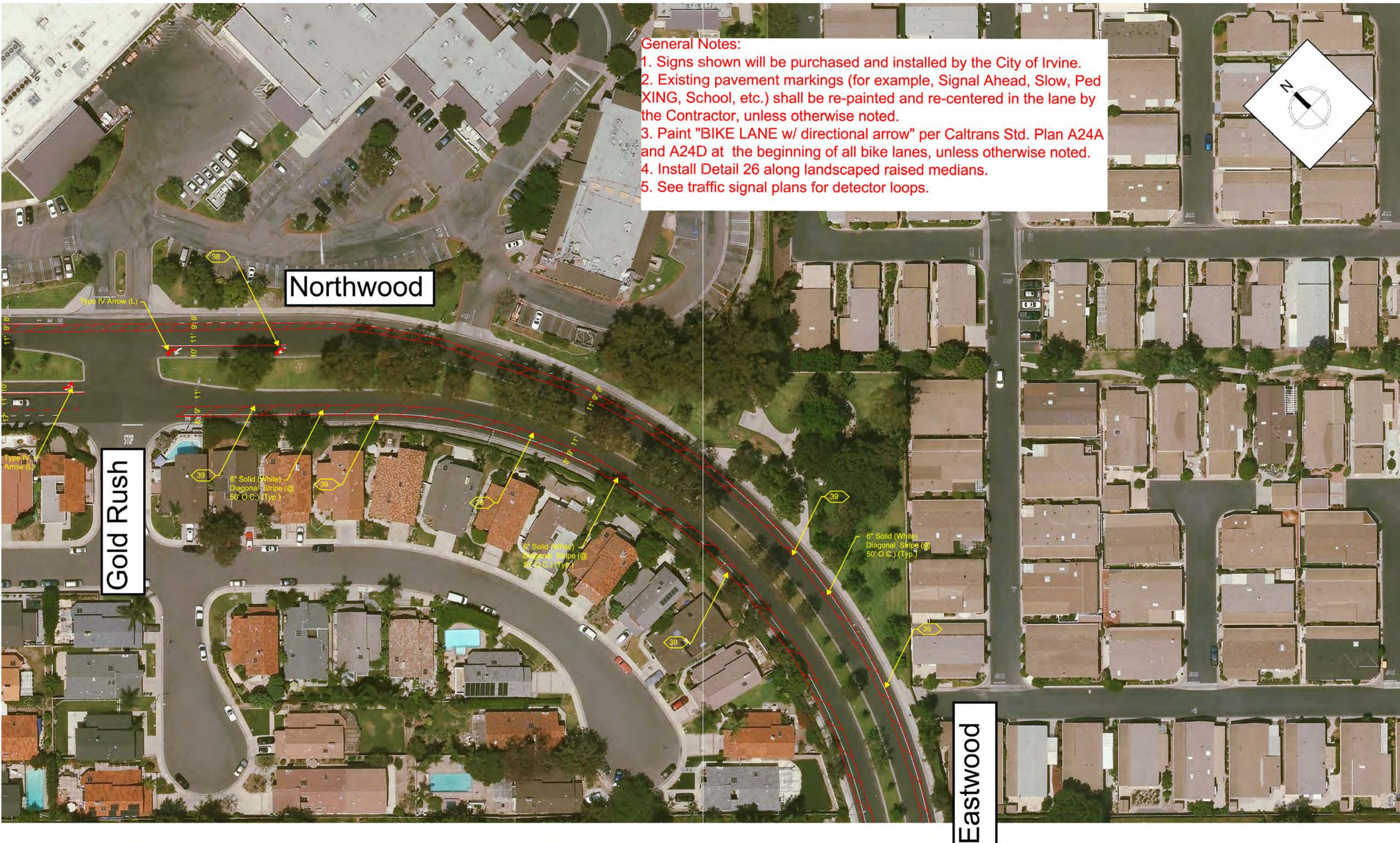
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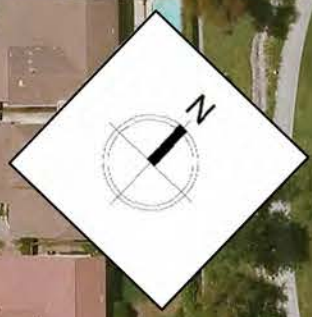
Northwood

Gold Rush

Eastwood



North



- General Notes:
- 1. Signs shown will be purchased and installed by the City of Irvine.
 - 2. Existing pavement markings (for example, Signal Ahead, Slow, Ped XING, School, etc.) shall be re-painted and re-centered in the lane by the Contractor, unless otherwise noted.
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 - 4. Install Detail 26 along landscaped raised medians.
 - 5. See traffic signal plans for detector loops.

Monticello

Eastwood



General Notes:

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4. Install Detail 26 along landscaped raised medians.
5. See traffic signal plans for detector loops.

Northwood

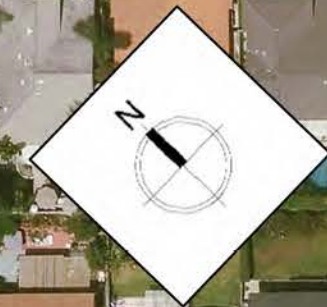
Dewey

Grant

Colt

Southwood

Carson



6" Solid (White)
Diagonal Stripe (@
60' O.C.) (Typ.)

11' 9" 8"

8' 9" 11"

6" Solid (White)
Diagonal Stripe (@
60' O.C.) (Typ.)

39A

Yield Markings
per Caltrans
Std. Plan
A24E (20' min
from X-Walk)

11' 9" 8"

11' 11" 10"

12" Yellow Ladder
X-Walk per
Caltrans Std. Plan
A24F

Yield Markings
per Caltrans
Std. Plan
A24E (20' min
from X-Walk)

Type IV
Arrow (L)

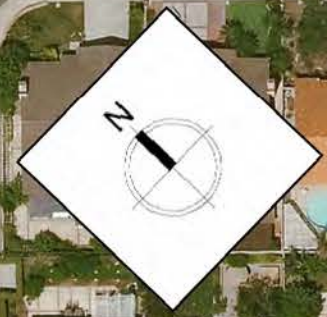
City shall construct
median nose to not
extend into the
X-walk markings.

6" Solid (White)
Diagonal Stripe (@
50' O.C.) (Typ.)

General Notes:

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5. See traffic signal plans for detector loops.

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 - 5. See traffic signal plans for detector loops.



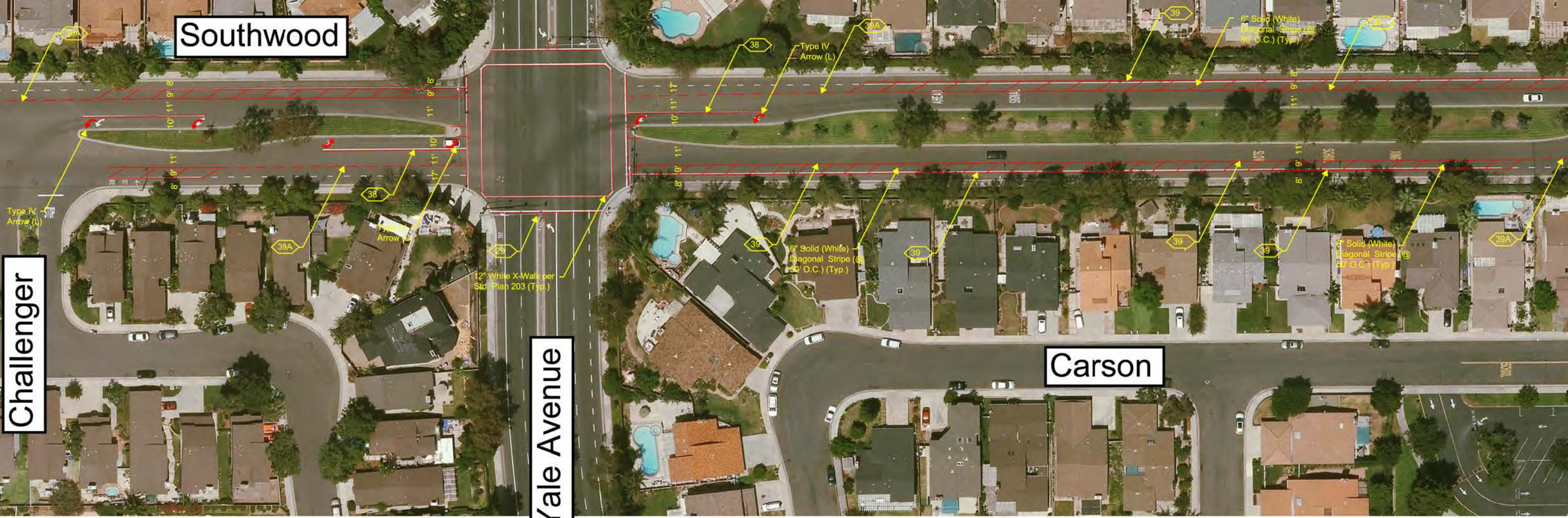
Southwood

Grant

Challenger

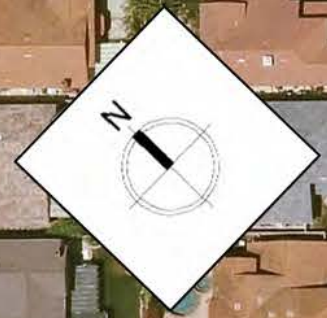
Yale Avenue

Carson





North



Adams

Westwood

Hampton

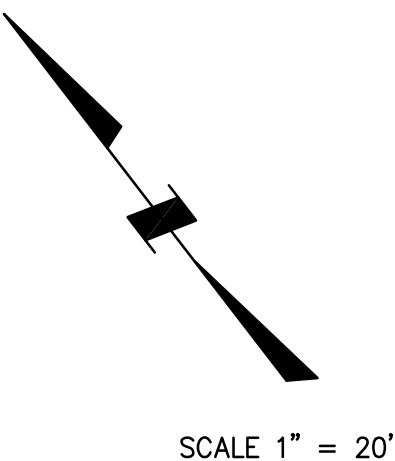
Southwood

Challenger

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 - 3. Paint "BIKE LANE w/ directional arrow" per Caltrans Std. Plan A24A and A24D at the beginning of all bike lanes, unless otherwise noted.
 - 4. Install Detail 26 along landscaped raised medians.
 - 5. See traffic signal plans for detector loops.

ALL CONDUIT AND CONDUCTORS ARE EXISTING

NOTE: See striping plans for details on striping. This is only for loop detection.



SENSOR SCHEDULE				
SENSOR	UNIT	CHANNEL	ULTIMATE	EXISTING
1		1	5-02	
		2	6-02	
2		3	1-05	
		4	2-05	
3		1	4-04	
		2	5-04	
4		3	1-07	
		4	2-07	
5		1	5-06	
		2	6-06	
6		3	1-01	
		4	2-01	
7		1	4-08	
		2	5-08	
8		3	1-03	
		4	2-03	
9		1 ●▲	1-02	
		2 ●▲	2-02	
10		3 ●●	3-02	
		4 ●▲	4-02	
11		1 ●▲	1-04	
		2 ●▲	2-04	
12		3 ●▲	3-04	
		4 ●▲	1-06	
13		1 ●▲	2-06	
		2 ●▲	3-06	
14		3 ●▲	4-06	
		4 ●▲	1-08	
15		1 ●▲	2-08	
		2 ●▲	3-08	
16		3 ■	7-02	
		4 ■	7-06	






- CALL HOLD
- CALL DELAY
- ▲ SYSEYEM SAMPLING

ALL EQUIPMENT ARE EXISTING
● BIKE PUSH BUTTON

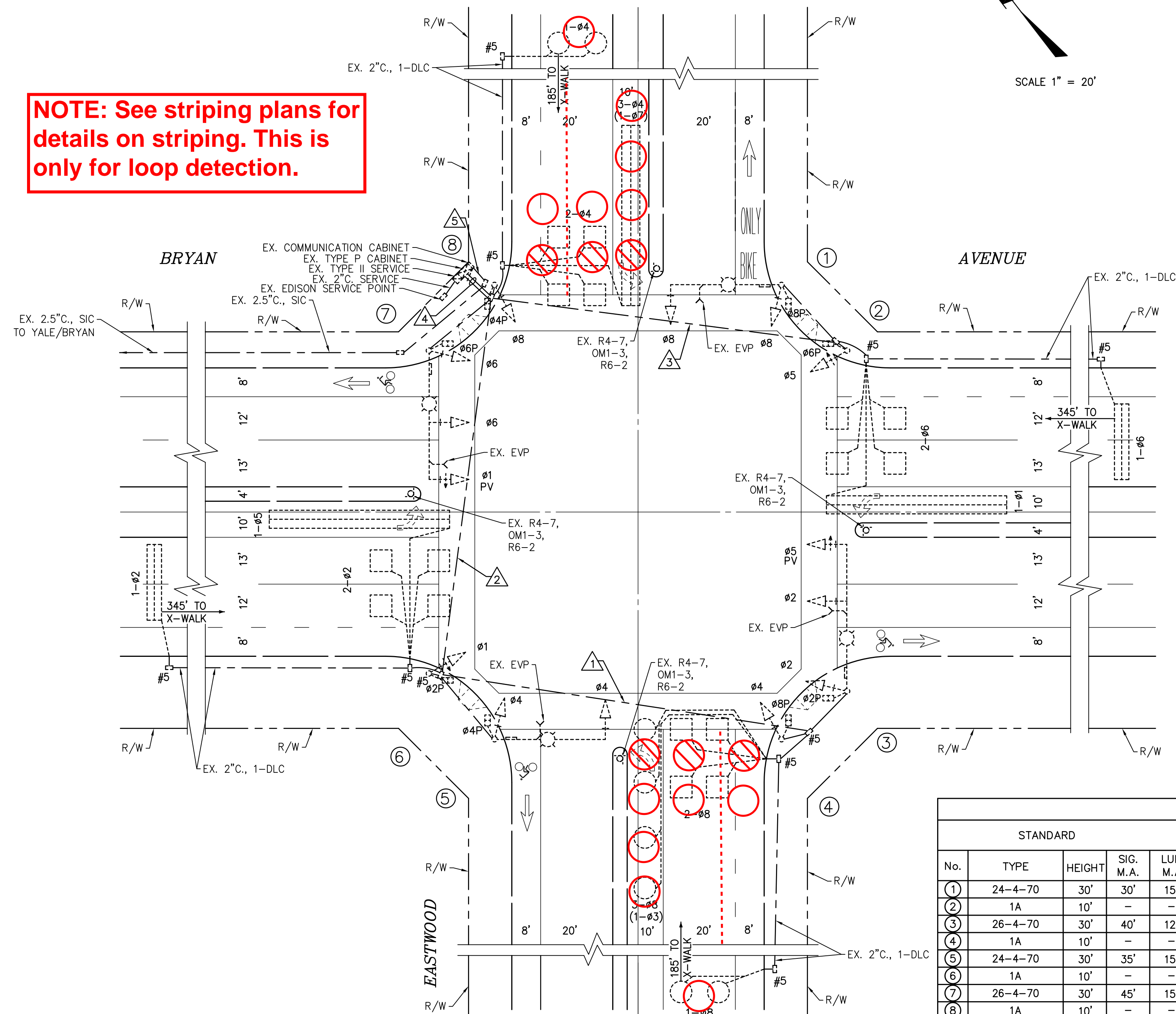
CITY OF IRVINE
PUBLIC WORKS DEPARTMENT









PLAN CHECK NO.	
PERMIT NO.	
SHEET	
1	
OF	1

✓	2/88	AUSTIN FOUST AND ASSOCIATES			
✓	4/11	ADVANTEC CONSULTING ENGINEERS			
NO.	DATE	REVISIONS	ENGR.	APPROV.	DATE

CONDUCTOR SCHEDULE						
AWG	CIRCUIT	RUN No.				
						
#14	ø1	—	3	—	3	—
	ø2	3	3	—	3	—
	ø3	—	—	3	3	—
	ø4	—	3	—	3	—
	ø5	3	3	3	6	—
	ø6	—	—	—	3	—
	ø7	3	3	—	3	—
	ø8	—	—	3	3	—
	ø2P	2	2	—	2	—
	ø4P	—	2	—	2	—
	ø6P	—	—	2	2	—
	ø8P	2	2	2	4	—
	ø2PPB	1	1	—	1	—
	ø4PPB	—	1	—	1	—
	ø6PPB	—	—	1	1	—
	ø8PPB	1	1	1	2	—
	ø2BPB	—	1	—	1	—
	ø4BPB	—	—	—	1	—
	ø6BPB	—	—	1	1	—
	ø8BPB	1	1	—	1	—
PPB&BPB COMMON	1	1	1	2	—	
SPARES	3	3	3	6	—	
TOTAL	20	30	20	57	—	
#14	IISNS	1	1	1	2	—
#10	LUMINAIRE	2	2	2	4	—
	SIG COMMON	1	1	1	2	—
	TOTAL	3	3	3	6	—
LOOP DETEC CABLE	ø1	—	—	1	1	—
	ø2	—	2	—	2	—
	ø4	—	—	—	3	—
	ø5	—	1	—	1	—
	ø6	—	—	2	2	—
	ø8	3	3	—	3	—
	TOTAL	3	6	3	12	—
	EVF	1	2	1	4	—
	SIC	—	—	—	—	1
	CONDUIT SIZE	3"	3"	3"	2-3"	4"

NOTES ON THIS SHEET




EXISTING PHASE DIAGRAM			
			
ϕ_1	ϕ_2	ϕ_3	ϕ_4
			
ϕ_5	ϕ_6	ϕ_7	ϕ_8

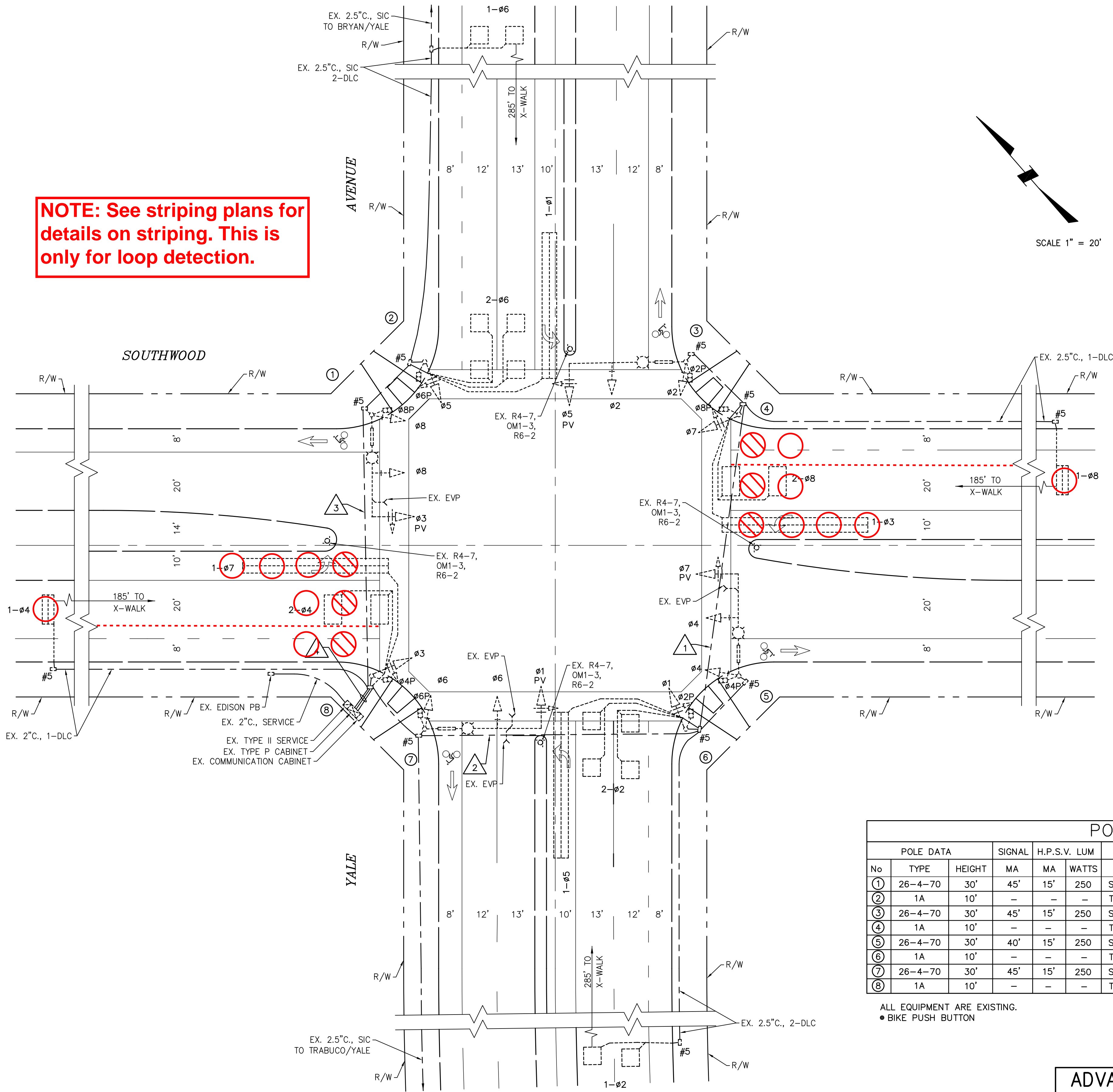
SENSOR SCHEDULE			
SENSOR UNIT	CHANNEL	ULTIMATE	EXISTING
1	1	5-#2	
	2	6-#2	
	3	1-#5	
2	4	2-#5	
	1	4-#4	
3	2	5-#4	
	3	1-#7	
4	4	2-#7	
	1	5-#6	
5	2	6-#6	
	3	1-#1	
6	4	2-#1	
	1	4-#8	
7	2	5-#8	
	3	1-#3	
8	4	2-#3	
	1 ●▲	1-#2	
9	2 ●▲	2-#2	
	3 ●▲	3-#2	
10	4 ●▲	4-#2	
	1 ●▲	1-#4	
11	2 ●▲	2-#4	
	3 ●▲	3-#4	
12	4 ●▲	1-#6	
	1 ●▲	2-#6	
13	2 ●▲	3-#6	
	3 ●▲	4-#6	
14	4 ●▲	1-#8	
	1 ●▲	2-#8	
15	2 ●▲	3-#8	
	3 ■	7-#2	
16	4 ■	7-#6	

POLE SCHEDULE															
STANDARD					LUMINAIRE HPVS	SIGNAL MTG.			PED PUSH BUTTON		POLE LOCATION				I.S.N.S.
No.	TYPE	HEIGHT	SIG. M.A.	LUM. M.A.		VEH.	M.A.	PED.	PHASE	QUAD.	E	B	C	N	LEGEND (Double Face)
(1)	24-4-70	30'	30'	15'	250W	SV-1-T	2-MAS	SP-1-CS	6	S	EXISTING				Bryan
(2)	1A	10'	-	-	-	TV-1-T	-	SP-1-CS	8/6	W/S	EXISTING				-
(3)	26-4-70	30'	40'	12'	250W	SV-1-T	MAS	SP-1-CS	8	W	EXISTING				Eastwood
(4)	1A	10'	-	-	-	TV-1-T	-	SP-1-CS	2/8	N/W	EXISTING				-
(5)	24-4-70	30'	35'	15'	250W	SV-1-T	2-MAS	SP-1-CS	2	N	EXISTING				Bryan
(6)	1A	10'	-	-	-	TV-1-T	-	SP-1-CS	4/2	E/N	EXISTING				-
(7)	26-4-70	30'	45'	15'	250W	SV-1-T	MAS	SP-1-CS	4	E	EXISTING				Eastwood
(8)	1A	10'	-	-	-	TV-1-T	-	SP-1-CS	6/4	S/E	EXISTING				-

ADVANTEC CONSULTING ENGINEERS
AS-BUILT SURVEY DATE: 4/18/2011

	2/88	AUSTIN FOUST AND ASSOCIATES				<div> <div> DRAWN BY: _____ DATE </div> <div> DESIGNED BY: _____ DATE </div> <div> CHECKED BY: _____ DATE </div> </div>	<div> <div>APPROVED BY:</div> <div>DESIGN ENGINEER</div> </div>	<div> TRAFFIC SIGNAL MODIFICATION PLAN BRYAN AVENUE AT EASTWOOD </div>	PLAN CHECK NO.
	4/11	ADVANTEC CONSULTING ENGINEERS							PERMIT NO.
									SHEET
									1
									OF 1

CONDUCTOR SCHEDULE					
AWG	CIRCUIT	RUN No.			
		1	2	3	4
#14	Ø1	—	3	—	6
	Ø2	3	3	—	6
	Ø3	—	—	3	6
	Ø4	—	3	—	3
	Ø5	3	3	3	6
	Ø6	—	—	—	3
	Ø7	3	3	—	6
	Ø8	—	—	3	3
	Ø2P	2	2	—	4
	Ø4P	—	2	—	4
	Ø6P	—	—	2	4
	Ø8P	2	2	2	4
	Ø2 PPB	1	1	—	2
	Ø4 PPB	—	1	—	1
	Ø6 PPB	—	—	1	1
	Ø8 PPB	1	1	1	2
#14	PPB, BPB COMMON	1	1	1	2
	SPARES	3	3	3	6
#14	TOTAL	20	30	20	73
	ISNS	2	2	2	2
#10	SIGNAL COMMON	1	1	1	2
	LUMINAIRE	2	2	2	4
#10	TOTAL	3	3	3	6
DET. LOOP CABLE 2 #16 (TYPE B)	Ø1	—	—	1	1
	Ø2	—	2	—	2
	Ø3	1	1	—	1
	Ø4	—	—	—	2
	Ø5	—	1	—	1
	Ø6	—	—	2	2
	Ø7	—	—	—	1
	Ø8	2	2	—	2
EVP	TOTAL	3	6	3	12
	SIC	1	1	1	3
CONDUIT SIZE		3"	3"	3"	3-3"
ALL CONDUITS & CONDUCTORS ARE EXISTING					



EXISTING PHASE DIAGRAM			
Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

SENSOR SCHEDULE			
SENSOR UNIT	CHANNEL	ULTIMATE	EXISTING
1	1	5-Ø2	
	2	6-Ø2	
	3	1-Ø5	
2	4	2-Ø5	
	1	4-Ø4	
3	2	5-Ø4	
	3	1-Ø7	
4	4	2-Ø7	
	1	5-Ø6	
5	2	6-Ø6	
	3	1-Ø1	
6	4	2-Ø1	
	1	4-Ø8	
7	2	5-Ø8	
	3	1-Ø3	
8	4	2-Ø3	
	1	1-Ø2	
9	2	2-Ø2	
	3	3-Ø2	
10	4	4-Ø2	
	1	1-Ø4	
11	2	2-Ø4	
	3	3-Ø4	
12	4	4-Ø4	
	1	1-Ø6	
13	2	2-Ø6	
	3	3-Ø6	
14	4	4-Ø6	
	1	1-Ø8	
15	2	2-Ø8	
	3	3-Ø8	
16	4	7-Ø2	
	1	7-Ø6	

- CALL HOLD
- CALL DELAY
- ▲ SYSTEM SAMPLING

POLE SCHEDULE											
POLE DATA			SIGNAL		H.P.S.V. LUM	SIGNAL MOUNTING			PED PUSH BUTTON		TYPE "A" SIGN (DOUBLE SIGN)
No	TYPE	HEIGHT	MA	MA	WATTS	VEH	MA	PED	PHASE	POLE QUAD	
①	26-4-70	30'	45'	15'	250	SV-1-T	2-MAS	SP-1-CS	6	E	Yale
②	1A	10'	—	—	—	TV-1-T	—	SP-1-CS	8/6●	S/E	—
③	26-4-70	30'	45'	15'	250	SV-1-T	2-MAS	SP-1-CS	8	S	Southwood
④	1A	10'	—	—	—	TV-1-T	—	SP-1-CS	2/8●	W/S	—
⑤	26-4-70	30'	40'	15'	250	SV-1-T	2-MAS	SP-1-CS	2	W	Yale
⑥	1A	10'	—	—	—	TV-1-T	—	SP-1-CS	4/2●	N/W	—
⑦	26-4-70	30'	45'	15'	250	SV-1-T	2-MAS	SP-1-CS	4	N	Southwood
⑧	1A	10'	—	—	—	TV-1-T	—	SP-1-CS	6/4●	E/N	—

ALL EQUIPMENT ARE EXISTING.
● BIKE PUSH BUTTON

NOTES ON THIS SHEET

ADVANTEC CONSULTING ENGINEERS
AS-BUILT SURVEY DATE: 05/20/2011

V	7/90	AUSTIN-FOUST ASSOCIATES, INC.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</
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Design Guidance

Colored Bike Facilities

Required Features

- 1 The color green shall be used to minimize confusion with other standard traffic control markings.¹⁹
- 2 Color shall be applied to the road surface to delineate space, increase visibility, and emphasize proper vehicle priority.¹⁹
- 3 Normal white bike lane lines shall be provided along the edges of the colored lane to provide consistency with other facilities and to enhance nighttime visibility.

Recommended Features

- 4 The colored surface should be skid resistant and retro-reflective.
- 5 A "Yield to Bikes" sign should be used at intersections or driveway crossings to reinforce that bicyclists have the right-of-way at colored bike lane areas.¹⁹
- 6 The configuration of color should be consistently applied throughout the corridor.

Optional Features

- 7 Color may be applied within conflict areas for increased visibility of bicyclists.
- 8 Color may be applied along a dashed pattern within a dashed bicycle lane to indicate merging areas. Dashed application of colored pavement mimics typical traffic striping layouts, where dashed markings indicate areas where merging maneuvers are permitted.¹⁹
- 9 Color may be applied along a corridor, with gaps in coloring to denote crossing areas. When used in this fashion, color can distinguish the bicycle facility along its entire length. This is particularly useful in high traffic situations or areas where traffic may encroach into the bike facility.¹⁹
- 10 Color may be used to supplement shared lane markings for added visibility.¹⁹

Color in Conflict Areas



Color in Bikeway Corridor



Dashed Color in Conflict Area



Use white bars and not colored bars. Bike lane varies from 4' - 8' (depending on application), white bars are 4' wide and spaced every 8' O.C.



TUCCON, AZ



SAN FRANCISCO, CA (PHOTO: SFSTRIPES.ORG)



CHICAGO

Best estimates for safety effects of one bike cycle crossing in a junction are a reduction of 10% in accidents and 19% in injuries.

Source: G. S. (2009). Safety effects of bike crossings: a review of the literature. *Transportation Research Board*, 2668, 1-10.

**THE FOLLOWING APPENDICES ARE ON FILE WITH
THE PUBLIC WORKS DEPARTMENT:**

- APPENDIX D - STANDARD PLANS
- APPENDIX E - FORTA-FI PRODUCT INFORMATION AND
MANUFACTURER SPECIFICATION

Funding Summary
Annual Street Rehabilitation and Slurry Seal Project
July 10, 2018

Project Expenditures

Construction Contract – City Items	\$ 6,173,440
Construction Contract – IRWD Items	\$ 962,200
Construction Engineering – City	\$ 340,000
Construction Engineering – IRWD	\$ 38,488
Construction Contingency	<u>\$ 450,000</u>
Total Estimated Project Cost	\$ 7,964,128

Project Funding

CIP 311901, 2018-19 Street Rehabilitation and Slurry Seal	\$ 6,963,440
IRWD Reimbursement Funds	<u>\$ 1,000,688</u>
Total Funding Available	\$ 7,964,128

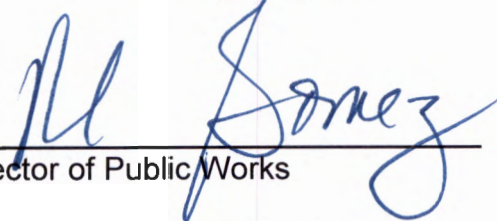
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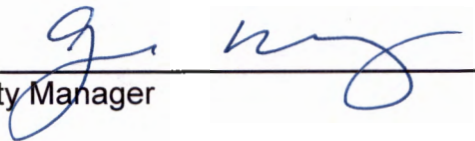
REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: APPROVAL OF PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR TURTLE ROCK COMMUNITY PARK ACCESSIBILITY
IMPROVEMENTS



Director of Public Works



City Manager

RECOMMENDED ACTION

1. Approve the construction plans, specifications and contract documents for Turtle Rock Community Park Accessibility Improvements, Capital Improvement Projects 361705 and 361813.
2. Approve the Engineer's Estimate, Construction Contingency and Project Funding Summary.
3. Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

EXECUTIVE SUMMARY

Construction plans, specifications, and contract documents for the Turtle Rock Community Park Accessibility Improvements are complete and ready for City Council approval. These documents are available for public review in the Public Works department. Turtle Rock Community Park is located at 1 Sunnyhill and has two public buildings, the Community Center and the Nature Center (Attachments 1 and 2). The proposed improvements include upgrading the public service counters at each building, installing new chair lifts for the interior and exterior performance stages, and upgrading restrooms and door hardware throughout both buildings.

Approval of the recommended actions will allow staff to proceed with solicitation of competitive bids for construction and award of a contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures within the approved project budget.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

On June 5, 2018, the Irvine Residents with Disabilities Advisory Board reviewed the proposed accessibility improvements and voted 7-0-6 (Board members Chockalingam,

Stern, Choi, Constantin, Drayer, Gibbons and Harvey voting in favor; Board members Felix, Gustin, McLaughlin, Money, Niggl, and Robert absent) to recommend that the City Council approve the accessibility improvements at Turtle Rock Community Park.

ANALYSIS

The Turtle Rock Community Center and Nature Center buildings were constructed in 1979 and various elements of these buildings are no longer compliant with present Americans with Disabilities Act (ADA) requirements. A summary of the proposed improvements is provided as Attachment 3 and include the following elements:

- The restrooms at the Community Center and Nature Center will be reconstructed to comply with ADA requirements. The proposed restroom improvements include installation of new plumbing fixtures, wall fixtures, partitions, countertops, mirrors, flooring, wall tiles and paint.
- Wheelchair lifts will be installed at the interior and exterior performance stages at the Community Center. In addition, ADA compliant handrails will be installed along the stage stairs to improve accessibility to the elevated stage areas.
- The public service counters at the Community Center and Nature Center will be reconstructed to provide wheelchair accessibility. Additionally, existing door hardware throughout both buildings will be replaced with ADA compliant hardware.

The construction contract estimate prepared by the consultant design engineer is \$550,000. A budget allowance of \$15,000 for labor compliance review, \$10,000 for construction engineering (materials testing) and \$44,000 for construction contingency is recommended, as shown in the Project Funding Summary (Attachment 4). The City's construction contracting policies and procedures limit the award of the construction contract by staff to a maximum of 10 percent over the engineer's estimate. These policies also restrict the use of the construction contingency only for unforeseen circumstances that may arise and are necessary to complete the work within the approved project scope and budget.

Staff is seeking City Council approval to proceed with soliciting competitive bids for construction. A copy of the Notice Inviting Bids, Construction Contract, Plans, Specifications and the proposed Schedule of Work listing the bid items for this project is included as Attachment 5. If approved by the City Council, construction is anticipated to begin in October 2018 with completion by March 2019. Work activity will take place primarily Monday through Friday between the hours of 7 a.m. and 4 p.m. All work activity will be coordinated with Turtle Rock Community Center staff to minimize inconvenience to the public during construction.

ENVIRONMENTAL REVIEW

Pursuant to Section 4 of the City of Irvine California Environmental Quality Act (CEQA) Manual and Article 19 of the State of California CEQA Guidelines, the proposed project is categorically exempt from the requirements of CEQA, under State Guideline Section 15301, Class 1 (d), Existing Facilities.

ALTERNATIVES CONSIDERED

The City Council could direct staff to defer the accessibility improvements to a future date or may direct staff to modify any of the elements of the project scope. The City Council may also approve the construction plans and related documents, authorize staff to solicit competitive bids and direct staff to bring back the results of the competitive bid process to the City Council for its review and consideration prior to award of the contract.

FINANCIAL IMPACT

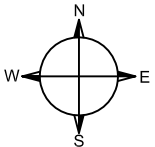
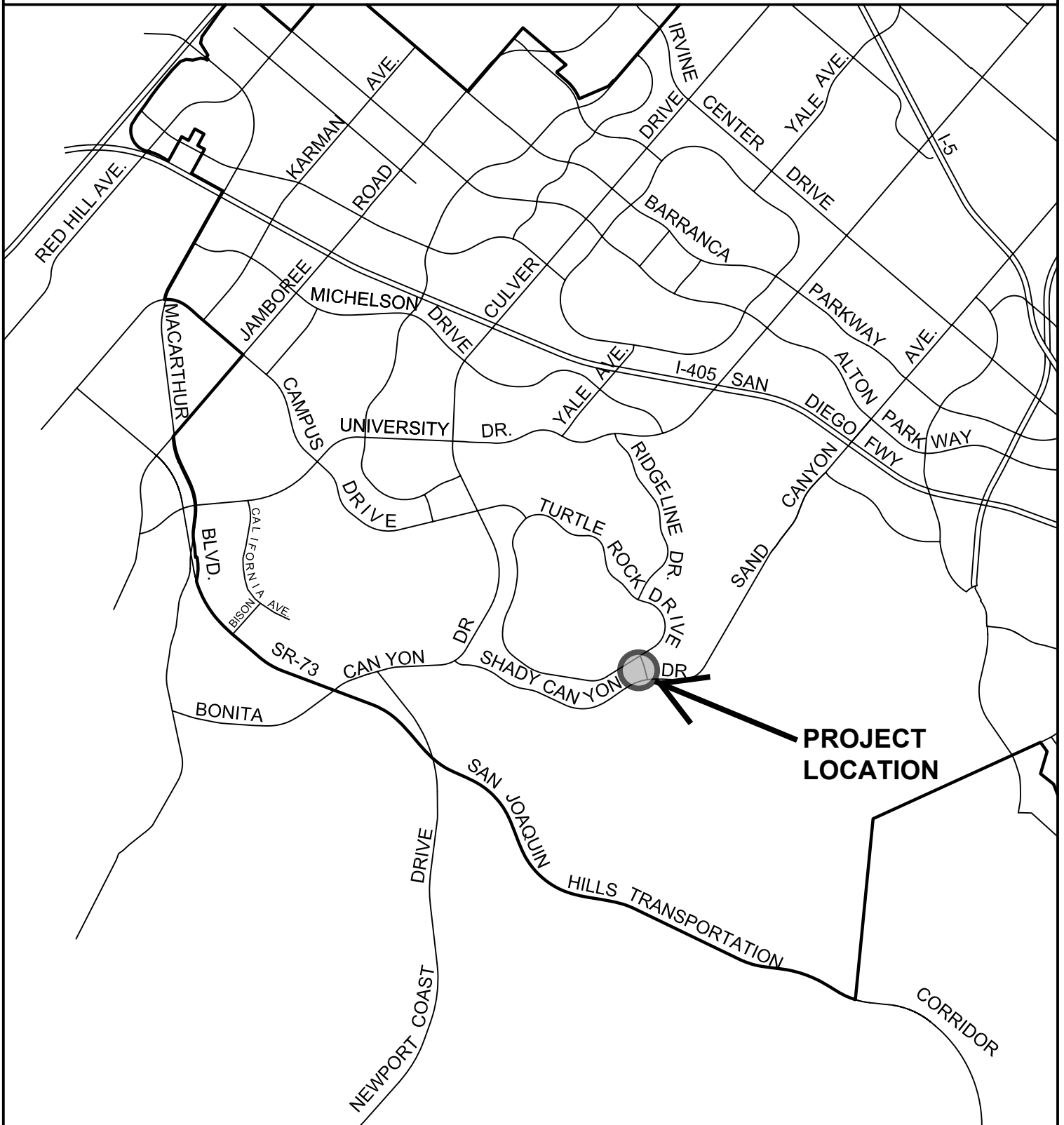
Project expenditures to date for preparation of the construction plans and contract documents total \$29,450. The construction contract estimate prepared by the consultant design engineer is \$550,000. The recommended budget allowance of \$15,000 for labor compliance review, \$10,000 for construction engineering and \$44,000 for construction contingency brings the total estimated project cost for the construction phase to \$648,450. Funding is available in City Council approved CIPs 361705 and 361813 from a combination of System Development Charge fees and Community Development Block Grant (CDBG) funds. A complete Project Funding Summary for this project is provided in Attachment 4.

REPORT PREPARED BY Reza Jafari, Senior Project Manager

ATTACHMENTS

1. Vicinity Map
2. Site Map
3. Summary of Accessibility Improvements
4. Project Funding Summary
5. Notice Inviting Bids, Construction Contract, Plans, Specifications and Proposed Schedule of Work

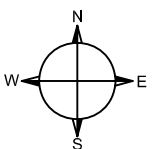
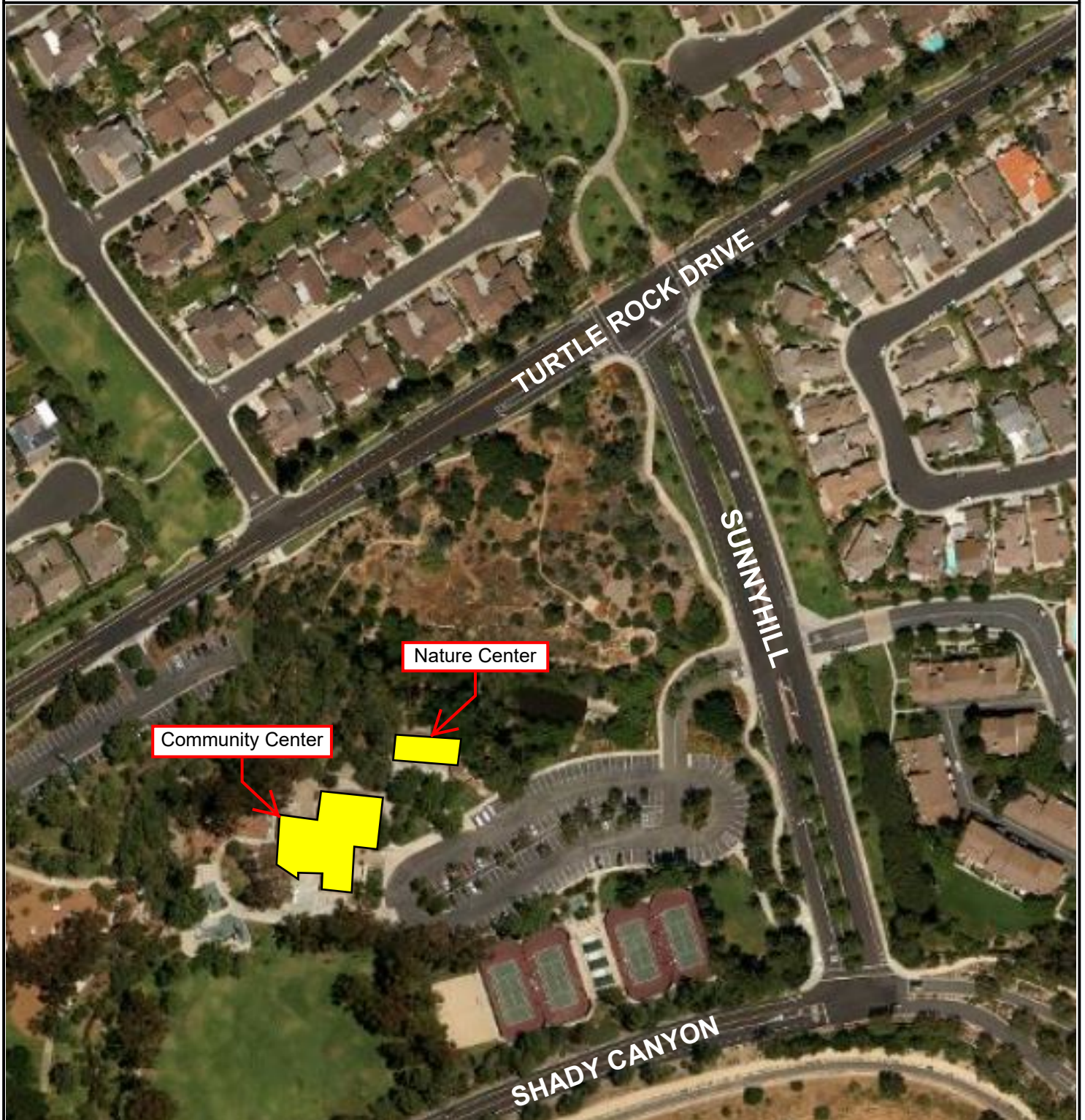
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS



VICINITY MAP



TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS



SITE MAP



Summary of Accessibility Improvements

Turtle Rock Community Park Accessibility Improvements

July 10, 2018

<u>Description of Improvement</u>	<u>Quantity</u>
Public Service Counter Upgrades (CC & NC)	2
Interior Chair Lift Installation at Community Center Stage	1
Exterior Chair Lift Installation at Community Center Stage	1
Handrail Installation at Community Center Stage Stairs	2
Door Hardware Replacement (CC & NC)	29
Restroom Upgrades (CC & NC)	2

Abbreviations:

CC – Community Center

NC – Nature Center

Project Funding Summary

Turtle Rock Community Park Accessibility Improvements

CIP 361705 and 361813

July 10, 2018

Project Expenditures

Design Engineering	\$ 29,450
Construction (Engineer's Estimate)	\$ 550,000
CDBG Labor Compliance Review	\$ 15,000
Construction Engineering	\$ 10,000
Construction Contingency	<u>\$ 44,000</u>
Total Estimated Project Cost	\$ 648,450

Project Funding

CIP 361705 – FY 16-17 ADA Facility Improvement	\$ 250,000
CIP 361813 – FY 17-18 CDBG/Community Facility ADA	<u>\$ 398,450</u>
Total Funding Available	\$ 648,450



CITY OF IRVINE
ORANGE COUNTY, CALIFORNIA

**NOTICE INVITING BIDS, PROPOSAL,
CONTRACT AND SPECIAL PROVISIONS**

FOR

**TURTLE ROCK COMMUNITY PARK
ACCESSIBILITY IMPROVEMENTS**

CIP 361705 AND 361813

BID NO. 19-1441

CITY OF IRVINE
ONE CIVIC CENTER PLAZA
P.O. BOX 19575
IRVINE, CALIFORNIA 92623-9575

JULY 2018

SECTION 00 01 05 - CERTIFICATION

TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS

CIP 361705 AND 361813

THE SPECIFICATIONS CONTAINED HEREIN HAVE BEEN PREPARED BY OR UNDER THE
DIRECTION OF:



Rubio Medina, Architect
RM Architecture
License No. C30059

06.18.18

Date

APPROVED BY:



James Houlihan, P.E.
City Engineer
R.C.E. No. 51568

6/21/2018

Date

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END OF SECTION

**SECTION 00 11 13 - NOTICE INVITING BIDS
CITY OF IRVINE, CALIFORNIA**

BID NO. 19-1441

NOTICE IS HEREBY GIVEN that sealed bids with online bid price submittal will be received by the Purchasing Agent of the City of Irvine, California, for furnishing all labor services, materials, tools, equipment, supplies, transportation, utilities and all other items and facilities necessary therefore, as provided in the contract documents for **Turtle Rock Community Park Accessibility Improvements** together with appurtenances thereto, in strict accordance with the Specifications on file at the Department of Public Works, 6427 Oak Canyon, Bldg. 1, Irvine, California 92618-5202.

DATE OF OPENING BIDS: Bid prices for each line item of the Schedule of Work must be entered and all other required documents for the bid proposal packet (pages 00 41 00-1 through 00 41 00-2, 00 41 00-5 through 00 41 00-18) must be uploaded to the BidsOnline system in accordance with the instructions beginning on page 00 41 00-3 no later than XX:00:00 a.m. on Month XX, 2018 at which time bids will be publicly read aloud at 1 Civic Center Plaza, Irvine, California, 92606-5207. No late bids will be accepted. No other method of bid submittal will be accepted.

LOCATION OF THE WORK: The work to be performed hereunder is located in the City of Irvine, County of Orange, at **Turtle Rock Community Park, 1 Sunnyhill, Irvine, CA 92603**

MANDATORY PRE-BID MEETING: There will be a **mandatory** pre-bid meeting on **Day, Month XX, 2018, at XX:XX a.m. at the Turtle Rock Community Park, 1 Sunnyhill, Irvine, CA 92603**. Failure to attend will result in your bid being declared non-responsive.

DESCRIPTION OF WORK: The work to be performed shall include, but not be limited to:

The work consists of various improvements to the Turtle Rock Community Center and Nature Center located at 1 Sunnyhill, Irvine, CA. The project includes upgrades to the public service counters, installation of new chair lifts and handrails, replacement of door hardware, and reconstruction of the restrooms to comply with the requirements of the Americans with Disabilities Act (ADA) and other items not mentioned here, but are required by the Plans and Special Provisions. The Engineer's construction cost estimate for the project is \$550,000.

LICENSE REQUIREMENT: **Prime Contractor must possess a valid Class B license.** At the time of submitting the bid, the Bidder shall be licensed as a contractor in accordance with the provisions of California Business and Professions Code Chapter 9, Division 3.

In accordance with California Public Contract Code Section 20103.5, when federal funds are involved in local agency contracts, no bid shall be invalidated by the failure of the bidder to be licensed in California at the time of bid opening. However, at the time of award, the selected contractor shall be properly licensed in accordance with the laws of the state.

DEBARRED CONTRACTORS: The City of Irvine Municipal Code Section 2-12-101 *et seq.* sets forth procedures to debar Contractors from bidding or performing work on City of Irvine contracts at any tier, whether prime, subcontractor, etc. Accordingly, certain Contractors have been debarred and are listed on the City's website at www.cityofirvine.org/purchasing. Click on the link which states: "For a list of Debarred Contractors, please click here."

COMPLETION OF WORK AND LIQUIDATED DAMAGES: All work shall be completed in a total of **Eighty (80) Working Days** from the date specified in the Notice to Proceed. Liquidated damages shall be **One Thousand Dollars (\$1,000)** per Calendar Day, for each and every Calendar Day delay in finishing the Work.

AWARD OF CONTRACT: The award of the Contract, if it is awarded, will be to the lowest responsive and responsible Bidder whose bid complies with all the requirements prescribed. The City reserves the right, after opening bids, to reject any or all bids, to waive any informality in a bid, to make awards in the interest of the City, and to reject all other bids.

PROPOSAL GUARANTEE AND BONDS: Each bid shall be accompanied by a scanned copy of a certified or cashier's check or corporate surety bond issued by a surety company, admitted to do business in the State of California, on the form furnished by the City as guarantee that Bidder will, if an award is made to him in accordance with the terms of his bid, promptly secure Workers' Compensation insurance, and liability insurance, execute a contract in the required form, and furnish satisfactory bonds for the faithful performance of the contract ("Performance Bond") and for the payment of claims of materialmen and laborers thereunder ("Payment Bond"). Said check or bidder's bond shall be in an amount of not less than ten percent (10%) of the amount of the bid. **Bidders with the apparent three lowest responsive bids shall deliver an original hard copy of the certified check, cashier's check or surety bond to the Receptionist for the Purchasing Agent at 1 Civic Center Plaza, Irvine, CA, 92606 within two business days of the bid opening date. Failure to submit the original check or bidder's bond shall result in the bid being declared non-responsive.** The Performance and Payment Bonds shall be not less than one hundred percent (100%) of the total amount of the bid price named in the contract. Only bonds issued by companies admitted to do business in the State of California will be accepted in accordance with the Code of Civil Procedure Section 995.311. Failure to submit acceptable Payment and Performance Bonds as required shall result in a rejection of the bid and a forfeiture of the proposal guarantee.

PREVAILING RATES OF WAGES: **Prevailing wage requirements apply to public works projects with a value exceeding \$1,000.00. The definition of "public works" is found at Labor Code Section 1720, et seq.**

The CITY is subject to the provisions of law relating to public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by CONTRACTOR. CONTRACTOR shall abide by all applicable Sections of the California Labor Codes including Sections 1770 -1781, et seq. In accordance with the provisions of Section 1773 of the California Labor Code, the general prevailing rates of per diem wages and holiday and overtime work in the locality in which the Work is to be performed shall be in accordance with the rates posted on the Department of Industrial Relations website, found at <http://www.dir.ca.gov/dirdatabases.html>. The CONTRACTOR, and any subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of this Agreement.

The CITY reminds all contractors and subcontractors of the adoption of **SB 96**, and encourages them to understand and comply with the requirements as set forth on the Department of Industrial Relations (DIR) website at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>. All contractors and subcontractors who plan to bid on a public works project when the project is for construction, alteration, demolition, installation, or repair work with a value exceeding \$25,000.00 must first be registered and pay an annual fee with the DIR. Additionally, all contractors and subcontractors who plan to bid on public works projects involving maintenance work with a value exceeding \$15,000.00 must first be registered and pay an annual fee with the DIR. The CITY requires all contractors and subcontractors to be registered with the DIR prior to submitting a bid meeting these parameters. Subject to the exceptions set forth in Labor Code Section 1725.5, bids from contractors that are not currently registered will be deemed nonresponsive. Further, the CITY will not award a contract to and no contractor or subcontractor will be allowed to work on a CITY public works project meeting these parameters unless they are registered with the DIR pursuant to Labor Code Section 1725.5. Please visit the DIR website for further information.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

This contract will be funded in whole or in part with federal housing and community development funds. The Federal Labor Standards Provisions, including prevailing wage requirements of the Davis-Bacon and Related Acts will be enforced. A copy of the Federal Wage Decision applicable to this project is included in the Bid Document.

This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the higher of the two applicable prevailing wage rates, federal or state, will be enforced. The Contractor's duty to pay State prevailing wages can be found under Labor Code Section 1770 et seq. Labor Code Sections 1775 and 1777.7 outline the penalties for failure to pay prevailing wages and to employ apprentices, including forfeitures and debarment. The State Wage Decision is on file at the City Clerk's office, and is also available online at <http://www.dir.ca.gov/dlsr/>.

APPRENTICESHIP PROGRAM: Attention is directed to Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code and Title 8, California Administrative code, Section 200 et seq. to ensure compliance and complete understanding of the law regarding apprentices.

MINORITY AND WOMEN OWNED BUSINESS: Bidders will be required to document their status as a Minority Business Enterprise (MBE), a Women-owned Business Enterprise (WBE) or a non-MBE/WBE firm. Bidders that are not MBE/WBE firms will be required to make a good faith effort, and to document their efforts to include firms as part of the contract bid.

SECTION 3 STATEMENT: This is a HUD Section 3 construction contract. First preference will be given to a bidder who provides a reasonable bid and is a qualified Section 3 Business Concern. Second preference will be given to a bidder who provides a reasonable bid and commits to achieving the Section 3 employment, training and subcontracting opportunity goals by submitting a written commitment (Economic Opportunity Plan).

CONFLICT OF INTEREST: In the procurement of supplies, equipment, construction, and services by sub-recipients, the conflict of interest provisions in (State LCA - 24 CFR 85.36 and Non-Profit Organizations – 24 CFR 84.4), OMB Circular A-110, and 24 CFR 570.611, respectively, shall apply. No employee, officer or agent of the sub-recipient shall participate in selection, or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved.

LABOR REGULATIONS: The Contractor shall comply with all applicable requirements of the California Labor Code and the City of Irvine Municipal Code.

PLANS AND SPECIFICATIONS: A full set of bid documents consisting of Notice Inviting Bids, Proposal, Contract, Special Provisions and Contract Plans are available for inspection without charge at the Department of Public Works, Project Management Division, City of Irvine Operations Support Facility, 6427 Oak Canyon, Building 1, Irvine, California 92618-5202.

To obtain a copy of the bid documents, please visit the City of Irvine's website at www.cityofirvine.org/purchasing. Click on the "[Supplier Registration and Bid Opportunities](#)" link, and review the information about our online system. Next, click on the "[BidsOnline](#)" link. If you are not currently registered with the City of Irvine, please click on the "[New Vendor Registration](#)" button and

then complete the electronic supplier registration process, including selecting Category Code(s) describing the goods and/or services you provide, as well as entering your Contractors State License information. After registering your firm, click on the "[Bid Opportunities](#)" button to view and download the Bid Documents, which include the [complete](#) Notice Inviting Bids document. Contractors must registered on the City's website and download the Bid Documents in order to submit a bid. Contractors must also check the website periodically for addenda information as failure to download any and all addenda will result in bid disqualification.

SECURITY FOR COMPLETION OF WORK: The Contract Documents establish a provision for monthly progress payments based upon the percentage of work completed as determined by the Engineer. The City will retain a portion of each progress payment as security for completion of the balance of the work. At the request and expense of the successful bidder, the City will pay the amount so retained upon compliance with the requirements of California Public Contract Code § 22300 and the provisions of the Contract Documents, Special Provisions Subsection 9-3.2.2 pertaining to "Substitution of Securities."

PROJECT ADMINISTRATION: All questions relative to this project prior to opening bids shall be prepared in writing and transmitted to the attention of Reza Jafari, Senior Project Manager, by email to rjafari@cityofirvine.org with a copy to Mr. Brian Brown, Senior Buyer, bbrown@cityofirvine.org. No inquiries will be accepted later than five (5) business days prior to the bid opening date as this would not allow time to respond to all plan holders. No phone inquiries will be accepted.

CITY OF IRVINE

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Month XX, 2018

END OF SECTION

SECTION 00 21 13 - INSTRUCTION TO BIDDERS, PROPOSAL REQUIREMENTS AND CONDITIONS

1.01 CONTRACT DOCUMENTS: The Contract Documents shall consist of:

- A. Permits and Agreements
- B. Contract
- C. Addenda
- D. Instructions to Bidders, Proposal Requirements and Conditions
- E. Special Provisions
- F. Contract Plans
- G. Reference Specifications
- H. City of Irvine Park/Public Facility Standards dated May 20, 2015,

all of which are on file at the City of Irvine in the Public Works Department, Project Management Division, Operations Support Facility, 6427 Oak Canyon, Bldg. 1, Irvine, California, and are hereby referred to and made a part hereof.

1.02 BID PROPOSALS: To be considered, bids shall be made in accordance with the following instructions:

- A. For the convenience of bidders, the "SCHEDULE OF WORK" has been posted on the City's BidsOnline system. Bidders must enter their unit price information online in accordance with the INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS included herein. Unit prices must be entered online and then the extended prices and total bid price will be automatically calculated.
- B. Bids shall be submitted only on bid items stated in the Bid Documents; bids on other bases will not be considered. Bids that are not submitted on the prescribed forms and in accordance with the INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS may be rejected.
- C. Unless called for, additive bids will not be considered.
- D. Pursuant to the provisions of Public Contract Code § 4101 to 4108, inclusive, every Bidder shall set forth in its bid:
 - 1. The Bidder shall list the name, license number and location of the place of business of each subcontractor performing work in an amount in excess of one-half of one percent (1/2%) of the prime contractor's total bid.
 - 2. The bid item numbers and the percentage of the bid item subcontracted.
- E. In the event additive bids are called for and the Bidder intends to use different or additional subcontractors on the additive(s), the Bidder shall fill out additional forms of the list of subcontractors and shall identify such forms with relation to whether they apply to the base or additive bids.
- F. If the Bidder fails to specify a subcontractor for any portion of the work to be performed under the contract in excess of one-half of one percent (1/2%) of the Bidder's total bid, the Bidder agrees to perform that portion of work himself. The successful Bidder shall not, without the consent of the City, either:
 - 1. Substitute any person, firm or corporation as subcontractor in place of the subcontractor designated in the original bid, or

2. Permit any subcontract to be assigned or transferred or allow the work to be performed by anyone other than the original subcontractor listed in the bid.
- G. If required in the Notice Inviting Bids, bids shall be accompanied by a certified or cashier's check or an acceptable corporate bid bond on the form furnished by the City for an amount not less than ten percent (10%) of the bid, made payable to the order of the City of Irvine. The check or bid bond shall be a guarantee that the Bidder will enter into a contract and provide all required insurance and bonds if awarded the work; and in case of refusal or failure to enter into the contract, the check or bid bond shall be forfeited. The City will return Bidder's check if the project is not awarded to Bidder.

Only bonds issued by companies admitted to do business in the State of California will be accepted, in accordance with Code of Civil Procedure § 995.311 and Insurance Code § 12090.
- H. Before submitting a bid, bidders shall carefully examine the work site, the Contract Documents and the form of Contract and shall fully inform themselves about all existing conditions and limitations. Bidders shall include in their bids a sum to cover the cost of all work included in the Contract.
- I. Bid prices must be entered and the bid proposal packet must be uploaded to the BidsOnline System on or before the day and hour set for the bid opening in the Notice Inviting Bids. No other method of bid submittal will be accepted. Bidders with the three apparent lowest responsive bids shall deliver an original hard copy of the certified check, cashier's check or surety bond to the Receptionist for the Purchasing Agent at 1 Civic Center Plaza, Irvine, CA, 92606 within two business days of the bid opening date.
- J. A bid may be considered non-responsive if it does not comply with the requirements set forth in these bid documents. A responsive bid is one that complies with the solicitation in all acceptability and material respects and contains no material defects.

1.03 WITHDRAWAL OF BIDS:

Bids may be withdrawn at any time before the bid deadline, by going back into the BidsOnline system and selecting "Withdraw."

1.04 INTERPRETATION OF DRAWINGS AND DOCUMENTS; REQUESTS FOR CLARIFICATION:

If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the plans and specifications, or other proposed Contract Documents, or finds discrepancies in, or omissions from, the drawings or specifications, he shall submit to the Purchasing Agent a written request for all interpretations or corrections thereof via email to the project manager and purchasing staff prior to the deadline for submitting questions, as set forth in the Notice Inviting Bids section herein. Any clarification or correction of the proposed documents will be made only by Addendum duly issued, with notice provided to all firms who downloaded the bid documents from the City's website. The City is not responsible for any other explanations or interpretations of the proposed documents.

1.05 ADDENDA TO THE CONTRACT DOCUMENTS:

- A. Any addenda issued during the time of bidding, or forming a part of the Contract Documents after the Bidder has downloaded the bid documents from the City's website, shall be taken into account in the bid and shall be made a part of the Contract.
- B. Addenda may be issued by the City of Irvine for any reason, including but not limited to, clarifying or correcting the Notice Inviting Bids, Special Provisions, Plans, or Bid.

- C. Bidders will be notified of such Addenda during the period of advertising, either by email or posting on the City's website, provided however, each Bidder shall be solely responsible for obtaining any such Addenda.
- D. The Bidder shall acknowledge the receipt of Addenda on the City's BidsOnline system.

1.06 BIDDER RESPONSIVENESS:

Failure of the Bidder to provide requested information in a complete and accurate manner may be considered non-responsive resulting in rejection of the bid. The use of "N/A" or "n/a" in response to any request for information without an explanation as to why that abbreviation is being used may render the bid non-responsive.

1.07 BIDDER RESPONSIBILITY:

Bidders are hereby notified that, in accordance with the City of Irvine Municipal Code § 2-12, the City may make a determination that the Contractor is non-responsible if the hearing officer finds evidentiary support that the Bidder has committed any of the following: (1) violated a term of a contract, present or past, with the City or other entity; (2) committed an act or omission which negatively reflects on the Contractor's quality, fitness, or capacity to perform a contract with the City or any other entity or engaged in a pattern or practice which negatively reflects on the same; (3) committed an act or omission which evidences a lack of business integrity or business honesty; (4) made or submitted a false claim against the City or any other entity; or (5) received a fine or citation for performing work in an unsafe manner; or (6) violated a condition, rule, regulation, permit, or standard applicable to a contract with the City or any other entity. In arriving at his or her determination, the hearing officer may consider Bidder's past conduct on City projects or on any other public or private projects upon which Bidder performed work.

1.08 BIDDER DEBARMENT:

Bidders are hereby notified that, in accordance with the City of Irvine Municipal Code § 2-12, the City may make a determination that the Bidder shall be debarred if the hearing officer finds evidentiary support that the Bidder has committed any of the following: (1) violated a term of a contract, present or past, with the City or other entity; (2) committed an act or omission which negatively reflects on the Contractor's quality, fitness, or capacity to perform a contract with the City or any entity or engaged in a pattern or practice which negatively reflects on the same; (3) committed an act or omission which evidences a lack of business integrity or business honesty; (4) made or submitted a false claim against the City or any other entity; (5) received a fine or citation for performing work in an unsafe manner; or (6) violated a condition, rule, regulation, permit, or standard applicable to a contract with the City or any other entity. In arriving at his or her determination, the hearing officer may consider past conduct of the Contractor on City projects or on any other public or private projects which Contractor performed work.

1.09 OPENING BIDS:

Bids will be publicly opened and read at the time and place set in the Notice Inviting Bids.

1.10 BID PROTEST PROCEDURES:

A. BASIS FOR PROTEST:

It is the policy of the City to ensure that free and open competition takes place in all procurement activities. If, in the course of a procurement action, an interested party has reason to believe that these conditions do not exist, the interested party may file a protest in accordance with the provisions of these procedures with the City of Irvine Purchasing Agent requesting a review of the claim and a timely resolution of the issue. Any bidder on a project for which it submitted a timely bid may protest the contract

award for that project; however, subcontractors, suppliers or other third parties may not protest contract awards. Moreover, complaints about alleged ambiguity of the bid documents and/or estimates are not appropriate subject matters for bid protests.

B. BID PROTEST CONTENTS:

The bid protest shall be submitted in writing via email to the attention of the Purchasing Agent. The written protest shall include:

1. The solicitation number and project description.
2. The name, address, phone number, and email address of the protesting party.
3. A detailed statement of all the legal and factual grounds for the protest and all relevant, supporting documentation (including all written documentation). The grounds for protest must be fully supported.
4. Statement of the form of relief requested from the City.
5. Signature of an authorized representative of the protesting party.

C. DEADLINE TO SUBMIT BID PROTESTS:

Bid protests must be filed within five (5) business days after the deadline for receiving bids.

D. WHERE TO FILE:

All protests are to be directed to the City of Irvine Purchasing Agent. Protests must be submitted in writing via email to: purchasing@cityofirvine.org. A copy of the email must also be sent to the project manager whose email address is set forth in the bid documents. (A document is considered filed on a particular calendar day when it is received via email by the City of Irvine Purchasing Agent by 5:00 p.m., Pacific Standard Time, on that calendar day.) Although not required, in addition to submitting a protest via email, an original protest letter may be sent via United States Postal Service to: Attn: Purchasing Agent, City of Irvine, P.O. Box 19575, Irvine, CA 92623-9575.

E. BID PROTEST REVIEW:

Upon receipt, the Purchasing Agent shall consider the protest and may give notice of the protest and its basis to other persons including bidders involved in or affected by the protest. A protest shall be dismissed for failure to comply with any of the requirements set forth in the "Bid Protest Contents" section above. The Purchasing Agent shall review all material submitted with the protest. No additional material will be accepted for consideration from the protesting party unless specifically requested by the Purchasing Agent. If additional material is requested, it must be submitted by the requested date. The Purchasing Agent shall respond to the protesting party via email within ten (10) business days after receipt of the protest. Final determinations shall be binding, except as otherwise provided below.

F. RECONSIDERATION OF PROTEST DECISION:

A protesting party may request the Purchasing Agent's reconsideration of a decision prior to contract award only if one or both of the following conditions are met:

1. New information becomes available that was not previously known, or could not have been reasonably known, at the time of the original protest; and/or
2. The Purchasing Agent's decision contains an error of law.

Any request for reconsideration of a protest decision must be submitted in writing via email to the Purchasing Agent within three (3) business days from the date of issuance of the initial decision. The request must include a detailed explanation of the basis for

reconsideration as set forth above. The Purchasing Agent shall respond to the request for reconsideration within seven (7) business days from receipt of the request.

G. CONTRACT AWARD:

At its discretion, the City may delay the execution of any proposed agreement pending the resolution of a protest unless one or both of the following conditions are present:

1. The project or service being procured is urgently required; and/or
2. Failure to make prompt award will otherwise cause undue harm to the City.

H. REMEDIES:

There shall be no limitation on remedies selected by the City. Nothing contained herein shall be considered to either act as a limitation on the City's choice of remedies or confer any right upon any interested party to a remedy. In determining the appropriate remedy, the City shall consider all the circumstances surrounding the solicitation, the contract selection, and/or the contract award, including, but not limited to: the seriousness of any deficiency found to exist in the contracting process; the effect of the action of the competitive process; any urgency surrounding the contract requirement; and the effect that implementing the remedy will have on the City's overall ability to accomplish its mission. If the City determines that the award or proposed award was not made in accordance with the applicable City statutes, regulations, policies, and procedures, the City may, in its sole discretion, grant any of the following or any other remedy it deems appropriate: If pre-award, reject all bids and issue a new solicitation, make a new contractor selection or award a contract consistent with applicable statutes, regulations, policies, and procedures; or if post-award, refrain from extending the term of the contract or awarding task orders under an existing task order agreement; or at its sole discretion, take no further action.

1.11 AWARD OR REJECTION OF BIDS AND EXECUTION OF CONTRACT:

- A. The award of the Contract will be as of the date specified in the Notice of Award issued by the City. The award of the Contract shall not constitute a binding obligation on City until the Contract has been lawfully executed by all parties and the Contractor has submitted all required insurance certificates and bonds to the City.
- B. The Contractor shall not commence work in advance of the execution of the Contract, the delivery of the bonds and insurance certificates, as specified above and purchase order issuance.
- C. The award of the Contract, if it is awarded, will be to the responsive and responsible Bidder who submitted the lowest Bid complying with these Proposal Requirements and Conditions and with the Notice Inviting Bids. The lowest bid shall be the lowest bid price on the base contract without consideration of the Additive Bid Items. Such award, if made, will be made within ninety (90) Calendar Days after the opening of the proposals. The ninety (90) Calendar Days period shall be subject to extension for such further period as may be agreed upon in writing between the City and the Bidder(s) concerned. All bids will be compiled on the basis of the estimated quantities of work to be done as shown in SECTION 00 41 00 - BIDDER PROPOSAL. However until an award is made, the City of Irvine reserves the right to reject any and all bids or to waive any informality in bids received, if doing so is deemed to best serve the interest of the City.

1.12 CONTRACT AND BONDS:

- A. The Contract, which the successful Bidder, as Contractor, will be required to execute, is included in the SECTION 00 50 00 – CONSTRUCTION CONTRACT and should be

00 21 13-5

carefully examined by the Bidder.

- B. The successful Bidder, simultaneously with his execution of the Contract will be required to furnish a Payment Bond and a Performance Bond. Said bonds shall be in the form of the two (2) sample bonds included in SECTION 00 50 01 - PERFORMANCE BOND and SECTION 00 50 02 - PAYMENT BOND and based upon conditions specified in Article 1-4 of SECTION 00 72 00 - GENERAL CONDITIONS.
- C. Only bonds issued by companies admitted to do business in the State of California will be accepted, in accordance with Code of Civil Procedure § 995.311 and Insurance Code § 12090. Failure to submit acceptable Payment and Performance Bonds as required shall result in rejection of bid and forfeiture of the proposal guarantee.
- D. All alterations, extensions of time, extra and additional work, and other changes authorized by the Contract Documents will be made without securing the consent of the surety or sureties on the Contract bonds.
- E. The Contract shall be signed by the successful Bidder, and delivered to the City together with the Contract bonds within ten (10) days of the date specified in the Notice of Award issued by the City, not including Saturdays, Sundays and legal holidays. The Contractor shall submit insurance certificates electronically in accordance with Article 6-3 of SECTION 00 72 00 - GENERAL CONDITIONS. The executed Contract, together with the required bonds, will be filed with the Clerk of the City of Irvine.
- F. Failure of the lowest responsive and responsible Bidder to execute the Contract and file acceptable insurance certificates and bonds as provided herein within ten (10) days of award of the Contract, not including Saturdays, Sundays and legal holidays, shall be just cause for the forfeiture of the bid bond. The successful Bidder may file with the City a written notice, signed by the Bidder or his authorized representative, specifying that the Bidder will refuse to execute the Contract if presented to him. The filing of such notice shall have the same force and effect as the failure of the Bidder to execute the Contract and furnish acceptable certificates of insurance and bonds within the time herein before prescribed.

1.13 SPECIAL NOTICE:

Bidders are required to inform themselves fully of the conditions relating to construction and labor under which the Work will be performed, and the Contractor must employ, so far as possible, such methods and means in the carrying out of this work as will not cause any interruption or interference with any other contractor.

1.14 BIDDERS INTERESTED IN MORE THAN ONE BID:

No person, firm or corporation shall be allowed to make or file or be interested in more than one bid as prime contractor for the same work.

1.15 BIDS TO BE LEFT ON DEPOSIT:

No Bidder may withdraw its bid for a period of ninety (90) Calendar Days after the time set for opening thereof. However, the City will return all certified checks within fifteen (15) days, not including Saturdays, Sundays and legal holidays, after the award of the Contract or rejection of the bids, as the case may be, to respective Bidders whose bids are not accepted.

1.16 NON-COLLUSION DECLARATION:

All Bidders shall submit with their bids an executed non-collusion declaration on the form provided in the bidding documents. Failure to provide completed form shall result in the bid being deemed non-responsive.

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities.

The hotline number is 800-424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

1.17 SUBSTITUTIONS:

Where the Specifications or drawings specify any material, product, thing, or service by one or more brand names, whether or not "or equal" is added, and a Bidder wishes to propose the use of another item as being equal, he shall request approval therefor as set forth in SECTION 00 72 00 - GENERAL CONDITIONS.

1.18 REPORTING SUSPECTED IMPROPRIETY, GROSS WASTE, FRAUD AND OTHER ACTS:

Any City and/or Great Park official, employee, and/or contractor who suspects any type of impropriety relating to purchasing or contracting activities, or gross waste, fraud, or abuse of City and/or Great Park funds or resources, a gross abuse of authority, a specified and substantial danger to public health or safety due to any act or omission of any City and/or Great Park official, employee, or contractor, or the use of a City and/or Great Park office or position or of City and/or Great Park resources for personal gain, should report the act by calling the City's Integrity Line at 866-428-1509. All such reports shall remain anonymous if desired by the reporting party. Suspected fraudulent activities include bid rigging, product substitution, theft, overcharging, false certifications and representations, and the like. Any allegations of bribery, kickbacks, gratuities, and conflicts of interest involving City employees should also be reported.

1.19 ASSIGNMENT OF CONTRACT:

No assignment by the Contractor of any Contract to be entered into hereunder or of any part thereof, or of funds to be received thereunder by the Contractor, will be recognized by the City unless such assignment has had the prior written approval of the City and the surety has been given due notice of such assignment in writing.

1.20 OTHER REQUIREMENTS:

- A. Before entering into a Contract, the Bidder to whom the Contract has been awarded shall satisfy all insurance requirements per SECTION 00 72 00 - GENERAL CONDITIONS and such insurance shall be maintained in full force and effect at its own expense during the life of this Contract.
- B. Upon request, the successful Bidder shall furnish to the City a statement of its financial condition and previous construction experience or such other evidence of his qualifications.

1.21 LABOR CODE:

PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM

- A. All contractors and subcontractors who plan to bid on a public works project (the definition of "public works" is found at Labor Code Section 1720, *et seq.*) when the project is for construction, alteration, demolition, installation, or repair work with a value exceeding \$25,000.00 must first be registered and pay an annual fee with the DIR. Additionally, all contractors and subcontractors who plan to bid on public works projects involving maintenance work with a value exceeding \$15,000.00 must first be registered and pay an annual fee with the DIR. The CITY requires all contractors and subcontractors to be registered with the DIR prior to submitting a bid meeting these parameters. By submitting a bid for City of Irvine Public Works project, the contractor acknowledges the above requirements and agrees to maintain a valid Department of Industrial Relations (DIR) Public Works Contractor registration during the term of this project.
 - 1. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid

proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

2. Pursuant to Labor Code Section 1771.4, all bidders are hereby notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- B. **In addition to the requirement** for submittal of certified payroll records **to the City**, contractors and subcontractors shall furnish electronic certified payroll records to the Labor Commissioner (**State of California, Division of Labor Standards Enforcement**).
- C. Contractors and subcontractors shall be responsible for complying and staying current with all DIR requirements and regulations. More information can be found at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>.
- D. Attention is directed to Labor Code § 1735 of which reads as follows:

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in the Government Code §12940, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter.
- E. The Contractor shall abide by the provisions of the California Labor Code § 1770-1781, *et seq.* In accordance with the provisions of the California Labor Code § 1773, the general prevailing rates of per diem wages and holiday and overtime work in the locality in which the work is to be performed has been obtained from the Director of the Department of Industrial Relations, a copy of which is on file in the office of the City Clerk of the City of Irvine and will be made available to any interested party upon request. The Contractor shall post a copy of the prevailing rate of per diem wages at the job site. The Contractor, and any subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of the contract.
- F. Failure to comply with the subject sections will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1775.
- G. In accordance with of the Labor Code § 1773.1, the Contractor must make travel and subsistence payments to each worker employed in the execution of the Contract.
- H. The City will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the City on the Contract.
- I. The Contractor shall familiarize itself with the provisions of the Labor Code § 1777.5 regarding employment of apprentices, and shall be responsible for compliance therewith, including compliance by his subcontractors.
- J. The Contractor and subcontractors shall comply with Labor Code § 1777.6 which stipulates that it shall be unlawful to refuse to accept otherwise qualified employees as registered apprentices solely on the grounds of race, religious creed, color, national origin,

ancestry, sex, or age except as provided in Labor Code § 3077, of such employee.

- K. The Contractor and subcontractors shall comply with Labor Code § 1810 and § 1811 which stipulates that eight hours labor constitutes a legal day's work, and § 1812 which stipulates that the Contractor and subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work performed under the terms of the Contract. Failure to comply with these sections of the Labor Code will subject the Contractor to penalty and forfeiture provisions of the Labor Code § 1813.

1.22 RESERVATION OF RIGHTS:

- A. The City reserves the right to:
1. Disqualify any Bidder in accordance with the instructions herein.
 2. Reject any bids, at its discretion, including bids found to be conditional or incomplete, contain irregularities contain any interlineations or alterations, or found to be not responsive to this Invitation for Bids (IFB).
 3. Investigate the qualifications of any Bidder under consideration.
 4. Require confirmation or clarification of information furnished by the Bidder.
 5. Require additional evidence of Bidder's ability to perform the Work described in these bid documents.
 6. Contact the submitted references to confirm information provided in the bid.
 7. Postpone or cancel the entire IFB or a portion thereof.
 8. Postpone the bid opening or award for its own convenience.
 9. Award a Contract in part or in combination of items.
 10. Issue subsequent IFB.
 11. Seek the assistance of outside technical experts to review the bids.
 12. Disqualify a bid upon evidence of collusion, with intent to defraud, or other illegal practices on the part of the Bidder.
 13. Waive any errors or informalities in any bid to the extent permitted by law.
 14. Require bidder to provide proof as to the equality, substitutability, and compatibility of any items proposed as alternates or equals.
 15. Determine, at the City's sole discretion, the equality, substitutability, and compatibility of any items proposed as alternates or equals.
 16. Exercise any other rights under the City's charter or municipal code.

The City has no obligation to consider any bid unless it is responsive to this IFB and conforming in all respects to the Form of Contract. This IFB does not commit the City to enter into a Contract.

1.23 FEDERAL FUNDS:

This project is funded with federal funds. Contractor should carefully review the Instructions to Bidders and the Federal Requirements of the Special Provisions prior to submitting a bid.

Failure to complete and submit with the bid all the Federal Requirement shall render the bid non-responsive.

END OF SECTION

SECTION 00 25 13 – MANDATORY PRE-BID MEETING

PART 1 GENERAL

- A. Bidder must sign-in and attend a pre-bid meeting to be declared eligible to bid. Bids received from firms who fail to send a representative to sign-in and attend the mandatory pre-bid meeting shall be considered non-responsive and ineligible for contract award.
- B. Bidder shall visit the Project site(s) prior to the bid date in order to determine the conditions normally encountered and generally recognized as inherent in or to the Work; take measurements, perform and/or cause to be performed all quantitative tests; observe and gather all information necessary in order to determine a comprehensive bid amount.
- C. Additional visits to the Project site(s) shall be coordinated through the Project Manager.

1.02 PRE-BID MEETING

- A. A pre-bid meeting will occur in the administrative office as listed below:
 - Facility: Turtle Rock Community Park
 - Street: 1 Sunnyhill
 - City: Irvine, CA 92603
 - Time: XX:00 a.m.
 - Day: Day
 - Date: Month XX, 2018
- B. Bidder failure to attend this pre-bid meeting will result in CITY not accepting the bid.
- C. Sign-in sheets will be provided for issuing any changes to Bidding Documents. Bidders must print their names legibly, sign their names, submit business cards for identification purposes, and comply with all requirements of the sign-in sheets. Bidders will not be allowed to sign-in for more than one (1) company and/or entity.
- D. Bidder is responsible for ensuring that it has complete Bidding Documents, including all Addenda issued by City, prior to the bid due date.

1.03 NO VERBAL CHANGES

- A. Nothing said or discussed before, during, at or after the mandatory pre-bid meeting shall in any way affect bidder's obligation to strictly comply with the Bidding Documents.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION --NOT USED

END OF SECTION

**SECTION 00 41 00 - BIDDER'S PROPOSAL
CONSTRUCTION
OF
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL
CITY HALL
IRVINE, CALIFORNIA

THE UNDERSIGNED, HAVING CAREFULLY EXAMINED ALL OF THE CONTRACT DOCUMENTS; PERMITS ISSUED BY JURISDICTIONAL REGULATORY AGENCIES; CONTRACT; CONTRACT ADDENDA; INSTRUCTIONS TO BIDDERS; PROPOSAL REQUIREMENTS AND CONDITIONS; SPECIFICATIONS; THE PLANS; REFERENCE SPECIFICATIONS; AND ALL OTHER INFORMATION PROVIDED BY THE CITY FOR THE CONSTRUCTION LISTED ABOVE IN AND FOR THE CITY OF IRVINE, IS FAMILIAR WITH THE CONDITIONS, HAVING PERSONALLY VISITED THE SITE OF THE WORK, AND HEREBY PROPOSES TO FURNISH ALL LABOR, MATERIALS AND EQUIPMENT, AND ALL INCIDENTAL WORK NECESSARY TO DELIVER ALL THE IMPROVEMENTS COMPLETE, IN PLACE AND IN STRICT CONFORMITY WITH THE CONTRACT DOCUMENTS.

Bidder's Company Name (please print or type)

Signature of Bidder

Print Name

**CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

SCHEDULE OF WORK

TURTLE ROCK COMMUNITY PARK – COMMUNITY CENTER BUILDING

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	EST. QTY
1	MOBILIZATION – COMMUNITY CENTER	LS	1
2	DEMOLITION – COMMUNITY CENTER	LS	1
3	CONSTRUCTION OF PUBLIC SERVICE COUNTER	LS	1
4	CONSTRUCTION OF INTERIOR STAGE IMPROVEMENTS	LS	1
5	CONSTRUCTION OF EXTERIOR STAGE IMPROVEMENTS	LS	1
6	CONSTRUCTION OF DOOR HARDWARE REPLACEMENTS	LS	1
7	CONSTRUCTION OF RESTROOM IMPROVEMENTS	LS	1

TURTLE ROCK COMMUNITY PARK – NATURE CENTER BUILDING

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	EST. QTY
8	MOBILIZATION – NATURE CENTER	LS	1
9	DEMOLITION – NATURE CENTER	LS	1
10	CONSTRUCTION OF PUBLIC SERVICE COUNTER	LS	1
11	CONSTRUCTION OF DOOR HARDWARE REPLACEMENTS	LS	1
12	CONSTRUCTION OF RESTROOM IMPROVEMENTS	LS	1

NOTE:

The Schedule of Work shown above shall be considered as the complete bidding schedule for all items of work shown or made necessary by the Plans, Specifications or Project Special Provisions. The cost of items of work not shown in the Schedule of Work shall be considered as included in other Bid Items shown in the Schedule of Work and no additional compensation will be allowed.

Bidder's Name: _____

**CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS

In order to access the BidsOnline system and ensure successful online submission of your bid prices, follow these steps:

1. Go to <https://www.planetbids.com/portal/portal.cfm?CompanyID=15927#>
 2. On the Vendor Portal page, log into the system (lower right hand corner of screen) with your assigned user name and password. (You must be registered in order to download documents and submit a bid.)
 3. Click on "Bid Opportunities" and then on the Bid # and Description that you wish to bid on. The selected bid will open to allow you to access all tabs, documents and the pricing sheet.
 4. Click on the "Documents & Attachment" tab to be sure you have downloaded all documents that are part of this bid.
 - *If you have not already downloaded all bid documents, you must download them now, in order to submit your bid. The screen will indicate which documents you've already downloaded.*
 5. Click on the tab "Addenda & Emails" to be sure you have read and acknowledged all addenda that have been issued for this bid.
 - *The screen will display "yes" or "no" next to each addendum to indicate whether you have viewed and acknowledged it. If you have not previously acknowledged an addendum, do so now by clicking on the addendum to open and read it, then click on the "Acknowledge" button on the lower left hand corner of screen.*
 6. To begin entering your bid, click on "Place eBid" on the lower right corner of the screen. The bid "Terms and Conditions" will pop up with a button for you to click "Accept" to acknowledge your agreement to the terms of the bid.
 7. Enter the Respondee information on the "Detail" tab.
 8. Click the "Attach" button on the "Attachments" tab, browse to your scanned Bid Submittal Documents, and upload all Bid Submittal Documents as a single PDF file.
 9. Go to the "Line Items" tab and enter your unit prices on each line. The system will calculate the extended costs and grand total for you.
 10. When you have finished entering all pricing and attachments, click on the "Save"
- Bidder's Name: _____

**CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
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button. This saves your bid as a draft for you to review or revise as needed anytime up to the bid submittal deadline. When you are ready to submit your bid, click the "Submit" button. You will receive a confirming message that looks like this:



Note: E-Bids are sealed and cannot be viewed by the City until the closing date and time. As noted in the screen print above, if you need to withdraw your bid, you may do so any time before the bid deadline, by going back into the system and selecting "withdraw".

Please begin entering your bid in sufficient time to complete and submit it prior to the stated deadline. The official closing time for the bid is determined, and controlled, by the electronic clock in the bid management system. Once the deadline is reached, the system will not allow any bids to be submitted, and any in process that are not completed will be rejected. The amount of time required to enter and submit your bid depends on the complexity of the bid and the processing speed of your server and internet connections.

Technical Support

In the event you encounter technical difficulties during the uploading process, please contact the Planet Bids, BidsOnline system team as shown below (M-F from 8 a.m. to 5 p.m.):

support@planetbids.com or call 818-992-1771, ext. 0

Bid prices must be entered and the bid proposal packet must be uploaded to the BidsOnline system no later than the date and time indicated in the Notice Inviting Bids. No late bids will be accepted. No other method of bid submittal will be accepted.

Bidder's Name: _____

CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441

INFORMATION REQUIRED OF BIDDERS

In determining the lowest "responsible" bidder, consideration will be given to the general competency of the bidder in regard to the work covered by the Bid Proposal. To this end, each proposal shall be supported by a statement of the Bidder's experience on this form. **Failure of the Bidder to provide requested information in a complete, accurate and legible manner shall render the bid non-responsive.** Additionally, the City reserves the right to disqualify or refuse to consider a proposal if a Bidder is determined to be non-responsible in accordance with Irvine Municipal Code § 2-12-103 "Determination of Contractor Non-Responsibility."

The Bidder is required to supply the following information. Use additional sheets as necessary.

- A. Contact person name: _____ Email: _____
Address: _____
Telephone: (____) _____ Fax: (____) _____
- B. Type of firm (Individual, Partnership, or Corporation): _____
- C. State Contractor's License Number and Classification: _____
- D. DIR Registration Number: _____ Expiration Date _____
- E. Number of years your firm has operated as a contractor: _____
- F. Number of years your firm operated under its present business name: _____
- G. List the **names and addresses** of all principals or officers authorized to bind your firm.

Name:	Address:

- H. List any project(s) your firm has **failed to complete** within the last five years due to a termination of contract. For each project, list the type of project, client's name, contact person, current telephone number, email address, and provide a brief description of the grounds for the termination.

Check appropriate box: None ☐ See list below ☐

Type of Project	Client Name	Contact Person	Contact Phone No. and email address
Description:			

Bidder's Name: _____

**CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

Type of Project	Client Name	Contact Person	Contact Phone No. and email address
Description:			

Type of Project	Client Name	Contact Person	Contact Phone No. and email address
Description:			

- I. List projects of similar nature to the TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS your firm is **currently** constructing. For each project, list the type of project, contract amount, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: None ☐ See list below ☐

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address
Description:				

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address
Description:				

Type of Project	Contract Amount	Client Name	Contact Person	Contact Phone No. and email address
Description:				

Bidder's Name: _____

CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441

- J. List projects of a similar nature to the TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS your firm has **completed** within the last five years. For each project, list the type of project, contract amount, date of completion, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: None ☐ See list below ☐

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

Type of Project	Contract Amount	Date of Completion	Client Name	Contact Person	Contact Phone No. and email address
Description:					

- K. List the name of the person(s) (**A MINIMUM OF ONE**) who inspected the site of the proposed work for your firm.

Name:	Date of Inspection:

- L. Complete the following in conformance with Labor Code Section 1725.5

Name of Subcontractor	Registered with DIR?	DIR Registration No.
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	
	Yes ___ No ___	

Bidder's Name: _____

**CITY OF IRVINE
TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
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	Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/>	

- M. If requested by the City, the Bidder shall furnish a notarized financial statement, financial data, or other information and references sufficiently comprehensive to permit an appraisal of its current financial condition or ability to perform the work.

Failure to furnish information upon request will render the bid nonresponsive.

All of the above statements regarding Contractor's experience and financial qualifications are submitted in conjunction with the Bid Proposal, as a part thereof, and the truthfulness and accuracy of the information is guaranteed by the Bidder.

Bidder's Name: _____

THE CITY OF IRVINE RESERVES THE RIGHT TO REJECT ALL BIDS

The undersigned understands the contract time limit allotted for the completion of the work required by the Contract is **Eighty (80) Working Days**.

The undersigned agrees, if awarded the Contract, to sign the Contract and furnish the necessary insurance certificates and bonds within ten (10) days of the date specified in the Notice of Award of Contract, not including Saturdays, Sundays and legal holidays, and to begin work within ten (10) Working Days from the date specified in the City's Notice to Proceed. Contract time accounting shall begin on the date shown in the Notice to Proceed.

Accompanying this Bid Proposal is **(check appropriate box)**:

☐ **Cashier's Check** ☐ **Certified Check** ☐ **Bid Bond**

Sign Here if Individual:

(Signature) _____
(Print Name) _____
(Address) _____

Affix notary's acknowledgement

Sign Here if Co-Partnership:

Co-Partnership Name of Firm: _____
(Address) _____

Members Signing:

(Signature) _____
(Print Name) _____
(Address) _____

(Signature) _____
(Print Name) _____
(Address) _____

Affix notary's acknowledgement

Bidder's Name: _____

Sign Here if Corporation:

(Name of Corporation) _____

(Address) _____

Officers of Corporation Signing:

(Signature) _____

(Print Name) _____

(Title) _____

And

(Signature) _____

(Print Name) _____

(Title) _____

If executed by other than President and Secretary of the Corporation, attach a certified copy of resolution authorizing signature on behalf of the Corporation.

Affix notary's acknowledgement

Bidder's Name: _____

LIST OF SUBCONTRACTORS

The Bidder shall list each subcontractor performing work in an amount in excess of one-half of one percent (1/2%) of the prime contractor's total bid. Complete columns (1) and (2) and submit with the bid. Complete columns (3) and (4) and submit with the bid or hand-deliver to the Receptionist for the Purchasing Agent at the reception desk located on the first floor of the Civic Center building at the City of Irvine, located at One Civic Center Plaza, Irvine, California 92606-5207 within 24 hours after the bid opening. Failure to provide complete information in columns (1) through (4) within the time specified shall render the bid non-responsive.

Subcontractors listed must not be debarred from performing the designated work.

BUSINESS NAME and LOCATION (1)	CONTRACTOR LICENSE NUMBER (2)	BID ITEM NUMBERS (3)	PERCENTAGE OF BID ITEM SUBCONTRACTED AND PORTION OF WORK TO BE PERFORMED BY SUBCONTRACTOR (4)*

Information must be typed or clearly printed.

* If you are subcontracting a whole bid item, insert one hundred percent (100%); if less than one hundred percent (100%), insert actual percentage.

Bidder's Name: _____

**NON-COLLUSION DECLARATION-CONTRACTOR
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
CITY OF IRVINE BID NO. 19-1441**

The undersigned declares:

I am the _____ [title] of _____ [company name], the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Signature

Print Name

Bidder's Name: _____

FORM OF BID BOND

**TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

(10% of the Proposal Amount)

KNOW ALL PERSONS BY THESE PRESENTS that we _____
_____ as Principal, and _____ as Surety, are
held and firmly bound unto City of Irvine, hereinafter called the City in the sum of _____
_____ Dollars (\$_____), for the payment of which sum well and truly
to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally,
firmly by these presents.

The conditions of this obligation are such that whereas the Principal submitted to the City a certain Bid Proposal, attached hereto and hereby made a part hereof, to enter into a contract in writing for the CITY FACILITY IMPROVEMENTS and will furnish all required certificates of insurance and bonds as required by the Contract.

NOW THEREFORE, if said Bid Proposal shall be rejected; or in the alternate, if said Bid Proposal shall be accepted, and the Principal shall execute and deliver a contract in the prescribed Form of Contract, shall deliver certificates evidencing that the required insurance is in effect and shall execute and deliver Performance and Payment Bonds in the forms prescribed, and shall in all other respects perform the Contract created by the acceptance of said Bid Proposal, then this obligation shall be void; otherwise this obligation shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal hereunder shall be the amount of this obligation as herein stated. In the event suit is brought upon this bond by City and judgment is recovered, Surety shall pay all costs incurred by City in said suit, including a reasonable attorney's fee to be fixed by the court.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by an extension of the time within which the City may accept such a Bid Proposal; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this ____ day of _____, 20____, the name of each party being hereto written below and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body. This bond shall be authenticated by way of notarized acknowledgment, including a copy of the power of attorney, for the Surety.

This space intentionally left blank

Bidder's Name: _____

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

Bidder's Name: _____

FALSE CLAIMS

Bidder shall complete the **False Claims Act Certification** below or in the alternative, provide the information requested under **False Claims Act Violations** below. **Failure to certify or provide the requested information shall render the bid non-responsive.**

"False Claims Act" as used herein is defined as either or both the Federal False Claims Act, 31 U.S.C. § 3729, *et seq.*, and the California False Claims Act, Government Code § 12650, *et seq.*

FALSE CLAIMS ACT CERTIFICATION

I _____ hereby certify that neither
(Print name)

(Contractor name)
nor _____
(Name of qualifying person licensed by Contractors State License Board)

has been determined by a court or tribunal of competent jurisdiction to have violated the False Claims Act as defined above.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____
(Signature of owner, officer, manager or licensee responsible for submission of Bid Proposal)

FALSE CLAIMS ACT VIOLATIONS

With regard to any determinations by a tribunal or court of competent jurisdiction that the False Claims Act, as defined above, has been violated by (1) the Contractor submitting this Bid Proposal or (2) the qualifying person licensed by the State Contractors License Board to perform the work described in this Bid Proposal, shall provide on a separate sheet the following information: (1) the date of the determination of the violation, (2) the identity of the tribunal or court, (3) the identity of the government contract or project involved, (4) the identity of the government department involved, (5) the amount of fine imposed, and (6) any exculpatory information of which the City should be aware.

Bidder's Name: _____

CIVIL LITIGATION AND ARBITRATION HISTORY

Bidder shall provide the certification or information requested below. Failure to certify or provide such certification or information shall render the bid non-responsive.

For five (5) years preceding the submittal date of this Bid Proposal, identify civil litigation and arbitration arising out of the performance of a construction contract within the State of California in which the (1) Contractor submitting this bid proposal or (2) the qualifying person licensed by the State Contractors Licensing Board to perform the work described in this Bid Proposal was a named as a party in a lawsuit brought by or against the project owner or any action to confirm, vacate or modify an arbitration award involving an owner.

CIVIL LITIGATION AND ARBITRATION CERTIFICATION

If the Bidder has no civil litigation and arbitration history to report as described above, complete the following:

I _____ certify that neither
(Print name)

(Contractor name)
nor _____
(Name of qualifying person licensed by Contractors State License Board)

has been involved in civil litigation and arbitration as described above.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____
(Signature of owner, officer, manager or licensee responsible for submission of Bid Proposal)

Do not include litigation and arbitration which are limited solely to enforcement of mechanics' liens or stop notices. Provide on a separate sheet (1) the name and court case identification number of each case, (2) the jurisdiction in which it was filed, and (3) the outcome of the litigation, e.g. whether the case is pending, a judgment was entered, a settlement was reached, or the case was dismissed.

Bidder's Name: _____

CRIMINAL CONVICTIONS

Bidder shall provide the certification or information requested below. Failure to certify or provide such certification or information shall render the bid non-responsive.

CRIMINAL CONVICTION CERTIFICATION

If the Bidder has no criminal convictions to report as described above, complete the following:

I _____ hereby certify that neither
(Print name)

(Contractor name)

nor _____
(Name of qualifying person licensed by Contractors State License Board)

has been convicted of a criminal violation as described above.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this _____ day of _____ at _____
(Month and year) (City and State)

By _____
(Signature of owner, officer, manager or licensee responsible for submission of Bid Proposal)

For the five (5) years preceding the date of this Bid Proposal is due, identify on a separate sheet any criminal conviction in any jurisdiction in the United States for a violation of law arising out of the performance of a construction contract (1) by the Contractor submitting this Bid Proposal or (2) by the qualifying person licensed by the State Contractors License Board to perform the work described in the Bid Proposal.

Provide on the following page labeled "Criminal Convictions Information." (1) the date of conviction, (2) the name and court case identification number, (3) the identity of the law violated, (4) the identity of the prosecuting City, (5) the contract or project involved, (6) the punishment imposed, and (7) any exculpatory information of which the City should be aware.

Bidder's Name: _____

VIOLATION OF LAW OR A SAFETY REGULATION

Has the Bidder, any officer of the Bidder, or any employee who has proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of a law or a safety regulation?

☐ Yes ☐ No

If the answer is yes, explain the circumstances in the following space.

Name of bidder (print)

Signature

Address

State Contractors' License No. & Classification

City

Zip Code

Telephone

END OF SECTION

Bidder's Name: _____

**SECTION 00 50 00 - CONSTRUCTION CONTRACT
FOR CAPITAL IMPROVEMENTS**

CITY OF IRVINE

**TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

This Contract made and entered into this ____ day of _____, 2018, by and between City of Irvine, a municipal corporation of the State of California, hereinafter referred to as "CITY" and _____, hereinafter referred to as "CONTRACTOR."

W I T N E S S E T H:

That the CITY and the CONTRACTOR, for the consideration hereinafter named, mutually agree as follows:

- A. The complete Contract includes all of the Contract Documents, which are incorporated herein by this reference, to wit:
1. Permits and Agreements
 2. Contract
 3. Addenda
 4. Instructions to Bidders, Proposal Requirements and Conditions
 5. Contract Specifications
 6. Contract Plans
 7. Reference Specifications,

The Contract Documents are complementary, and that which is required by one shall be as binding as if required by all.

- B. CONTRACTOR shall provide and furnish all labor, materials, necessary tools, expendable equipment, and all utility and transportation services required for the following work of improvement:

Various improvements to the Turtle Rock Community Center and Nature Center located at 1 Sunnyhill, Irvine, CA. The project includes upgrades to the public service counters, installation of new chair lifts and handrails, replacement of door hardware, and reconstruction of the restrooms to comply with the requirements of the Americans with Disabilities Act (ADA) and other items not mentioned here, but are required by the plans and Special Provisions.

- C. CONTRACTOR agrees to perform all the said work and furnish all the said materials at his own cost and expense that are necessary to construct and complete in strict conformance with Contract Documents and to the satisfaction of the Engineer, the work hereinafter set forth in accordance with the Contract therefore adopted by the City Council and as prepared by RM Architecture.
- D. CITY agrees to pay and CONTRACTOR agrees to accept in full payment for performance of this work of improvement as described, the stipulated sum of _____ (\$ _____) the "Contract Price."

CITY agrees to make progress payments and final payment in accordance with the method set forth in the Special Provisions.

- E. CONTRACTOR agrees to commence construction of the work provided for herein within ten (10) Calendar Days after the date specified in the Notice to Proceed, and to continue diligently in strict conformance with Contract Documents and without interruption, and to complete the construction thereof within **Eighty (80) Working Days** after the date specified in the Notice to Proceed.
- F. Time is of the essence of this Contract, and it is agreed that it would be impracticable or extremely difficult to ascertain the extent of actual loss or damage which the CITY will sustain by reason of any delay in the performance of this Contract. It is, therefore, agreed that CONTRACTOR will pay as liquidated damages to the CITY the following sum: **One Thousand Dollars (\$1,000)** per Calendar Day, for each and every Calendar Days delay in finishing the Work in excess of the number of Working Days prescribed above. If liquidated damages are not paid, as assessed by the CITY, the CITY may deduct the amount thereof from any money due or that may become due the CONTRACTOR under this Contract in addition to any other remedy available to CITY. By executing this Contract, Contractor agrees that the amount of liquidated damages is reasonable and shall not constitute a penalty.
- G. In accordance with State of California Senate Bill No. 854, CONTRACTOR will maintain and will require all subcontractors to maintain valid and current Department of Industrial Relations (DIR) Public Works Contractor registration during the term of this project. CONTRACTOR shall notify the CITY in writing immediately, and in no case more than twenty-four (24) hours, after receiving any information that CONTRACTOR'S or any of its SUBCONTRACTOR'S DIR registration status has been suspended, revoked, expired, or otherwise changed.
- H. CONTRACTOR will pay, and will require all subcontractors to pay, all employees on said Contract a salary or wage at least equal to the prevailing salary or wage established for such work as set forth in the wage determinations and wage standards applicable to this work, a copy of which is on file in the office of the City Clerk of the City of Irvine. Federal prevailing wage rates apply for federally funded projects. Travel and subsistence pay shall be paid in accordance with Labor Code § 1773.1.
- I. CONTRACTOR shall be subject to the penalties in accordance with Labor Code of § 1775 for each worker paid (either by him or by any subcontractors under him) less than the prevailing rate described above on the work provided for in this Contract.
- J. CONTRACTOR and subcontractors shall comply with Labor Code § 1810 and § 1811 which stipulates that eight hours labor constitutes a legal day's work, and § 1812 which stipulates that the CONTRACTOR and subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work performed under the terms of the Contract. Failure to comply with these sections of the Labor Code will subject the CONTRACTOR to penalty and forfeiture provisions of the Labor Code § 1813.
- K. CONTRACTOR will comply with the provisions of Labor Code § 1777.5 pertaining to the employment of apprentices to the extent applicable to this Contract.
- L. CONTRACTOR, by executing this Contract, hereby certifies:

"I am aware of, and will comply with the Labor Code § 3700 by securing payment for, and maintaining in full force and effect for the duration of the contract, complete Workers' Compensation Insurance, and shall furnish a Certificate of Insurance to the City before execution of the Contract. The

CITY, its officers, or employees, will not be responsible for any claims in law or equity occasioned by failure of the CONTRACTOR to comply with this paragraph.”

CONTRACTOR further agrees to require all subcontractors to carry Workers’ Compensation Insurance as required by the Labor Code of the State of California.

- M. CONTRACTOR shall, concurrent with the execution of this Contract, furnish two bonds approved by the CITY, one in the amount of One Hundred Percent (100%) of the Contract Price, to guarantee the faithful performance of the work “Performance Bond”, and one in the amount of One Hundred Percent (100%) of the Contract Price to guarantee payment of all claims for labor and materials furnished “Payment Bond.” This Contract shall not become effective until such bonds are supplied to and approved by the CITY.
- N. CONTRACTOR shall, prior to commencing work, furnish certificates evidencing compliance with all requirements of the Contract Documents pertaining to insurance.
- O. Any amendments to any of the Contract Documents must be in writing executed by the CONTRACTOR and the CITY. Any time an approval, time extension, or consent of the CITY is required under the Contract Documents, such approval, extension, or consent must be in writing in order to be effective.
- P. This Contract contains all of the agreements and understandings of the parties and all previous understandings, negotiations, and contracts are integrated into and superseded by this Contract.
- Q. In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Contract shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Contract which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder.
- R. The persons executing this Contract on behalf of the parties hereto warrant that they are duly authorized to execute this Contract on behalf of said parties and that, by so executing this Contract, the parties hereto are formally bound to the provisions of this Contract.
- S. This Contract shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns.
- T. In performing its obligations and duties under this Contract, each party shall comply with all applicable local, state, and federal laws, regulations, rules, standards and ordinances.
- U. In the event any action is brought between the parties hereto relating to this Contract or the breach thereof, the prevailing party in such action shall be entitled to recover from the other party reasonable expenses, attorneys’ fees and costs in connection with such action or proceeding.
- V. This Contract may be executed by the parties in counterparts, which counterparts shall be construed together and have the same effect as if all of the parties had executed the same instrument.
- W. This Contract is to be governed by the laws of the State of California.

IN WITNESS WHEREOF, the said CONTRACTOR and the Director of Public Works, City Manager Mayor and City Clerk of the CITY have caused the names of said parties to be affixed hereto, the day and year first above written.

CONTRACTOR'S NAME:

Print Name of Construction Company

(If Corporation, 2 signatures are required)

By: _____
Signature

Print Name

Its: _____
Title

By: _____
Signature

Print Name

Its: _____
Title

CONTRACTOR INFORMATION:
Address for Notices and Payments

Telephone Number: _____

Email: _____

CITY OF IRVINE
A Municipal Corporation

City Manager of the City of Irvine

Manuel Gomez
Director of Public Works

ATTEST:

Molly McLaughlin
City Clerk

APPROVED AS TO FORM:
RUTAN & TUCKER, LLP

Jeffrey Melching

END OF SECTION

SECTION 00 50 01 - PERFORMANCE BOND

**TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

KNOW ALL PERSONS BY THESE PRESENTS that we _____, as Principal, and _____ as Surety, are held and firmly bound unto City of Irvine, hereinafter called the City in the sum of _____ (\$_____) (this amount being not less than one hundred percent (100%) of the total bid price of the contract awarded by the owner to the Principal), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract attached hereto, with the City of Irvine.

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original terms thereof, and any extensions thereof that may be granted by the Owner with or without notice of the Surety, and during the life of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, then this obligation shall be void otherwise this obligation shall remain in full force and effect.

Further, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modifications of the Contract Documents and/or of the Work to be performed thereunder shall in any way affect its obligations on this bond; and it hereby waives notice of any and all such changes, extensions of time, and alterations or modifications of the contract documents and/or of the work to be performed thereunder.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by the City in successfully enforcing such obligation, and all to be taxed as costs and included in any judgment rendered by a court of law.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this ____ day of _____, 20____, the name of each party being hereto written below and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body. This bond shall be authenticated by way of notarized acknowledgment, including a copy of the power of attorney, for the Surety.

This area is intentionally left blank.

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

END OF SECTION

SECTION 00 50 02 - PAYMENT BOND

**TURTLE ROCK COMMUNITY PARK ACCESSIBILITY IMPROVEMENTS
CIP 361705 AND 361813
BID NO. 19-1441**

KNOW ALL PERSONS BY THESE PRESENTS that we _____, as Principal, and _____ as Surety, are held and firmly bound unto City of Irvine, hereinafter called the City in the sum of _____ (\$ _____) (this amount being not less than one hundred percent (100%) of the total bid price of the contract awarded by the owner to the Principal), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract, attached hereto, with the City of Irvine.

NOW THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of each contract that may hereafter be made, then this obligation shall be void, otherwise this obligation shall remain in full force and effect.

The condition of this obligation is such that, if said Principal or his subcontractors, or heirs, executors, administrators, successors, or assigns thereof, shall fail to pay any of the persons named in the Civil Code § 9100 for any material used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or shall fail to pay any amount due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant or any amount required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his subcontractors with respect to such work and labor, then said Surety will pay and, also, in case suit is brought upon the bond, will pay a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of all persons named in the aforesaid Civil Code § 9100 to give a right of action to them or their assigns in any suit brought upon the bond.

Further, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modification of the Contract Documents or of the Work to be performed thereunder shall in any way affect its obligations on this bond; and it hereby waives notice of any and all such changes, extensions of time, and alterations or modifications of the Contract Documents and/or of the work to be performed thereunder.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument this ____ day of _____, 20____, the name of each party being hereto written below and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body. This bond shall be authenticated by way of notarized acknowledgment, including a copy of the power of attorney, for the Surety.

This area is intentionally left blank.

ATTEST:

(Principal) _____

(Address) _____

(By) _____

(Title) _____

ATTEST:

(Surety) _____

(Address) _____

(By) _____

(Title) _____

END OF SECTION

SECTION 00 71 00 – DEFINITIONS

The terms used in the General Conditions and within the Contract Documents have the following meanings assigned to them applicable in both the singular and plural tense. Certain terms are fully capitalized for no other reason than ease of reading.

Addenda - Additional written or graphical instructions issued prior to the opening of bids, which clarify, modify, correct, amend, add, delete and/or otherwise change the Contract Documents.

Administrative Closeout - Administrative Closeout shall be the duration allowed for completion of all Contract requirements after Substantial Completion such as Punch List items, submittal of final warranties and guaranties, and record documents.

Applicable Laws- All federal, state, and local statutes, law, ordinance, provision, rule, regulation pertaining to the furnishing of or performance of the Work.

Application for Payment - The City approved invoice form along with other supportive documentation as specified in the Contract Documents to be certified and submitted by Contractor in requesting progress and/or final payment.

"As Builts" - Plans and specifications received from Contractor following Substantial Completion that document field changes, additions or deletions to the Work (as defined in the original Contract Documents) that occurred during construction and reflect existing field conditions upon completion of the Work.

Calendar Day – The 24-hour day denoted on the calendar.

Calendar Month – The period including the first through the last day of a month.

Change Order - A written instrument confirming a change or adjustment to the Contract Amount, Milestones and/or Contract Time and/or an addition, deletion or revision in the Work. A Change Order is only effective upon approval by the City.

Change Order Proposal (COP) - A written instrument prepared and issued by Contractor, setting forth proposed adjustments to the Contract Amount, Milestones or Contract Time, if any, in response to a Request for Quotation and/or proposed addition, deletion or revision of the Work.

City – The City of Irvine, a municipal corporation.

City Representative - The person or engineering/architectural firm Agency authorizes to represent it during the performance of the Work by the Contractor and until Final Acceptance. The Agency Representative means the Agency Representative or his assistants.

Contract Completion- When City determines all Contract requirements of Contractor have been met or when the Administrative Closeout Period has expired and a Notice of Contract Completion is issued by City to Contractor.

Contract Amount – The dollar amount stated in the Contract payable by City to Contractor. The Contract Amount may be increased or decreased only by Change Order.

Contract Time - The duration in Working Days from the date in the Notice to Proceed to the Contract Completion, plus or minus Change Order adjustments.

Contractor - The person, firm, corporation or entity with whom the City has entered into the Contract.

Defective - When preceding the term work, it references Work deemed to be unacceptable, faulty, unsuitable, unsightly or otherwise not in compliance with the Contract Documents including any inspection, standard, test, submittal, and/or approvals required by the Contract Documents.

Engineer – The City Engineer acting either directly or through the Agency Representative.

Major Bid Item – A single Contract item constituting ten percent (10%) or more of the original Contract Price.

Plans- Pictorial or graphical portions of the Contract Documents, prepared by or on behalf of the Engineer, denoting the scope, design, extent, location, character, and dimensions of the Work to be performed and may include plans, elevations, sections, details, schedules and diagrams, etc., however, Shop Drawings are not Drawings as so defined herein.

Milestones- Designated events as set forth in the Construction Schedule in which Work or portions thereof are required to be started and/or completed. Supplementary Conditions may provide for the assessment of Liquidated Damages if Contractor fails to achieve one or more Milestones.

Notice of Award- Notice by City advising the successful bidder that the City has issued the Contract.

Notice of Completion - Notice by City recorded with the County Recorder upon Substantial Completion.

Notice to Proceed - The written notice issued by City to Contractor establishing the date of commencement of the Contract Time and authorizing Contractor to proceed with the Work.

Partial Use or Occupancy - Use or occupancy by City of a partially completed portion, part, space or area of the Work, prior to Substantial Completion of the Work.

Product Data - Contractor furnished literature, illustrations, standard schedules, performance charts, instructions, brochures, diagrams, catalog cuts, color charts, templates, installation and maintenance instructions, test data, agency or regulatory approvals, or other required product information furnished by Contractor relative to the Work.

Punch List - A list of minor, corrective items, which does not include uncompleted Work.

Request for Information (RFI) - A written instrument prepared by Contractor and issued to Engineer requesting information or clarification of the Contract Documents.

Request for Quotation – Contemplated revision of Contract Documents by the Agency requesting detailed information from the Contractor on impacts to contract sum or contract time.

Samples - Contractor furnished physical specimens such as swatches, natural materials, materials, fabricated items, equipment, devices, appliances, cuts, containers, color boards, textures, fabrications, finishes, or other required samples furnished by Contractor relative to the Work.

Shop Drawings - Contractor furnished original drawings such as illustrations, diagrams, schedules, fabrications, erection, coordination, layout, setting, details, standards, performance charts or curves, installation, routing, iso-metric, wiring, control, piping, or other required shop drawings furnished by Contractor relative to the Work.

Specifications - Those portions of the Contract Documents consisting of the written technical and/or administrative descriptions of materials, equipment, systems, codes, regulations, procedures, standards, workmanship, services, facilities, supplies, instructions, transportation, quality, etc., as applied to the Work.

Subcontractor - The person, firm, corporation or entity executing a direct contract with Contractor or with any subcontractor for the performance of a portion of the Work.

Substantial Completion - The stage in the progress of the Work when all of the requirements of the Contract are completed, except Punch List items, final warranties and guaranties, and record documents submittals.

Subsurface Facility - All underground or below grade facilities and/or improvements, including but not limited to, any and/or all encasements such as pipelines, wells, conduits, raceways, duct banks, ducts, cables, conductors, sensors, manholes, valve boxes, metering devices or other such facilities which collect, furnish, supply, distribute, and/or transport to this or any other site or property electricity, telephone, data, steam, gases, petroleum, cable or satellite signals, sewage, signal systems, water, storm drainage, traffic signals, or other control systems.

Work- All of the terms and conditions set forth in the Contract Documents, including the various separately identifiable parts thereof to be furnished thereunder. The Work shall include, without limitation, all labor, materials, apparatus, supplies, services, facilities, utilities, transportation, manuals, warranties, training, and the like, necessary for Contractor to faithfully perform and complete all of its obligations under the Contract.

END OF SECTION

SECTION 00 72 00 - GENERAL CONDITIONS

ARTICLE 1 – SCOPE AND CONTROL OF WORK

1-1 CONTRACT AWARD AND EXECUTION - The City will award and execute the Contract as provided in the Specifications, Instructions to Bidders or Notice Inviting Bids.

1-2 ASSIGNMENT - Do not assign the Contract or any portion of it without the City's written consent, except that you may assign money due or which will accrue to you under the Contract. If given written notice, the City will recognize the assignment to the extent permitted by law. Any assignment of money is subject to all proper withholdings in the City's favor and to all deductions, the Contract allows. The City will use all money withheld, assigned or not, to complete the Work if you default.

Do not assign Contract performance except with the City's written consent. The City will not consent to any proposed assignment that would relieve you or your Surety of your Contractual responsibilities, or to any assignment of any of the Contract Work.

1-3 SUBCONTRACTS.

1-3.1 General. Comply with Chapter 4 of the Public Contract Code including Sections 4100 through 4113.

- A. The name and location of the place of business of each subcontractor who will perform work or labor or provide service to you in constructing the Work or improvement, or a subcontractor licensed by the State of California who, under subcontract to you, specially fabricates and installs a portion of the Work or improvement according to detailed drawings in the Plans and Specifications, in an amount exceeding one-half of 1 percent of your total bid.
- B. The portion of the Work each such subcontractor will do under this act. List only one subcontractor for each portion as defined in your bid.

If you fail to specify a subcontractor or specify more than one subcontractor for the same portion of the Contract Work to be performed in excess of one-half of 1 percent of your total Bid, you must be qualified to and must perform that portion yourself unless the Code provides otherwise.

Pursuant to § 4107, if your Bid is accepted you may not substitute any person as a subcontractor in place of a subcontractor listed in your Bid except for the causes and by the procedures in § 4107.5, which provide procedures to correct a clerical error in listing a subcontractor.

Section 4110 provides that violating any of the provisions of Chapter 4 violates the Contract and the City may, after a public hearing, either cancel the Contract or assess you a penalty not exceeding 10 percent of the subcontract involved.

If you subcontract any part of Contract, you are as fully responsible to the City for the acts and omissions of your subcontractors as you are for the acts and omissions of your direct employees. Nothing contained in the Contract Documents creates any contractual relationship between any subcontractor and the City. Bind every subcontractor to the terms of the Contract Documents applicable to its work.

Do not employ debarred contractors on the Work pursuant to the provisions of Labor Code § 1777.1 and City of Irvine Council Ordinance No. 08-10. The Labor Commissioner publishes and distributes a

list of contractors ineligible to work as a subcontractor on a public works project. This list is available from the Department of Industrial Relations web site <http://www.dir.ca.gov/dlse/debar.html>.

The U.S. General Services Administration maintains a list of individuals, firms and organizations debarred, suspended or who have voluntarily excluded themselves from Federal Procurement and Non-Procurement Programs, which is available from the website <http://www.sam.gov>.

According to SB 854, you and each of your subcontractors must maintain a valid, current Department of Industrial Relations Public Works Contractor registration during the term of this project.

Before including a subcontractor's name on the bid, verify that each one is properly licensed and not debarred from performing the designated work.

The City will withhold payment for noncompliant subcontracted work from progress payments due, or to become due, until the noncompliance is corrected. The City may terminate the Contract if you fail to comply.

If the Engineer finds any subcontractor or person you employ is incompetent or is acting improperly, then at the Engineer's request, dismiss them from the job immediately and do not employ them on the Work again.

File a copy of each subcontract with the City before the subcontractor begins work. Each subcontract must reference the Contract with the City and its terms and all its parts are made part of that subcontract as applicable to the work it covers. Each subcontract must allow you to annul it at the City's order if in the City's opinion the subcontractor fails to comply with Contract requirements.

1-3.2 Self Performance. Perform, with your own employees, Contract work amounting to at least 30 percent of the Contract Price. When an entire item is subcontracted, base the value of work subcontracted on the Contract Unit Price. When a portion of an item is subcontracted, calculate the value of the subcontracted portion using the estimated percentage of the Contract Unit Price based on information you submit, subject to the Engineer's approval.

Give personal attention to fulfilling the Contract and keep the Work under your control. Subcontractors are your employees and you are responsible for their work.

1-3.3 Status of Subcontractors. The City will not conduct business with an individual, firm or organization, and you shall not employ or otherwise use at any tier, any subcontractor, supplier, or equipment vendor on the City's debarment list, the Department of Industrial Relations debarment list, or the U.S. General Services Administration "List of Parties Excluded from Federal Procurement and Non Procurement Programs."

1-4 CONTRACT BONDS. Before executing the Contract, file surety bonds with the City for its approval in the amounts and for the purposes noted below. Bonds issued by a surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in that circular is sufficient to provide bonds in the amount required by the Contract, is approved unless the City specifically rejects them. Attach all of the documents listed in the Code of Civil Procedure, § 995.660 a) to bonds from all other sureties and pay all bond premiums, costs and incidentals.

You and the Surety sign each bond and incorporate the Contract by reference. Notarize the Surety's authorized agent's signature.

Provide two sufficient surety bonds. The "Payment Bond" must be for 100 percent of the Contract Price to satisfy claims of material suppliers, and mechanics and laborers you employ on the Work. Maintain the bond in full force until the City accepts the Work and all claims for materials and labor are paid, and otherwise comply with the Civil Code.

The "Performance Bond" must be for 100 percent of the Contract Price to guaranty faithful performance of all work within the time prescribed and in a manner satisfactory to the City, and that all materials and workmanship are free from original or developed defects. The bond must remain in effect until the end of all warranty periods in the Contract Documents.

Should any bond become insufficient, renew the bond within 10 days after notice from the City.

If at any time the City finds any surety unsatisfactory, it will notify you and no additional payments will be due or made under the Contract until a new surety qualifies and the City accepts it.

Changes in the Work or extensions of time made pursuant to the Contract do not release you or the surety from your and its obligations and the Surety must waive notice of these changes or extensions.

1-5 THE CONTRACT DOCUMENTS.

1-5.1 General. Keep at the Work site a copy of the Plans and Specifications for the Engineer to access at all times. Supplement the Plans with those working drawings and shop drawings necessary to adequately control the Work.

If, either before beginning or during the work, you find any discrepancy between the Specifications and the Plans or between either of them and the physical conditions at the Work site or find any error or omission in any of the Plans or in any survey, promptly notify the City of the discrepancy, error or omission. Promptly notify the City in writing if you observe any plans or specifications at variance with any applicable law, ordinance, regulation, order or decree.

The City, on receiving the notice, will investigate the circumstances and give you appropriate instructions. Until then, any work you do after discovering an error, discrepancy or conflict directly or indirectly affected by the error, discrepancy or conflict, is at your risk and you bear all costs arising from it.

The City will provide, free of charge, three (3) copies of Plans and Specifications for you and one (1) copy of Plans and Specifications for each subcontractor listed in your Proposal. The City can provide additional copies of the Plans or Specifications at your expense. Keep one set of Plans and Specifications in good order and available to the City Representative at the Work site.

Titled sections of the Contract Documents, including, without limitation, the Specifications, are for convenience only and do not dictate the trade or craft involved.

Where "as shown," "as indicated," "as detailed," or words of similar meaning are used, they refer to the Drawings accompanying the Specifications unless stated otherwise. Where "provide," "furnish," "install," "complete," or words of similar meaning are used, they mean to put in place for the intended use or operation. Where "as directed," "as required," "as permitted," "as authorized," "as accepted," "as selected," or words of similar meaning are used, the Engineer's direction, requirement, permission, authorization, approval, acceptance or selection is intended unless stated otherwise.

Division 00 Procurement and Contracting Requirements, and Division 01 General Requirements, are a part of every section of the Contract Documents.

The Contract Documents are written in an abbreviated form, and may not include complete sentences. Omission of words or phrases like "Contractor shall," "shall be," etc., are intentional. Nevertheless, the requirements of the Contract Documents are mandatory. Omitted words or phrases are supplied by inference.

Words in the singular include the plural whenever applicable or the context indicates or requires.

In the interest of brevity, the Contract Documents frequently omit modifying words like "all" and "any" and articles like "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another does not affect the interpretation of either statement.

1-5.2 Contract Documents are Complementary and Inclusive. The Plans, Specifications and other Contract Documents govern the Work. The Contract Documents are complementary and cooperative. Anything in the Specifications not shown on the Plans or shown on the Plans and not in the Specifications are as though shown on or in both.

1-5.3 Conformance with Laws. As applicable, unless modified elsewhere in the Specifications, Contract Work must conform to the current editions of: Uniform Building, Plumbing, Mechanical Codes, Uniform Fire Code, National Electrical Code and City of Irvine Amendments to the aforementioned codes.

Perform all work according to the current editions and City of Irvine Amendments to, the California Building Code, the California Electrical Code, the California Plumbing Code with key amendments, California Green Building Standards Code, Building Energy Efficiency Standards, California Playground Safety Regulations, City of Irvine Codes & Ordinances, City of Irvine's Grading Manual, City of Irvine's Standards and Design Manual, City of Irvine's Park/Public Facility Standards, City of Irvine's Construction Site Security Requirements, Americans with Disabilities Act (ADA), Chapter 11B Title 24 of the California Code of Regulations, California Public Contract Laws, the Specifications, Attachments, and Construction Plans and all their applicable requirements.

Check and review the Contract Documents from a construction standpoint for conformity and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public utilities affecting the construction and operation of the physical portion of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical portion of the project and other special requirements, if any, designated in the Contract Documents. If you see any violation of any law, ordinance, code, rule or regulation or inconsistency with any restrictions or special requirements in the Contract Documents, give notice to the Engineer and correct the violation or inconsistency in the prescribed manner before beginning that portion of the Work. Unless specifically

stated otherwise in the Contract Documents, Contract Document provisions take precedence in resolving any violation and inconsistency between provisions of the Contract Documents and provisions of any laws, ordinances, codes, rules and regulations applicable to the Work unless applying the provisions of the Contract Documents would directly violate those laws, ordinances, codes, rules and regulations. If the requirements of this article or the Engineer's written interpretation or clarifications do not resolve the violation or inconsistency, the Engineer's decisions and directives regarding the Work are final.

1-5.4 Intent of Plans and Specifications. The Plans and Specifications describe the Work. The Specifications describe Work not indicated on the Plans like quality of materials, workmanship and execution; the Plans generally describe Work dimensions, elevations and general layout. The Specifications do not specify every item of Work shown on the Plans nor do the Plans show all Work described or specified in the Specifications even if the items could have been included. Provide all aspects of the Work on the Plans or in the Specifications or that are reasonably inferable from them necessary to complete the Work, whether or not the aspects of the Work are expressly covered in the Plans or the Specifications. You are responsible for insuring the Work is sound, quality construction and for including all direct and indirect costs and expenses to cover all items indicated, described or implied in the Work.

1-5.5 Ambiguity, Conflicts, Difference or Discrepancy. In the event of an ambiguity, conflict, difference or discrepancy between the various Contract Documents, the more stringent, higher quality, greater quantity and higher-level work controls. If discrepancies in the Contract Documents are not corrected by Addenda during the bid period, you warrant that the scope and amount of your bid includes all materials, supplies, equipment, services, facilities, apparatus and methods of construction to provide the higher cost, quantity and quality.

1-5.6 Priority of Addenda. Addenda take precedence over all other Contract Documents at the time of bid. Subsequent Addenda issued govern over prior Addenda only to the extent specified, where applicable and according to Title 24, California Code of Regulations.

1-5.7 Standard Technical Specifications of Societies, Institutions, Associations, etc. Any reference to standard technical specifications of any society, institute, association or governmental authority refers to that organization's standard technical specifications in effect on the date you submit your bid for the Work. If applicable standard technical specifications are revised before completing any part of the Work, you may, if acceptable to the Engineer, perform that Work according to the revised standard technical specifications. The standard technical specifications, except as modified in the Contract Documents, are as though printed in the Contract Documents. Before beginning any portion of the Work, check and review the Contract Documents from a construction standpoint for conformance and compliance with the provisions of all standard technical specifications, listed or otherwise. If you note a conflict, ambiguity or discrepancy between the provisions of the Contract Documents and standard technical specifications, notify the Engineer and ensure the conflict, ambiguity or discrepancy is corrected as prescribed before beginning that portion of the Work. Unless stated otherwise in the Contract Documents, provisions of the Contract Documents take precedence in resolving any conflict, ambiguity or discrepancy between the provisions of the Contract Documents and standard technical specifications. If the requirements of this article or the written interpretation or the Engineer's clarifications do not resolve the conflict, ambiguity or discrepancy, the Engineer's decisions and directives are final for proceeding with the Work. If you believe an Engineer's order establishes a basis for an adjustment in the Contract Amount, Milestones and Contract Time, then pursuant to Article 2, submit a Change Order Proposal within ten (10) days after the Construction Directive is issued.

1-5.8 Rules of Contract Interpretation. Provide the more stringent, higher quality material and work and greater quantities for the Work in the case of a conflict between the various sections of the Contract Documents, including the Plans and Specifications.

Where applicable, City-approved requirements on any item submitted as a Deferred Approval according to Title 24, California Code of Regulations, take precedence over any previously issued Addenda, Plan or Specification.

Except as provided in this section, in a conflict between the Plans, the following govern:

- A. Specific notes govern over all other notes;
- B. General notes, when identified as such, are incorporated in other portions of the Plans;
- C. Schedules, when identified as such, are complementary with other notes and other portions of the Plans including those identified as general notes;
- D. Larger scale Drawings govern over smaller scale Drawings;
- E. Calculated, derived or numerical dimensions govern over scaled dimensions; do not perform or allow Work to be performed based on dimensions obtained by scaling the Drawings.

1-5.9 Ownership and Use of the Contract Documents. Neither you, your Subcontractors, nor your material or equipment suppliers, own or claim a copyright in the Plans, Specifications and other Contract Documents or use them on other jobs.

1-5.10 Document Retention Policy. Maintain at your sole expense for a period of ten (10) years after the Notice of Completion is recorded, a full set of project records including plans, specifications, correspondences, submittals, record documents and all other project documentation in hard copy or electronic form. If the City or its designated agent or representative makes a written request for the documents, produce or make them available for review and photocopying or electronic reproduction within ten (10) days of receiving the City's written request.

1-5.11 Request For Information (RFI) Procedures. This Section contains procedures Contractor shall follow when discovering any apparent conflicts, omissions, or errors in Contract Documents or when having any question about interpretation.

A. PROCEDURES

- 1. Submit requests for clarification or additional information in writing to Engineer using Request for Information (RFI) form provided by Engineer or a similar, Engineer-approved form.
- 2. Number RFIs sequentially. Add a sequential alphabetical suffix after the RFI number for each resubmission. For example, first RFI is 001, second is 002 and first resubmittal of RFI 002 is 002A.
- 3. Limit each RFI to one subject.
- 4. Submit an RFI if one of the following occurs:
 - a. Contractor discovers an unforeseen condition or a circumstance not described in Contract Documents.
 - b. Contractor discovers an apparent conflict or discrepancy between portions of Contract Documents that appears inconsistent or not reasonably inferred from intent of Contract Documents.
 - c. Contractor discovers what appears to be an omission from Contract Documents that cannot be reasonably inferred from intent of Contract Documents.
- 5. Submit an RFI or clarification when discovered. Submit RFIs promptly so as not to delay

Contract schedule and allow Engineer full response time described below.

6. Do not submit an RFI:
 - a. As a request for substitution;
 - b. As a submittal;
 - c. Under pretense of a Contract Document discrepancy or omission without thoroughly reviewing documents;
 - d. In a manner suggesting specific portions of Contract Documents are assumed excluded, or by taking an isolated portion of Contract Documents in part rather than in whole;
 - e. In untimely manner without properly coordinating and scheduling Work of related trades.
 - f. If Contractor submits an RFI contrary to any of above, Contractor shall pay cost of any review and Engineer shall deduct that cost from Contract sum.

B. RESPONSE TIME

1. Engineer, whose decision is final, shall resolve these questions and direct Contractor within a reasonable time. In most cases, Engineer will respond within 5 days. In cases involving complex issues or emergencies, parties may agree in writing to lengthen or shorten response time as appropriate.
2. If Contractor proceeds with affected work before receiving Engineer's response within timeframe described above, Engineer may require Contractor to remove or replace any portion of Work not done according to Engineer's interpretations, clarifications, instructions, or decisions and Contractor is responsible for all resulting losses.
3. If Contractor and Engineer cannot agree on the scope of Contract requirements, Contractor shall follow procedures set forth in General Conditions.

1-6 SUBMITTALS.

1-6.1 General. Provide submittals as specified or when the Engineer requests. Do not furnish or fabricate materials or perform any work requiring submittals before the Engineer reviews and accepts them. Neither the Engineer's review nor acceptance of submittals relieves you of responsibility for errors, omissions or deviations from the Contract Documents unless you specifically called them to the Engineer's attention in the letter of transmittal. You are responsible for the accuracy of the submittals. Allow a minimum of twenty (20) Working Days to review submittals unless otherwise stated in the Specifications. Include a transmittal letter with each submittal. Include payment for submittals in the contract unit price for various bid items. The review period begins again after each submittal or resubmittal.

In providing submittals, you certify they are complete in all respects and that all materials, equipment, and other work included conforms to the Contract Documents. Where the manufacturer, fabricator, subconsultant or designee designs or engineers an item, an engineer registered by the State of California, executing the design within the scope of his registration, must sign the drawings and supporting calculations. Unless the Engineer accepts it, only you may submit data. Data that, in the Engineer's opinion, are incomplete or which you have not checked or which are illegible or do not comply with Contract requirements will be returned to you for resubmittal in the proper form. The City may make this determination at any time during the review period.

Submit data in a format similar to the arrangement of the applicable section(s) of the Specifications unless otherwise specified. The City will return for resubmittal, without review, any submittal that does not follow the format specified and does not conform to the requirements listed below:

- A. Data includes drawings and descriptive information in sufficient detail to show the kind, size, arrangement and operation of component materials and devices, the external connections, anchorages and supports required, performance characteristics, dimensions needed for installation and correlation with other materials and equipment, and all additional information required in the detailed section(s) of the Contract Documents. Identify field dimensions and show their relation to adjacent or critical features, work or products.
- B. Calculations, when the Specifications require them, to support the adequacy of the design to meet specified performance ratings or requirements.
- C. Each drawing or data sheet clearly marked with the name of the project, your name and references to applicable Specification paragraphs and Plan sheets. Collate submittals containing multiple drawings or data sheets prior to submittal.
- D. Where data sheets, catalog cuts or drawings show more than the item under consideration cross out all but the applicable information. Submit only relevant pages; mark each copy of standard printed data to identify pertinent products referenced to Specification Section and Article number. Show reference standards, performance characteristics and capacities, wiring and piping diagrams and controls, component parts, finishes, dimensions and required clearances.
- E. Include drawings showing wiring and pipe layouts on data submitted. Describe the proposed changes in a cover letter and show the essential details of the changes in the data submitted.
- F. Present data clearly and thoroughly. Title each drawing with the project name and number; identify each element of the drawings by reference to a sheet number and detail, schedule or room number of the Contract Documents.
- G. Provide manufacturer's preparation, assembly and installation instructions.
- H. Submit a full range of manufacturer's standard finishes except when more stringent requirements are specified, indicating colors, textures, and patterns for the Engineer's selection.
- I. Submit samples to illustrate functional characteristics of products, including parts and attachments. Label each sample with identification required for the transmittal letter. The Specification section lists approved samples for the Work.
- J. Provide field samples of finishes for the Work at a location acceptable to the Engineer as required by the individual Specifications section. Install each sample complete and finished. You may retain in the completed work, finishes in place that the Engineer has accepted.

A letter of transmittal listing the submittal contents must accompany submittals. Drawings must show the name of the project, your name and, if any, the names of suppliers, manufacturers and subcontractors. Submit shop drawings with enough time for the City's review and in an orderly sequence according to the progress schedule to avoid delay in doing the Work. The City will return for resubmittal the following: drawings not submitted on either 11"x17" or 24"x36" sheets, submittals not accompanied by conforming transmittals and transmittals sent with an incomplete form.

Use a separate letter of transmittal for each specific item or class of materials or equipment that requires a submittal. Transmitting shop drawings on various items using a single letter of transmittal is permissible only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates review of the group or package as a whole.

The City will return any submittal sent (1) without a transmittal letter, (2) with an incomplete form, or (3) by facsimile.

Assign a unique sequential number to each submittal package clearly written in the space provided on the transmittal letter. Use this number in all correspondence to the City when referencing a particular submittal. Do not assign the same submittal number to different submittal packages.

On resubmittals, use the original submittal number followed by the revision number, i.e., the first resubmittal of submittal #1 is numbered 1R1, the second 1R2, etc. The City will return improperly numbered submittals and resubmittals without review. Indicate on the transmittal letter that either no exceptions to the Contract Documents are taken or deviations are submitted. List all deviations indicated on the transmittal letter. You are solely responsible for any omitted deviations. If any deviations are omitted, the City will return the submittal and the engineering data without review for resubmittal. You bear any consequences from the resulting delay.

The Engineer's review of your submittals covers only general conformity to the Contract Documents. The Engineer's acceptance of drawings returned marked NO EXCEPTION TAKEN or RESUBMITTAL NOT REQUIRED (CORRECTIONS ARE NOTED) does not constitute a blanket approval of dimensions, qualities and details of the materials, equipment, device or item shown and does not relieve you of any responsibility for errors, omission or deviations from conforming to the Contract Documents. The City reserves the right to reject any previously accepted equipment, material and construction method that deviates from the Contract Documents. When the City returns drawings and data marked CORRECT AND RESUBMIT, make the corrections noted as the Engineer instructs then resubmit in the same manner as the original submittal.

If the Engineer rejects the submittal, you are responsible for any subsequent time delays at no additional compensation from the City. Subject to these requirements, drawings and data, after final processing by the Engineer, become part of the Contract Documents and the work they show or describe is performed in conformity with them unless the Engineer requires otherwise. In the event of conflict between accepted submittals and other Contract Documents, the most stringent requirements apply unless the City has agreed in writing to less stringent requirements in response to a deviation listed on a submittal letter of transmittal.

Do not begin any part of the Work requiring a submittal until the Engineer has reviewed it and returned it to you with a notation indicating that resubmittal is not required.

The Engineer's review is only of general conformance with the design of the project and general compliance with the Contract Documents. It does not relieve you of full responsibility for providing Contract-required materials, equipment and work, properly fitting and constructing the Work, providing accurate and complete submittals, selecting construction fabricating processes and techniques and performing the Work safely.

1-7 WORK TO BE DONE. Perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work. Leave the Work area in a neat condition. Perform any work not shown in the Plans or Specifications but necessary to complete the Work according to law and government codes and regulations as if in the Plans and Specifications.

Remove and dispose of all structures, debris or other obstructions of any character necessary to accommodate the Work. Where the obstructions are improvements the City is not legally required to remove, you must remove, maintain and permanently replace them at your expense.

1-8 SUBSURFACE DATA. Soil and test hole data, groundwater elevations and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths indicated. Soil test reports for test holes already drilled are available for inspection at the Engineer's office. You may perform additional subsurface exploration at your own expense. The indicated groundwater elevation is that which existed on the date specified in the data. It is your responsibility to determine and allow for the groundwater elevation on the date you perform the Work. A difference in groundwater elevation between that shown in soil boring logs and that actually encountered during construction is not a basis for Extra Work per 2-3.

1-10 REFERENCE POINTS AND ELEVATIONS.

1-10.1 General. When required by the Work, the City will furnish at its expense an engineering survey of the project site giving, as applicable, benchmark elevation points, property lines and corners. Lay out the Work and preserve all established benchmark elevation points, property lines and corners and do not demolish, relocate or change the location of any benchmark elevation point, property line or corner without the Engineer's prior written approval. If any benchmark elevation point, property line or corner is lost, destroyed or relocated, notify the Engineer before replacing and relocating it. At your expense, engage the services of a State of California licensed surveyor to replace and relocate benchmark elevation points, property lines or corners lost, destroyed or relocated.

1-10.2 Conformity with the Contract Documents. The Work must conform to the lines, grades, dimensions, tolerances and material and equipment requirements shown on the Contract Documents. Although the Engineer may consider measurement, sampling and testing in determining conformity, the Engineer is the sole judge of whether the work or materials deviate from the Contract Documents and that decision is final.

If the Plans do not show specific lines, grades and dimensions, those the Engineer furnishes govern.

1-11 ENGINEER'S AUTHORITY. The Engineer is authorized to enforce compliance with the Plans and Specifications. Promptly comply with the Engineer's instructions. The Engineer's decision is final and binding on all questions relating to quantities, acceptability of material, equipment or work, execution, progress or sequence of work and interpretation of the Plans, Specifications or other Contract Documents. This precedes any payment under the Contract unless the Engineer orders otherwise.

Subject to the provisions of Government Code § 8546.7, this Contract and all related documents are subject to the examination and audit of the State Auditor at the request of the City or as part of any audit of the City, for a period of three (3) years after final payment under the Contract.

At the City's request, prepare and give the City any reports concerning your performance under this Contract. The City may also, at any time with 72 hours advance written notice, audit your books, records and documents related to your performance and your compliance with all Contract terms and conditions.

All drawings, documents, and other materials you prepare in performing this Contract are:

- A. City property. At the City's request or upon termination of the Contract, deliver them to the City at your cost; and
- B. Confidential. Do not make them available to any individual or entity without the City's prior written consent.

1-12 INSPECTION.

1-12.1 General. The City Representative will inspect the Work and the inspection will include monitoring and enforcing compliance of materials, equipment, installations, workmanship and methods to requirements of the Contract Documents.

The City Representative must, at all times, have safe access to the Work during construction and must be given every reasonable means to ascertain the progress, workmanship and character of materials and equipment used in the Work.

If you change project work hours and require City inspection services during those hours, give the Engineer at least two (2) Working Days written notice to arrange them.

The City Representative will inspect all installations to be backfilled or covered before backfilling. Give the City Representative a minimum of two (2) Working Days advance notice before backfilling or covering any part of the Work.

Work performed or materials concealed without the required notice specified above is subject to any tests or exposure necessary to prove to the Engineer's satisfaction that all materials used and work done conform to the Contract Documents. Furnish and pay for all labor and equipment necessary to expose, test and replace, at no cost to the City, any materials or work damaged by exposure or testing.

At your expense, make good defective work including any unsuitable materials and equipment the City Representative inspected and whose payment has been included in an estimate for payment.

Inspection of the Work does not relieve you of your obligation to fulfill all Contract requirements.

Send all Work-related inspection submittals and correspondence between you and the City to the Engineer.

Follow directions and procedures for code inspections mandated by building permits. The City will charge contractors for additional inspection fees for the third (3rd) re-inspection on any item and every re-inspection thereafter.

1-12.2 Inspection Requirements. Notify the City Representative a minimum of two (2) Working Days before inspection is required.

Unless stated elsewhere in the Specifications, the City will inspect the Work between 7 a.m. and 3:30 p.m., Monday through Friday, excluding City holidays. Pay for any inspections required by your actions

outside these hours at the prevailing rate of 1 1/2 times the regular hourly wage rate plus 21 percent for overhead costs.

- A. Submit a request to the Engineer for approval a minimum five (5) Calendar Days, before inspections are required as a result of your actions on Saturdays, Sundays or City and federal holidays. Pay for these inspections at the prevailing rate of 1 1/2 times for Saturdays and 2 times the regular hourly wage rate for Sundays or City and federal holidays plus associated overhead costs.
- B. For purposes of this section, the City observes the following holidays:
 - 1. New Year's Day
 - 2. Martin Luther King Jr. Day
 - 3. Presidents' Day
 - 4. Memorial Day
 - 5. Independence Day
 - 6. Labor Day
 - 7. Veterans Day
 - 8. Thanksgiving Day
 - 9. Day after Thanksgiving
 - 10. Christmas Eve
 - 11. Christmas Day

A construction calendar showing the days each of these holidays are observed is available from the Engineer.

- C. Telephone the City Representative at least two (2) Working Days before starting construction or resuming construction after suspension of the Work for any reason.

Before beginning any work on the Contract, submit a complete City of Irvine Inspection Overtime Permit form.

- D. In addition to any inspection required by Codes and Ordinances or Contract Documents, notify the Engineer a minimum of two (2) Working Days before permanently concealing any materials or work. The following list is typical but not inclusive of such required inspections:
 - 1. Foundation/subgrade material, footing and slab beds
 - 2. Reinforcing for concrete, masonry and plaster
 - 3. Contact surface of concrete forms
 - 4. Concrete and masonry surfaces
 - 5. Piping and conduit
 - 6. Finish grade prior to paving, seeding or planting
 - 7. All soil mixes prior to installation
 - 8. All chemicals and amendments prior to installation or application
 - 9. Framing
 - 10. Insulation
 - 11. Waterproofing

1-13 SPECIAL NOTICES. Any notice to be served according to this section, whether provided in the Specifications or directed by the Engineer, must be in writing, dated and signed by you or the Engineer. These notices are not effective unless served as follows:

- A. Notice to the City: by personal delivery or by deposit in the United States mail, in a sealed envelope addressed to the City, postage paid and registered.
- B. Notice from the City to you: by personal delivery to you or to your authorized representative or by deposit in the United States mail, in a sealed envelope addressed to you at your regular place of business or any other address established to conduct the work under this Contract, postage paid and registered.
- C. Notice to the surety or to any other person: by personal delivery, or by deposit in the United States mail, in a sealed envelope addressed to the surety or person at the address of the surety or person given to the noticing party, postage paid and registered.

1-14 CORRESPONDENCE. Unless the Engineer specifies or requests otherwise, do not send routine correspondence, including submittals, by facsimile (fax) machines or internet email. The City will allow internet email for urgent matters such as notification of a change of conditions. Unless otherwise allowed by the Engineer, direct all internet email to the Engineer. The Engineer will give you his/her internet email address at the pre-construction meeting. Internet email received after 2 p.m. is considered received the following Working Day. Follow up all internet email with a paper copy mailed to the Engineer on the same day you send the internet email. The Engineer will not accept any illegible internet email correspondence.

1-15 CONTRACT COORDINATION. Coordinate scheduling, submittals and the Work to assure an efficient and orderly sequence of installing construction elements that will accommodate later installations.

Hold coordination meetings and pre-installation conferences with City Representatives and subcontractors in addition to the weekly progress meetings required by the City, to assure coordination of the Work.

If the City exercises partial Acceptance or beneficial occupancy of the premises, coordinate site access to complete work or to correct defective work and work not strictly conforming to the Contract Documents to minimize disruption of the City's activities.

ARTICLE 2 – CHANGES IN THE WORK

2-1 CHANGES REQUESTED BY THE CONTRACTOR.

2-1.1 General - The Engineer may grant changes to the Plans and Specifications that you request in writing, which do not materially affect the Work and which are not detrimental to the Work or to the City's interests. This does not grant you the right to demand that the Engineer accept your changes.

To request a change, submit a written Change Order Request to the Engineer that contains:

- A. Description of the proposed changes;
- B. Statement of the reason for the changes;
- C. Reference to applicable Specifications sections and specific plans that support your request;
- D. Statement of the effect on the Contract Price and Contract Time;
- E. Statement of the effect on the work of separate subcontractors;
- F. Documentation supporting any change in Contract Price or Contract Time, if appropriate.

2-2 CHANGES REQUESTED BY THE CITY.

2-2.1 General. The City may issue a written Change Order that includes the dollar value of the change or establishes the payment method and any adjustment in the Contract Time to modify the Work including, but not limited to, the Plans, Specifications, character, quantity or time of the Work.

The Engineer may order minor changes in the Work not involving an increase or decrease in the Contract Price, or a change in the time for completion but that are consistent with the purposes for which the works are being constructed. If you believe any order for minor changes in the Work involves changes in the Contract Price or time of completion, stop work on the minor changes ordered and immediately after receiving the order, notify the Engineer in writing of your estimate of the change in the Contract Price and time of completion.

The City will not pay for changes in the Work or in the time of completion unless the changes are covered by a City-approved, written Change Order before you begin the changed work.

Once both parties execute a Change Order it is final and you waive your right to seek additional compensation for the work covered or by any project impacts. All Change Orders constitute full payment for the work they cover, including all direct and indirect overhead expenses.

Despite any other provision in the Contract Documents, the City's Change Order does not constitute the City's waiver of, or preclude the City from asserting, any claim respecting it, including but not limited to, a claim of breach of contract or a claim that the issued Change Order covers work included in the scope of Work in the Contract Documents for which you were not entitled to additional funds and time extension.

A Change Order is approved when the City signs it and a purchase order is issued.

The Engineer may approve and issue a Contract Change Order at any time. If you disagree with any terms or conditions in an approved Contract Change Order, you did not execute, proceed with the Change Order work according to 2-5 of the Specifications and submit a written protest to the Engineer within fifteen (15) days after receiving the approved Contract Change Order. The protest must include the points of disagreement and cite the Specification references, quantities and costs involved. If you

do not submit a written protest, you will be paid per the approved Contract Change Order and that payment constitutes full compensation for all work included in or required by it. The City considers unprotested approved Contract Change Orders as executed Contract Change Orders.

The Engineer may also initiate changes by sending you a Request for Quotation that includes a detailed description of the change, products, location of the change and supplementary or revised Plans and Specifications. This request is not an instruction to execute the changes or to stop work in progress.

Support each quotation for a lump-sum proposal and for each unit price not previously established, with sufficient substantiating data to allow the Engineer to evaluate the quotation.

On request, provide additional data to support time and cost computations, labor, equipment, product requirements, a recommended purchase source and unit cost and quantities required, taxes, insurance as well as credit for work deleted from the Contract, similarly documented, and justification for any change in Contract Time.

Support each claim for additional costs and for work done on a time-and-material/force account basis with the documentation required for a lump-sum proposal, plus the following:

- A. Name of the City Representative who ordered the work and the date of the order;
- B. Dates and times work was performed and by whom;
- C. Time record, summary of hours worked and hourly rates paid;
- D. Receipts and invoices for equipment used showing dates and times of use, products used, quantities and subcontracts.

In lieu of a Request for Quotation, the Engineer may issue a written Field Order for you to proceed with a change subsequently included in a Contract Change Order. Field Orders describe changes in the Work, both additions and deletions, and include a copy of revised Contract Documents defining details of the change and designate how any change in the Contract Price and the Contract Time is determined. The Engineer will sign and date the Field Order as authorization for you to proceed with the changes. You may sign and date the Field Order to indicate agreement with its terms. Do the work ordered before you receive an approved Contract Change Order.

2-2.2 Contract Unit Prices.

2-2.2.1 General. If a change is ordered in a work item covered by a Contract Unit Price not involving a substantial change in the character of the work from that shown on the Plans or stated in the Specifications, the City will adjust payment based on the increase or decrease in the quantity and Contract Unit Price.

If the actual quantity of an item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications varies from the Bid quantity by 25 percent or less, payment will be at the Contract Unit Price. If the actual quantity of the item of work varies from the Bid quantity by more than 25 percent, payment will be per 2-2.2.2 or 2-2.2.3.

In the case of an increase or decrease in a Bid Item, using this basis to adjust payment is limited to that portion of the change that, together with all previous changes to that item, does not exceed 25 percent of the total cost of the item based on the original quantity and Contract Unit Price.

2-2.2.2 Increases of More than 25 Percent. If the actual quantity of an item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications exceeds the Bid quantity by more than 25 percent, payment for the quantity in excess of 125 percent of the Bid quantity is based on an adjustment in the Contract Unit Price we mutually agree to or, at the Engineer's option, on the basis of Extra Work per 2-3. The Extra Work per 2-3 basis of payment does not include fixed costs. You recover fixed costs through payment for 125 percent of the Bid quantity at the Contract Unit Price. If payment for units of a bid item that exceeds 125 percent of the price shown on the Bid Item List is less than \$5,000 at the unit price, the Engineer may not adjust the unit price unless you request an adjustment in writing.

2-2.2.3 Decreases of More than 25 Percent.

If the actual quantity of an item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications is less than 75 percent of the Bid quantity, there is no payment adjustment payment unless you request one in writing. If you make a request, payment is based on an adjustment in the Contract Unit Price mutually agreed to or, at the Engineer's option, based on Extra Work per 2-3. In no case, however, will payment be less than would be made for the actual quantity at the Contract Unit Price nor more than would be made for 75 percent of the Bid quantity at the Contract Unit Price.

2-2.3 Agreed Prices. If mutual agreement cannot be reached, the Engineer may direct you to proceed on the basis of Extra Work per 2-3, except as otherwise specified in 2-2.2.2 and 2-2.2.3. Agreed prices must be negotiated before beginning the changed work.

2-2.4 Eliminated Items. If any Bid item is eliminated, payment will be for your actual costs incurred in connection with the eliminated item before written notification from the Engineer stating its elimination. If you order material conforming to the Plans and Specifications to use in the eliminated item before the date the Engineer notifies you of its elimination and that order cannot be canceled, you will be paid for the actual cost of the material which then becomes the City's property. The City will pay you for additional actual handling costs. If the material can be returned, you must return it and the City will reimburse you for the actual cost to do so as well as any handling charges. Actual costs as used here are computed based on Extra Work per 2-3.

2-2.5 Acceleration Clause.

- A. The City reserves the right to accelerate the Work. If the City directs acceleration, its directive will be in writing. Keep cost and other project records related to the acceleration directive apart from normal project costs and records and provide a daily written record of the acceleration cost to the City.
- B. If you believe that the City's action or inaction constitutes an acceleration directive, immediately notify the City in writing. In your written notification, detail the circumstances of the acceleration directive. Do not accelerate your work efforts until the City responds. If the City directs or requires acceleration, maintain all cost records referred to above and provide them to the City daily.
- C. To recover additional costs due to acceleration, document the additional expenses you incurred and paid. The only recoverable labor costs are overtime or shift premium costs or the cost of additional laborers brought to the Site to perform the accelerated work. The only recoverable equipment costs are the cost of added equipment mobilized to the Site to perform the accelerated work.

2-3 EXTRA WORK.

2-3.1 General. The Engineer will classify new or unforeseen work not covered by Contract Unit Prices as Extra Work.

All costs set forth in A through J, below, are part of your overhead and profit and is included in the Contract Amount and covered in 2-3.2.6. Do **not** include any of the following in the Cost of the Work:

- A. Payroll costs and other compensation of your project manager, superintendents, project engineers, officers, executives, principals, owners, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel you employ at the Project site or in your principal or a branch office for general administration of the Work;
- B. Costs and expenses of your principal office, branch offices and office located at the Project site;
- C. Any part of your capital expenses, including interest on your capital employed for the Work and charges against you for delinquent payments;
- D. Cost of premiums for all bonds and for all insurance whether or not the Contract Documents require you to purchase and maintain them excepting the cost of premiums in 2-3.2.6;
- E. Costs due to negligence, act or failure to act by you, any subcontractor, or anyone else directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, correcting defective Work, disposal of materials or equipment furnished in error and repair and replacement of any property damage;
- F. Consumable materials, such as drill bits, abrasive discs, gloves, rags, rope, welding tips, etc.;
- G. Tools and equipment with an original costs of less than \$1,000;
- H. Other overhead or general expense costs of any kind and the cost of any item not specifically set forth in 2-3.2.6;
- I. Consequential expenses including bonding capacity impairment, lost opportunity, labor, wage or cost escalations, legal expenses or changes in taxes;
- J. All costs in 2-3.1 apply to any claims of subcontractors and suppliers, regardless of tier.

2-3.2 Payment.

2-3.2.1 General. When we cannot agree on the price for extra work before you begin it, the City will pay for the extra work based on the accumulation of costs provided here.

2-3.2.2 Basis for Establishing Costs.

- A. Labor - The cost of labor is the actual cost for the wages of workers performing the Extra Work, plus employer paid payroll taxes, workers' compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds and other direct costs resulting from federal, state, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements.

Do not use a labor classification that would increase the Extra Work cost unless you establish the need for it. Report labor costs for equipment operators and helpers only when the costs are not included in the invoice for the equipment rental. The labor cost for foremen must be only for time spent on the Extra Work.

- B. Materials - Report the cost of materials at the invoice or lowest current price at which the materials are locally available and delivered to the Work site in the quantities required plus sales tax, freight and delivery. The City reserves the right to approve materials and supply sources or

to supply materials to you if necessary for the progress of the Work. The City will not apply a markup to any material it provides.

2-3.2.3 Tools and Equipment Rental. To determine equipment rental rate costs, use the rates listed for the equipment in the State of California, Department of Transportation (Caltrans) publication "Equipment Rental Rates and Labor Surcharge," available from Caltrans at <http://www.dot.ca.gov/hq/construc/equipmnt.html>, in effect on the date the work is performed, regardless of ownership and any rental or other agreement you enter into to use the equipment. If the Engineer decides it is necessary to use equipment not listed in that publication, the Engineer will establish a suitable rental rate. You may furnish any cost data that might assist the Engineer to establish the rental rate. Rental time is not reimbursed while the equipment is inoperative due to breakdowns.

Operators of rented equipment will be paid as provided in 2-3.2.2.

The rental rates paid include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance necessary equipment loading, transportation costs and all incidentals.

Equipment used intermittently that could, when not in use, be returned to its rental source at less expense to the City than holding it at the Work site, must be returned unless you elect to keep it at the Work site at no expense to the City.

All equipment must be acceptable to the Engineer, in good working condition and suitable for the purpose for which it is used.

The reported rental time for equipment already at the Work site is the duration of its use on the Extra Work. This time begins when the equipment is first used on the Extra Work plus the time required to move it from its previous site and back or to a closer site.

2-3.2.4 Other Items. The City may authorize other items required on the Extra Work including labor, services, material and equipment. These items must be different from those required for the Work and be of a type not ordinarily available from you or subcontractors.

2-3.2.5 Invoices. Submit vendors' invoices for material, equipment rental and other expenditures with the daily report per 2-3.3. If you do not substantiate the daily report with invoices or other documentation, the City will establish the cost of the item involved at the lowest price that was current at the time of the report.

2-3.2.6 Markup.

2-3.2.6.1 Work by Contractor. The City will add the following percentages to your costs as determined under 2-3 that constitutes the markup for all overhead, increase in your bonds, administrative expenses and profit on your work:

A. Labor	20%
B. Materials	15%
C. Equipment Rental	15%
D. Other Items and Expenditures	15%

2-3.2.6.2 Work by Subcontractors. When any part of the Extra Work is performed by a subcontractor of any tier, the markup established in this section will be applied to the subcontractor's actual cost of the work. Your markup on subcontractor work is limited to 5 percent.

The City will not pay for any item not set in 2-3.2.6.1 and 2-3.2.6.2, including without limitation, your overhead, general administrative expense, supervision or damages claimed for delay in performing the remainder of the Work.

Do not construe this to preclude recovery of your damages stemming from a delay the City is responsible for that is unreasonable under the circumstances and was not within our mutual contemplation.

2-3.3 Contractor Daily Reports. When we cannot agree on the cost of the Extra Work, submit a daily report to the Engineer on City-approved forms that includes applicable delivery tickets listing all labor, materials and equipment involved for that day and other authorized services and expenditures. If you do not submit the daily report by the close of the next working day, you waive any rights for that day. The City will try to reconcile the report daily, which you and the City Representative will sign. If there is a disagreement, each party will enter relevant notes to explain the points in question. Each party keeps a signed copy of the report. Submit reports by subcontractors or others to the City.

Notify the City Representative at the beginning of each day when Extra Work is in progress. The City will not pay for work it has not verified.

The report shall:

- A. List the names of workers, classifications and hours worked
- B. Describe and list quantities of materials used
- C. List the equipment type, size, identification number and hours of operation including loading and transportation, if applicable
- D. Describe other services and expenditures the City requires.

2-3.4 Price Reduction for Defective Cost or Pricing Data.

- A. If the City determines that any price, including profit or fee, negotiated in connection with any Change Order or claim settlement under this Contract, or any cost reimbursable under this Contract, was increased because:
 - 1. You furnished cost or pricing data that was not accurate, complete and current as certified in your Certificate of Current Cost or Pricing Date;
 - 2. A subcontractor, supplier, materialman or prospective subcontractor at any tier furnished cost or pricing data to support a subcontract in your cost estimate that was not accurate, complete and current on the date certified in your Certificate of Current Cost or Pricing Data; or,
 - 3. You or a subcontractor, supplier, materialman or prospective subcontractor at any tier furnished data not within 1 or 2 above, which was not accurate.
- B. The City will reduce the price and modify the Contract in writing, if necessary, to reflect the reduction. Any reduction in the Contract price because of a prospective subcontractor's defective subcontract data, when the subcontract was not awarded to that subcontractor, is limited to the amount plus applicable overhead and profit, by which the actual subcontract or actual Contract cost if there was no subcontract, was less than the prospective subcontract cost

estimate you submitted, provided that the actual subcontract price was not affected by the defective cost or pricing data.

- C. Provide the following certification on all Change Order cost quotations or requests or all requests for equitable adjustment exceeding \$5,000.

CERTIFICATE OF CURRENT COST AND PRICING DATA	
This is to certify that, to the best of my knowledge and belief, cost or pricing data submitted in writing, or specifically identified in writing if actual submission of the data is impractical, to the City to support (proposal quotation, request for equitable adjustment, or other submissions involved, appropriately identified) are accurate, complete and current as of (date).	
Contract No.	_____
Proposed Change Order No.	_____
Company:	_____
Name:	_____
Title:	_____
Date:	_____
Signature:	_____

2-4 CHANGED CONDITIONS. Notify the Engineer of the following Work site conditions, “changed conditions,” in writing, when discovered and before disturbed:

- A. Subsurface or latent physical conditions differing materially from those represented in the Contract Documents;
- B. Unknown physical conditions differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed; and
- C. Remove to a Class I, Class II or Class III disposal site according to provisions of existing law, material differing from that in the Contract Documents you believe may be hazardous waste as defined in § 25117 of the Health and Safety Code

The Engineer will investigate conditions that appear to be changed conditions. If the Engineer determines that conditions are changed conditions and will materially affect costs, the Engineer will issue a Change Order adjusting compensation for that portion of the Work according to 2-2.2, and you may submit a written request for a time extension according to 5-6, which the Engineer will grant.

If the Engineer determines that the conditions do not justify a compensation adjustment, you will be notified in writing. The notice will also advise you of your obligation to notify the Engineer in writing if you disagree.

If you disagree with the decision, submit a written notice of potential claim to the Engineer before beginning the disputed work. This dispute does not excuse you from any scheduled completion date in the Contract and you must proceed with all Contract Work. However, you retain all rights provided either by the Contract or by law pertaining to dispute and protest resolution between the contracting parties. Proceed according to 2-5.

Failing to give notice of changed conditions when discovered and before being disturbed constitutes a waiver of all claims connected to them.

2-5 DISPUTED WORK. If we are unable to reach agreement, the City may direct you to proceed with the Disputed Work and will pay you pursuant to 2-2, 2-3, mediation or arbitration if the City and Contractor agree to it, or as fixed in a court of law.

Keep and furnish records of Disputed Work to the Engineer according to 2-3 but do not construe this as proceeding under 2-3.

ARTICLE 3 – CONTROL OF MATERIALS

3-1 MATERIALS AND WORKMANSHIP.

3-1.1 General. Furnish all materials required to complete the Work, except materials the Specifications designate as City-furnished materials.

All materials, parts, and equipment you furnish for the Work must be new, high grade and defect free. Do not use used materials, parts and equipment unless allowed in the Specifications.

The quality of materials and workmanship are subject to the Engineer's approval. The Engineer will reject materials and workmanship that do not conform to the requirements of the Specifications. At the Engineer's direction, immediately remove defective work or material, whether in place or not, from the Work site at your expense.

If you fail to replace defective or damaged work or material after reasonable notice, the Engineer may have the work or materials replaced and deduct the replacement expense from money owed you.

3-1.1.1 Contractor Equipment and Plants. Operate only equipment and plants suitable to produce the quality of work and materials required on the project. Maintain the equipment and plants in good repair during the Work. Do not use obsolete or badly worn equipment and plants; do not exceed the Manufacturer's ratings.

Design and construct plants according to the general practice for the equipment and with enough capacity to ensure a material production rate adequate to ensure completion within the time limit(s) specified in the Contract Documents, if any.

When ordered by the Engineer, remove unsuitable equipment from the Work site and do not use the unsatisfactory plants and equipment.

3-1.1.2 Adoption or Revision Date for Standards, Codes and Tests. Whenever a standard, code, specification, or test is referred to and the designation representing the adoption date or the latest revision is omitted, use the latest revision of the standard, code, specification or test in effect on the day the Notice Inviting Bids is dated.

Submit, according to Public Contract Code § 3400, data substantiating requests for substitution of "equal" items within thirty-five (35) days of Contract award or before 10 percent of the Contract Working Days have expired, whichever is less. This time is included in the number of Working Days allowed to complete the Work. The Engineer's decision regarding substitution acceptability is final.

Materials, equipment and supplies provided must, at no charge to the City, fully conform to all applicable local, state and federal safety laws, rules and regulations and orders and provide only those materials, equipment, and supplies even though omitted in the Contract Documents, of the particular material, equipment or supply specified.

3-1.2 Protection of Work and Materials. Provide and maintain storage facilities and employ measures that preserve the specified quality of materials used in the Work. Stored materials must be reasonably accessible for inspection. Adequately protect new and existing work and all equipment for the duration of the Contract.

Do not, without the City's written consent, assign, sell, mortgage, pledge or remove installed or delivered equipment or materials necessary to complete the Work.

3-1.3 Inspection Requirements. The Engineer may inspect and test materials for the Work. Supply without charge, any samples that may be required

Give the Engineer a list of your sources of materials including locations where the materials will be available for inspection a minimum of twenty (20) Calendar Days before they are used. The Engineer may inspect, sample or test materials at the supply source or at other locations but the inspection, sampling or testing will not happen until you assure the Engineer of both your cooperation and assistance and that of the material supplier. Insure that the Engineer has free access at all times to the material inspected, sampled or tested. These inspections and tests, if made other than where the material will be incorporated in the Work, do not guarantee acceptance of the material or the continued acceptance of material presumed similar to what the City inspected and tested. The City's inspection and testing do not relieve you or your suppliers of responsibility for quality control.

Deliver the manufacturers' warranties, guarantees, instruction sheets and parts lists furnished with certain materials incorporated in the Work, to the Engineer before the Contract Work is accepted.

You may examine reports and records of inspections made and tests performed when they are available at the Work site.

3-1.3.1 General. The Engineer may inspect material production or product manufacture at the supply source but not before you assure the Engineer of the cooperation and assistance of both you and the material producer. The Engineer must have free entry at all times to the parts of the plant that concern the manufacture or production of the materials. Furnish free of charge, adequate facilities to make the necessary inspection. The City assumes no obligation to inspect materials at the supply source.

Unless otherwise stated in the Specifications, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application and similar shop or plant operations. The Specifications list additional materials and fabricated items that require inspection at the source.

Steel pipe in sizes less than 18 inches and vitrified clay and cast iron pipe in all sizes, are acceptable when certified as compliant with the Specifications subject to sampling and testing by the City. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are inspected only at the Work site. Special items of equipment like designed electrical panel boards, large pumps, sewage plant equipment, etc., are inspected only at the performance testing source. Inspection at the source for other items is provided in the Specifications.

3-1.3.2 Inspection of Materials Not Locally Produced. When you intend to purchase materials, fabricated products or equipment from sources more than 50 miles beyond the City's geographical limits, engage at your expense an inspector or accredited testing laboratory, approved by the Engineer, to inspect the materials, equipment or process before producing any material or equipment. The inspector or representative of the testing laboratory must evaluate the materials to confirm they comply with the requirements of the Plans and Specifications. Forward the required reports to the Engineer. The approved agent must conduct a proper inspection before any materials ship or are processed, fabricated or treated. The agent's approval does not relieve you of your responsibility for complying with the requirements of the Contract Documents.

3-1.3.3 Inspection by the City. The City will provide all inspection and testing laboratory services within 50 miles of its geographical limits.

3-1.4 Test of Materials. Before incorporation into the Work and at no cost to the City, submit samples of materials the Engineer may require and deliver the materials for testing to the place and at the time the Engineer designates. The Engineer may direct, unless otherwise specified, all initial testing and a and two additional retests at no expense to you. The Specifications identify testing you provide and pay for.

To allow enough time to perform the tests, notify the Engineer in writing at least twenty (20) Working Days before you intend to use the materials. The notice must name the proposed supplier and the material source.

If you send the notice of intent to use before the materials are available for testing or inspection, or so far in advance that the materials on hand at the time will be replaced by a new lot before it's used on the Work, re-notify the Engineer when representative samples are available.

The Engineer or a designated representative will make the inspection and testing but if made at any point other than at the point of incorporation in the Work, they do not guarantee acceptance of the materials nor of continued acceptance of materials presumed similar to those inspected and tested.

Test materials according to commonly recognized procedures of technical organizations and any special procedures prescribed in the Contract Documents. Material sampling and testing will occur when, during the process of the Work, the Engineer deems desirable; cooperate in obtaining the samples.

3-1.4.1 Testing Laboratory. Use and pay for the services of an independent testing laboratory, subject to the City's approval, to perform other testing and inspection services required by the Contract Documents.

Before starting Work, submit the name, address and telephone number of your testing laboratory as well as the names of a full-time registered engineer and a responsible officer.

Using testing laboratories does not relieve you of your obligation to perform the Work according to the Contract Documents.

Laboratory field technicians employed by the City have no authority to release, revoke, alter or enlarge on the requirements of Contract Documents or to approve, accept or stop any portion of the Work.

You must:

- A. Cooperate with laboratory personnel, provide access to work and arrange access to manufacturer's operations.
- B. Provide preliminary representative material samples to the laboratory in the required quantities.
- C. Furnish copies of mill test reports.
- D. Provide casual labor and facilities for access to work being tested, obtain and handle samples at the site, facilitate inspections and tests and provide facilities for the laboratory's exclusive use to store and cure test samples.
- E. Coordinate testing requests through the City Representative. Notify the City Representative at least three (3) Working Days before operations to allow for assignment of personnel and scheduling of tests.
- F. Pay for additional laboratory inspections, sampling and testing required for your convenience and when initial tests indicate that work does not comply with Contract Documents.
- G. When required by the Contract Documents, submit the manufacturer's certificate, executed by a responsible officer, certifying that the product(s) meet or exceed specified requirements. Provide the certification in duplicate.

3-1.5 Certificate of Compliance. Give an original, wet signed Certificate of Compliance to the Engineer before using any material or assembled material required by the Specifications or the Engineer.

The Engineer may waive Specifications materials testing requirements and accept the manufacturer's written certificate of compliance that the supplied materials meet those requirements. The Engineer may require inclusion of materials test data with the submittal.

Materials used based on a Certificate of Compliance may be sampled and tested at any time. Submitting a Certificate of Compliance does not relieve you of responsibility for incorporating material into the Work that conforms to the requirements of the Contract Documents. The Engineer may reject any material not conforming to the requirements whether in place or not.

3-1.6 Trade Names or Equals. You may supply any of the materials specified or offer an equivalent. The Engineer will determine whether the material offered is equivalent to that specified. Allow adequate time for the Engineer to make this determination.

A materials list is not intended to be comprehensive or in order of preference. You may offer any material, process or equipment you consider equivalent to that indicated. At your expense, furnish data about items you offer as equivalent to those specified as provided in the Contract Documents.

If the Engineer requires it, test the material to confirm that its quality, strength, physical, chemical or other characteristics including durability, finish, efficiency, dimensions, service and suitability will allow it to fulfill its intended function. The Engineer must approve the test methods. Report the test results promptly to the Engineer who will evaluate them and determine whether the substitute item is equivalent.

The Engineer's findings are final. Do not install and use a substitute item until the Engineer approves it.

If your substitute is not found equal to the specified material you must furnish and install the specified material. No circumstances resulting from the provisions of this section affect the Contract completion time.

Submit a products list as follows:

- A. Within the time stated in the Specifications, send the Engineer the number of copies you need plus four (4) of a list of major products you propose installing that includes the manufacturer's name. Arrange the products by specification section number, title and article number.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards.
- C. The Engineer will reply in a writing that states whether there is a reasonable objection to the listed items. Failure to object to a listed item does not constitute a waiver of Contract Documents requirements.

The following limitations apply to substitutions:

- A. The City will only consider requests for substitutions of products during the time specified in the Contract Documents. The City will consider subsequent requests only in the case of product unavailability or other conditions beyond your control. Material delivery schedules do not justify a substitution.
- B. The City will not consider substitutions indicated on shop drawings or product data submittals without a separate formal request, or if requested directly by a subcontractor or supplier or if acceptance will require a substantial revision of the Contract Documents.
- C. Do not order or install substitute products without the Engineer's written acceptance.
- D. The Engineer will only consider one request for substitution for each product line. If a

substitution is not accepted, provide the specified product.

E. The Engineer will determine the acceptability of substitutions.

Requests for substitutions shall conform to the following:

- A. Submit each request for substitution separately and document each request with complete data to substantiate its compliance with requirements of Contract Documents.
- B. Identify the product by Specifications section and article numbers. Provide the manufacturer's name and address, trade name or product and model or catalog number; list fabricators and suppliers as appropriate.
- C. Include an itemized comparison of the proposed substitution with the specified product, listing variations and referencing Specifications section and article numbers.
- D. Provide cost data comparing the proposed substitution with the specified product and the net change to the Contract Price.
- E. List the availability of maintenance services and replacement materials.
- F. Discuss the substitution's effect on the construction schedule and any changes required in other work or products.

A request for substitution is your representation that you have investigated the proposed product and have determined it is equal to or superior in all respects to the specified product and that you provide the same warranty for the substitution as for the specified product. Coordinate installing the accepted substitute, making any changes necessary for the Work to be complete in all respects. Certify that the cost data you present is complete and includes all related costs under this Contract and waive claims for additional costs related to the substitution that may later become apparent. Submit the number of copies you need plus four (4) of the request for substitution. For accepted products, submit shop drawings, product data and samples and tests conducted in accordance with 1-6.

3-1.7 Weighing and Metering Equipment. Use only scales and metering equipment inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the county for proportioning materials.

The accuracy of a scale, except as stated here, must meet the standards of the Business and Professions Code and the Code of Regulations pertaining to weighing devices. Give the Engineer a Certificate of Compliance for approval prior to operation. Renew the Certificate of Compliance whenever the Engineer requires, at no cost to the City.

Arrange scales, whose figures must be clearly legible, for easy reading from the operator's platform or area. The scales must indicate the true net weight without applying any factor. Scales must be accurate to within one (1) percent when tested with the plant shut down. Weighing equipment must be insulated against vibration or movement by other operating equipment in the plant area so that the weight error with the entire plant running does not exceed two (2) percent for any setting or one and one half (1.5) percent for any batch.

3-1.8 Calibration of Testing Equipment. Testing equipment including, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments and strain-measuring devices must be calibrated by a testing method acceptable to the Engineer at intervals not exceeding 12 months and after the equipment has been repaired, modified or relocated. Provide calibration certificates when the Engineer requests them.

3-1.9 City-Furnished Materials. City-furnished materials listed in the Specifications are available to you free of charge.

Give the Engineer a written request for City-furnished material at least fifteen (15) Working Days before the date you intend to use it that includes the quantity and type of each material.

The Specifications designate locations where City-furnished materials will be available to you free of charge. Haul those materials to the Work site at your expense, including any loading and unloading that may be involved. If the Specifications do not designate locations, the City will furnish the materials to you free of charge at the Work site. In either case, all handling and placing costs of City-furnished material are included in the price for the contract item involved.

You are responsible for City-furnished materials given to you and must pay all demurrage and storage charges. Once you take possession of City-furnished materials, replace at your cost any that are lost or damaged from any cause. You are liable to the City for the cost of replacing City-furnished materials and the City may deduct those costs from any monies due or that become due to you. All City-furnished materials not used on the Work remains the City's property and you must arrange with the City Representative to return it to the City at your expense.

ARTICLE 5 – PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

5-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. Begin the Work on the date in the Notice to Proceed and diligently complete it in the time provided in the Contract.

Notify the Engineer of your intent to begin work at least two (2) Working Days before starting any work.

Give the Engineer, within ten (10) days after executing the Contract, a construction progress schedule using the critical path method that shows the proposed dates for beginning and completing each item of the Work and the amount you anticipate each monthly payment will be due to you based on the progress schedule.

Format of the schedule is follows:

- A. Prepare schedules as horizontal bar charts with a separate bar for each portion of work or operation according to the approved schedule of values that identifies the first workday of each week. Allow space to update.
- B. Sequence of Listings: Chronological order at the start of each item of work.
- C. Sheet Size: Multiple of 11x17 inches.
- D. Provide a two week look-ahead schedule updated weekly.

Content of the schedules must:

- A. Show the complete sequence of construction by activity, with dates for beginning and completing each construction element. Include any special sequencing specified in the Contract Documents.
- B. Show lane closure notifications and dates.
- C. Provide sub-schedules to define major and significant portions of the entire schedule.
- D. Show the accumulated completion percent for each item and the total percent of Work completed as of first day of each month.
- E. Provide a separate schedule showing dates for product procurement and delivery, shop drawing submittals and equipment installation as well as decision dates for finish selection, if applicable.
- F. Show delivery dates for City-furnished products, if applicable.
- G. Show the critical path.

Revisions to schedules must:

- A. Indicate the progress of each activity to the submittal date and the projected completion date of each activity.
- B. Identify activities modified since the previous submittal, major changes in scope and other identifiable changes.
- C. Provide a written report describing any problem areas, anticipated delays and their impact on the schedule and include the corrective action taken or proposed and its effect.
- D. Revise periodically as the Engineer directs. Failing to comply with an Engineer's directive is grounds for delaying the progress payment.
- E. Show the revised critical path.

Required submittals:

- A. Submit initial schedules within ten (10) days of executing the Contract. If requested, resubmit required revisions within seven (7) days of the request.
- B. Submit an update schedule on or before the first day of each month beginning one month after the initial schedule as outlined in A, above. If requested, resubmit required revisions within seven (7) days of the request.
- C. Submit four (4) copies of schedules to the Engineer.
- D. Submit with a transmittal letter.

In addition:

- A. Distribute copies of current schedules to the job site file, subcontractors, suppliers and other concerned parties.
- B. Instruct recipients to report promptly, in writing, problems they anticipate will result from schedule projections.

Include the cost to conform to these requirements in the various items of work at no additional compensation.

5-2 PROSECUTION OF THE WORK. Diligently perform the Work to completion. If the Engineer determines you are not timely performing the Work you must, upon the Engineer's order, immediately take steps to remedy the situation. Include all costs to perform the Work as specified in the Contract Price. If you fail to take the necessary steps to comply fully with the Engineer's orders, the Engineer may suspend the Work completely or in part, until you do. If Work is suspended through no fault of the City, you are responsible for all expenses and losses you incur during the suspension. If you do not properly provide for public safety, traffic and protection of the Work during periods of suspension, the City may elect to do so and deduct its cost from monies due you. These actions do not relieve you of liability.

5-2.1 Time of Completion and Forfeiture Due to Delay. Complete the Work called for under the Contract within the time set forth in the Contract Documents.

You agree, according to Government Code § 53069.85, to forfeit the per day amount required by the Contract for each day of delay. The City will deduct that amount from any payments due or that become due to you.

The City has endeavored to identify all areas of the site which may contain hazardous waste as defined by Health and Safety Code § 25117, and unless otherwise noted, hazardous waste in these areas has been mitigated. However, the parties acknowledge the possibility that additional hazardous waste exists not previously identified. If, during the course of your work, you encounter hazardous waste, promptly notify the City through its designated representative. If the material is "hazardous waste" pursuant to Health and Safety Code § 25117, the City may have you perform the mitigation work or may have it done under a separate contract. If you perform the mitigation work, the City will pay its cost as an addition to the work according to Article 2. To the maximum extent permitted by law, the City is not be liable for any damages other than an appropriate time extension for delays caused by the hazardous waste conditions contemplated here.

The City will not penalize you for delays in completing the work due to unforeseeable causes beyond your control and without your fault or negligence, including but not limited to acts of nature or of the public enemy, acts of the government, acts of the City, acts of another contractor in performing a contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and

unusually severe weather. These delays, except for acts of the City, do not entitle you to additional compensation. Your sole remedy is a time extension granted according to this section.

Within five (5) Calendar Days from the beginning of the delay, notify the Engineer in writing of the cause of the delay. The Engineer will establish the facts and the extent of the delay and extend the time to complete the Work if, in his judgment, the findings of fact justify an extension. The Engineer's findings are final.

5-2.2 Order of Work Requirements. When required by the Specifications or the Plans, follow the sequence of operations and restrictions required there.

Perform the Work to conform to the construction staging in the Specifications. Subject to the Engineer's approval, non-conflicting work in subsequent stages may proceed concurrently with work in preceding stages if you maintain satisfactory progress in the preceding stages. The Engineer's approval of any modifications you request to the order of work or staging of the work are not grounds for a Change Order request or a time extension request. If you deviate from the specified order of work or the staging plans, you do so at your own risk and assume all time impacts and cost associated with them.

5-3 SUSPENSION OF THE WORK.

5-3.1 General. The Engineer may suspend the Work in whole or in part for any time the Engineer finds in the City's best interest, for its convenience or due to your failure to carry out orders given or to perform any provision of the Contract. Immediately comply with the Engineer's written order to suspend the Work in completely or in part and resume work only when the Engineer orders or approves in writing.

The City is not liable for these suspensions except as specified in 5-6.3., which provides that delays resulting from suspensions the Engineer ordered because you failed to carry out orders given or to perform any provision of the Contract are not delays for which the City is responsible.

If the Engineer orders a work suspension as provided here, do at your expense, all the work necessary to provide a safe, smooth unobstructed passageway through construction for the public during the suspension period as provided in 6-9 and as stated in the Specifications. If you do not perform the work specified above, the City will perform the work and, if the suspension is due to your failure to carry out orders given or to perform any provision of the Contract, the City will deduct the cost from monies due or that become due to you.

If the Engineer orders a work suspension according to this section, the days on which the suspension order is in effect are Working Days if those days are Working Ways within the meaning of the definition in 5-7.2.

Suspending the Work does not relieve you of your responsibilities in the Contract Documents.

You may resume the Work after you provide:

- A. A revised schedule showing each task yet to be accomplished and the timeline to perform each one to completion
- B. Work force projections attached to each task listed by workweek
- C. Cost expenditures attached to each task summarized by workweek
- D. Lien releases from each subcontractor, supplier and vendor from whom you requested materials, equipment or any other service acknowledging the payments received
- E. An Income and Expense Statement projecting how you will finance the rest of the project

5-4 TERMINATION OF THE CONTRACT FOR DEFAULT.

5-4.1 General. If, before the Work is accepted, you:

- A. Become insolvent, assign your assets for the benefit of your creditors, are unable to pay your debts as they become due or are otherwise financially unable to complete the Work;
- B. Abandon the work by failing to report to the work site and diligently performing the Work to completion;
- C. Disregard written instructions from the Engineer or materially violate provisions of the Contract Documents;
- D. Fail to perform the Work according to the schedule approved by the Engineer;
- E. Disregard laws or regulations of any public body having jurisdiction or commit continuous or repeated violation of regulatory or statutory safety requirements, the City will consider you in default of the Contract.

Transmit notices and other written communications regarding default between you, the City and the surety according to 1-13.

In the event the City terminates this Contract for grounds later determined not to justify a termination for breach, the termination becomes a Termination of the Contract for Convenience pursuant to 5-5.

5-4.2 Notice to Cure. The City will issue a written notice to cure the default to you and to your surety. Begin satisfactory corrective actions within five (5) Working Days after receiving the notice.

5-4.3 Notice of Termination for Default. If you fail to begin satisfactory corrective action within five (5) Working Days after receiving the notice to cure or to diligently continue satisfactory and timely correction of the default, the City will find you in default of the Contract and the City:

- A. Will terminate your right to perform under the Contract by issuing a written notice of termination for default to you and to your Surety;
- B. May use any materials, equipment, tools or other facilities you furnished to secure and maintain the Work site; and
- C. May furnish labor, equipment and materials the City finds necessary to secure and maintain the Work site.

The provisions of this subsection are in addition to all other legal rights and remedies available to the City.

5-4.4 Surety Responsibilities. When receiving written notice of termination for default, the surety must immediately assume all your rights, obligations and liabilities under the Contract. If the surety fails to protect and maintain the Work site, the City may do so and may recover all costs incurred. The Surety must notify the City that it is assuming all your rights, obligations and liabilities under the Contract. The City will pay all money that is due, or would become due to you, to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receiving the written notice of termination for default, the Surety must give the City a written plan detailing the course of action it intends to take to remedy the default. The City will review the plan and notify the Surety if the plan is satisfactory. If the Surety does not submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan the City accepts, the City may exclude, with 48 hours written notice, the Surety from the premises, take possession of all material and equipment and complete the Work in any way the City decides is appropriate. The City will charge its cost to complete the Work against the Surety and may deduct any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety must pay the City, within 30 days after the City submits an invoice, all costs in excess of the remaining Contract Price.

5-4.5 Payment. The City will pay the Surety to complete the Work according to 8-3 minus the value of damages your acts caused the City.

5-5 TERMINATION OF THE CONTRACT FOR CONVENIENCE. The City reserves the right to terminate the Contract at any time if the Engineer determines termination is in the City's best interest.

If the City elects to terminate the Contract, the following govern the termination and your total compensation:

- A. The Engineer will issue a signed written notice, terminating the Contract. Upon termination, you are relieved of further responsibility for damage to the Work excluding materials as specified in 3-1.2, 6-14 of the Specifications and, except as otherwise directed in writing by the Engineer, you must:
 - 1. Stop all work under the Contract except any you are specifically directed to complete;
 - 2. Perform work the Engineer believes necessary to secure the project for termination;
 - 3. Remove equipment and plant from the Work site;
 - 4. Protect materials from damage;
 - 5. Notify all subcontractors and suppliers that the Contract is terminated and that their contracts or orders are not to be performed unless the Engineer authorizes it in writing.
 - 6. Provide the Engineer an inventory of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work including their storage location and other information the Engineer may request.
 - 7. Dispose of materials not yet used in the Work as directed by the Engineer. Provide the City good title to all materials the City purchased, including materials partially paid for as provided in 8-3.2, and with bills of sale or other documents of title for those materials.
 - 8. Subject to the Engineer's prior written approval, settle all outstanding liabilities and all claims arising out of subcontracts or orders for terminated materials. To the extent directed by the Engineer, assign all your right, title and interest under subcontracts or orders for materials terminated to the City.
 - 9. Give the Engineer documentation you are required to furnish under the Contract including, on projects where federal funds are involved, all documentation required under the federal requirements in the Contract.
 - 10. Take other actions directed by the Engineer.
- B. Accepting the Contract as specified here does not relieve you of responsibility for damage to materials. You remain responsible for damage to materials after the Notice of Termination is issued, except as follows:
 - 1. Your responsibility for damage to materials partially paid for as provided in 9-3.2 and for materials the City furnished for but not used in the Work ends when the Engineer certifies that those materials are stored in the manner and at the locations the Engineer has directed.
 - 2. Your responsibility for damage to materials the City purchased after receiving the Notice of Termination ends when the City has taken title and delivery of the materials.

When the Engineer determines that you have completed the Work under the Contract you were directed to complete before termination and any other work that may have been ordered to secure the project for termination, the Engineer will formally accept the Contract and immediately after the Engineer's acceptance, you are not required to perform any further work.

- C. Terminating the Contract does not relieve the surety of its obligation for any just claims arising out of the work performed.
- D. Where the City terminates the Contract for its convenience and not your fault, the Engineer determines your total compensation based on the following:
1. The reasonable cost to you, without profit, for all work performed under the Contract including mobilization, demobilization and work done to secure the project for termination. In determining reasonable cost, the Engineer will deduct the cost of materials you keep, amounts realized by the sale of materials and for other appropriate credits against the cost of the Work. When, in the Engineer's opinion, the cost of a Contract item of work is excessively high due to costs incurred to remedy or replace defective or rejected work, the reasonable cost allowed will be the estimated reasonable cost of performing the work in compliance with the requirements of the Plans and Specifications. The City will not allow the excessive actual cost.
 2. Your reasonable allowance for profit on the cost of work performed as determined under part 1, above, if you establish to the Engineer's satisfaction that it is reasonably probable you would have made a profit had the Contract been completed. In no event will the profit allowed exceed 4 percent of the cost.
 3. Your reasonable cost to handle material returned to the vendor, delivered to the City or otherwise disposed of as directed by the Engineer.
 4. A reasonable allowance for your administrative costs to determine the amount payable due to termination of the Contract.

All your records and your subcontractors' records necessary to determine compensation in conformance with provisions in 5-5, must be open to inspection or audit by City representatives at all times after the Notice of Termination is issued and for a period of 3 years following.

After the City accepts the Work, the Engineer may make payments on interim estimates before issuing the final estimate in conformance with the provisions in 8-3.2 and 8-4 when, in the Engineer's opinion, the amount paid, together with all amounts previously paid or allowed, do not result in total compensation exceeding that to which you are entitled. All payments, including payment on the final estimate, are subject to deductions for prior payments and amounts, if any, retained under the provisions of the Contract.

PHYSICALLY INCLUDE THE SPECIFICATIONS IN 5-5 IN ALL SUBCONTRACTS.
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5-6 DELAYS AND EXTENSIONS OF TIME.

5-6.1 General. Delays caused by unforeseen events beyond your control entitle you to an extension of the Contract Time as provided here, but you are not entitled to damages or additional payment due to these delays except as specified in 5-6.3. Unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather or elements necessitating work stoppage, inability to obtain materials, labor or equipment, required extra work or other specific events as further described in the Specifications.

The City will not grant you an extension of time for a delay because you are not able to obtain materials unless you give the Engineer documentary proof. Provide the proof in a timely manner in accordance with the sequence of your operations and the approved construction schedule.

If events beyond your control cause delays other than those mentioned above, the Engineer may decide an extension of time is in the best interests of the City. You are not entitled to damages or additional payment due to these delays except as otherwise specified in 5-6.3.

If the cause of delays beyond your control is due solely to the City's action or inaction, the delays will entitle you to an extension of time per 5-6.2.

5-6.2 Extension of Time. The City may, from time to time, extend the time fixed to complete the Work. All applications for time extensions must be in writing filed with the City before the original time fixed in the Contract expires or as previously extended.

The City may extend the time after the time originally fixed in the Contract expires or as subsequently extended, and the extension granted begins on the expiration date. No time extension releases the sureties on any bond required under the Contract or affects forfeitures due to delay.

The City will not grant time extensions for delays not on the critical path.

5-6.3 Payment for Delays. Pursuant to § 7102 of the Public Contract Code, the City will compensate you for damages incurred due to delays for which the City is responsible. The Engineer will determine the actual costs. The City is not liable for damages you could have avoided by any reasonable means such as judicious handling of forces, equipment, or plant. The Engineer will determine damages you could have avoided.

5-6.4 Written Notice and Report. If you want payment for a delay specified in 5-6.3 or an extension of time, file a written request and report of cause with the Engineer within ten (10) Calendar Days after the delay begins. Make your request for payment or extension at least ten (10) Calendar Days before the specified completion date. If you fail to file these items within the times specified the City may refuse your request.

5-7 TIME OF COMPLETION.

5-7.1 General. Complete the Work within the time specified in the Contract or the Specifications. Complete each portion of the Work within the time specified in the Contract or the Specifications for that portion. Unless otherwise specified in the Contract or the Specifications, express the Contract Time of completion in Working Days.

5-7.2 Working Day. A Working Day is any day within the period between the date the Contract Time as specified in 5-1 starts and the date the Engineer accepts the Work, other than:

- A. Saturday
- B. Sunday
- C. Any day the City designates a holiday
- D. Any other day designated as a holiday in a Master Labor Agreement you enter into or that was entered into on your behalf as an eligible member of a contractor association,
- E. Any day you are prevented for cause from working at the beginning of the workday as specified in 5-6.1, or
- F. Any day you are prevented for cause from working during the first 5 hours with at least 60 percent of the normal work force as specified in 5-6.1.

5-7.3 Contract Time Accounting. The Engineer will make a daily determination of each Working Day to be charged against the Contract Time and will discuss this determination with you. You will get a Weekly Statement of Working Days showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Contract Working Days remaining. If you do not agree with the statement, file a written protest within fifteen (15) days after receiving it that sets out the facts of the protest. Otherwise, the City assumes you accept the statement as is.

5-8 COMPLETION, ACCEPTANCE, AND WARRANTY.

5-8.1 Completion. When you consider the Work, or a designated portion of the Work, if specified in the Contract Documents is complete, submit a written request for inspection to the Engineer. By submitting the request, you certify that:

- A. You have reviewed the Contract Documents.
- B. Work is complete according to Contract Documents and is ready for inspection.
- C. Equipment and systems have been tested, adjusted/balanced and are fully operational.

Submit your request a minimum of five (5) Working Days before the requested inspection date. Allow sufficient time during the Contract to complete inspections and make any corrections. Each day beyond the time prescribed to complete the Contract is subject to assessment of liquidated damages according to 5-9.

If the City Representative's inspection finds the Work is not complete, the City Representative will notify you in a writing that lists the deficiencies observed. Remedy the listed deficiencies immediately and send a request for final inspection. If you do not remedy the deficiencies, the City may order, at its option, reinspection(s) of the work to identify any additional deficiencies. The City's costs for the reinspection(s) are subject to 5-8.2.

When the City confirms the Work is complete and closeout submittals as referred to in 5-8.3 provided, the City Representative will notify you of the date of completion on the Weekly Statement of Working Days.

5-8.2 Acceptance. Acceptance occurs after all the requirements in the Contract Documents are met. If, in the Engineer's judgment, you have fully performed the Contract, the Engineer will recommend accepting your performance of the Contract.

5-8.3 Warranty. Warrant the Work against defective materials and workmanship for a period of one (1) year. The warranty period starts on the date the Engineer determines the Work is complete.

The warranty period for specific items covered under manufacturers' or suppliers' warranties begins on the date the items are put into service at the direction of or as approved by the Engineer in writing.

Assign to the City in writing, warranties, express or implied, from subcontractors, manufacturers or suppliers of any tier, for the materials furnished and work performed. Deliver the warranties to the Engineer before your performance of the Contract is accepted.

After notice from the Engineer and within the time specified in the notice, replace or repair defective materials and workmanship to the Engineer's satisfaction. If you do not make the replacement or repairs within the time specified, the City may perform the work at your expense. If you do not reimburse the City for its actual costs, your surety is liable for them.

5-8.4 Reinspections. If completion of the Work requires reinspection(s) by the City because you did not make corrections after the initial inspection, the City may deduct the cost for reinspection(s) from your final payment. If the Engineer observes more than ten (10) deficiencies, reinspection is required.

Inspections initiated at the City's request are not subject to provisions of this Section.

5-8.5 Closeout Submittals.

Submit:

- A. Project Record Documents clearly marked with all changes to the Plans within thirty (30) Calendar Days of Final Acceptance
- B. Operation and Maintenance Data
- C. Warranties and Bonds

- D. Spare Parts and Maintenance Materials, as specified
- E. Evidence of Payment and Release of Stop Payment Notices
- F. Other data and materials the Contract Documents may require

5-9 LIQUIDATED DAMAGES. Liquidated damages are as specified in the Contract.

5-10 USE OF IMPROVEMENT DURING CONSTRUCTION. The City reserves the right to take over and use all or part of any completed facility or appurtenance. It will notify you in writing before taking this action. The City's action relieves you of responsibility for injury or damage to the completed portions of the improvement resulting from the public's use or from the action of the elements or from any other cause except your operations or negligence. You need not re-clean portions of the improvement before field acceptance except for cleanup necessary by your operations. Nothing in this subsection relieves you from full responsibility for correcting defective work or materials.

If the City takes over and uses all or part of a completed facility or appurtenance, it assumes responsibility and liability for injury to persons or property caused by the use, except for any injury to persons or property caused by any willful or negligent act or omission by you, your subcontractor, their officers, employees, or agents.

ARTICLE 6 – RESPONSIBILITIES OF THE CONTRACTOR

6-1 CONTRACTOR'S EQUIPMENT AND FACILITIES.

6-1.1 General. Furnish and maintain in good condition all equipment and facilities required to properly execute and inspect the Work. Provide and maintain enclosed toilets for employees doing the Work to use. Regularly pump out and maintain these accommodations in a neat and sanitary condition.

Render your machinery and equipment inoperable at all times except during construction. You are responsible for construction means, controls, techniques, sequences, procedures and construction safety.

6-1.1.1 Equipment. Stencil or stamp at a clearly visible location on each piece of equipment except hand tools, an identifying number and:

- A. On compacting equipment, its make, model number and empty gross weight that is either the manufacturer's rated weight or the scale weight.
- B. On meters and on the load-receiving element and indicators of each scale, the make, model, serial number and manufacturer's rated capacity.

Give the Engineer a list describing each piece of equipment and its identifying number before beginning the Work.

Upon request, submit manufacturer's information that designates portable vehicle scale capacities.

Your measuring devices must be tested and approved under California Test 109 in the City's presence or by any of the following:

- A. County Sealer of Weights and Measures
- B. Certified Scale Service City
- C. Division of Measurement Standards Official

6.2 LABOR.

6-2.1 General. You, your agents and employees are bound by and must comply with applicable provisions of the Labor Code and federal, state, and local labor laws.

Immediately remove and do not reemploy on the Work, any worker the Engineer finds to be incompetent, intemperate, troublesome, disorderly or otherwise objectionable or who fails to perform the Work properly and acceptably.

6-2.2 Prevailing Wages. Pursuant to §1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations are on file at the office of the Engineer. Post a copy of these rates at the Work site. Pursuant to §1774 of the Labor Code, you and any subcontractors must pay not less than the specified prevailing rates of wages to workers employed under the Contract. On a federally funded Contract, you and any subcontractors must not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to §1775 of the Labor Code, you and any subcontractors forfeit, as a penalty to the City, the prescribed amounts per calendar day, or portion of it, for each worker paid less than the prevailing wage rates.

6-2.3 Payroll Records. Keep certified payroll records pursuant to §1776 of the Labor Code. You and all your subcontractors must give the City and the Labor Commissioner (Division of Labor Standards Enforcement), certified payroll records every Friday for the preceding week until the Notice of Completion is filed and recorded.

6-2.4 Hours of Labor. Pursuant to §1810 of the Labor Code, eight (8) hours of labor constitute a legal day's work. Pursuant to §1813 of the Labor Code, you and any subcontractors forfeit, as a penalty to the City, the prescribed amount per calendar day for each worker required or permitted to work more than eight (8) hours in any one (1) Calendar Day and forty (40) hours in any one (1) Calendar Week without being compensated according to §1815.

6-3 INSURANCE.

6-3.1 General. Provide and maintain insurance naming the City as an insured or additional insured with you regardless of any inconsistent statement in the policy or any subsequent endorsement whether liability is attributable to you or to the City. The insurance provisions do not limit your indemnity obligations contained in the Contract. Except as specified in 5-10, save, keep and hold harmless the City its officers, employees and agents from all damages, costs or expenses in law or in equity that arise to a person or property because of or while performing the Work, or which may be caused by a negligent act or omission by you, your employees, or a subcontractor. The City is not liable for any accident, loss or damage to the Work before completion except as specified in 5-10.

With the exception of workers' compensation insurance, an insurance company authorized by the Insurance Commissioner to transact business in the State of California must issue the policies you provide. The insurance company must have a policyholder rating of "A" or higher and a financial class VIII or higher as established by A.M. Best or a higher rating established by Moody's or Standard & Poor's.

Notify the City according to 1-13 within five (5) days of the date your insurance carrier notifies you of any changes to or cancellation of the policy.

All policies must be endorsed to state that coverage may not be suspended, voided, cancelled, reduced in coverage or in limits, non-renewed or materially changed for any reason, without thirty (30) days prior written notice from the insurer to the City by U.S. mail or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice must be provided.

In lieu of this endorsement, either:

- A. Submit a letter, signed by the insurance agent or broker, certifying that he/she will notify the City if coverage is suspended, voided, cancelled, reduced in coverage or in limits, non-renewed or materially changed for any reason without thirty (30) days prior written notice from the insurer to the City by U.S. mail or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice will be provided; or
- B. Submit evidence of payment in full of the insurance premium for the life of the policy.

The City project title or description MUST be included in the "Description of Operations" box on the certificate.

Certificate Holder:

City of Irvine
c/o EXIGIS Risk Management Services
P.O. Box 4668 - ECM #35050
New York, NY 10163-4668

The City's insurance certificate tracking services provider, EXIGIS, LLC, will send you an email with instructions for submitting insurance certificates and endorsements.

The cost to defend any claims against the City must not erode or take away from the specified limits of liability.

There will be no separate payment for insurance; include it in the Contract Price.

Without limiting your indemnification obligations, do not begin work until you obtain and maintain, at your sole cost and for the duration of this Contract, insurance coverage as provided below, against all claims for injuries against persons or damages to property that may arise from or in connection with performing the Work by you, your agents, representatives, employees and subcontractors. If you subcontract any portion of the Work in compliance with 1-3 of the Specifications, the contract between you and that subcontractor must require the subcontractor to maintain the same insurance policies you are required to maintain pursuant to 6-3.

Insurance policies are not compliant if they include any limiting provision or endorsement you have not submitted for approval in accordance with 6-3.

Your insurance must be "occurrence" rather than "claims made" insurance except for Professional Liability insurance, which may be for claims made and must apply separately to each insured against whom claim is made or suit is brought, except respecting the limits of the insurer's liability.

The insurance coverage required for General Liability and Automobile Liability must contain the following provisions or provide the following by endorsement:

Name as additional insured the City of Irvine their elected officials, officers, employees, volunteers, boards and representatives shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of the Contract.

Additional Insured Endorsements shall not:

- A. Be limited to "Ongoing Operations"
- B. Exclude "Contractual Liability"
- C. Restrict coverage to your "Sole" liability
- D. Contain any other exclusion contrary to the Contract

This insurance must be primary and any other insurance, deductible or self-insurance available to the insured added by endorsement must be in excess of and not contribute to this insurance.

Immediately report all claims to your insurance carrier and acknowledge receipt within thirty (30) Calendar Days.

No officer, employee, or agent of the City, the Engineer, the City Representative or their consultants are personally responsible for any liability arising under or because of the Contract.

To the maximum extent permitted by law, hold harmless, indemnify, and defend the City of Irvine its representatives and each of its officers, employees, and agents from and against all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (here "claims" or "liabilities") that may be asserted or claimed by any person or entity arising from the willful or negligent acts, errors or omissions of you, your employees, agents, representatives or subcontractors in performing any tasks or services for or on behalf of the City, whether or not there is concurrent active or passive negligence on the part of the City and City Personnel, but excluding claims or liabilities arising from the active negligence or willful misconduct of the City or City Personnel. Additionally:

- A. Defend any action or actions filed in connection with these claims or liabilities and pay all costs and expenses including attorney's fees.
- B. Promptly pay any judgment rendered against the City or any City Personnel for these claims or

liabilities.

- C. Promptly pay the City, if the City and any City Personnel is made a party to an action or proceeding for damages or other claims arising out of or in connection with your negligent performance or failure to perform your work or activities, all costs and expenses the City and City Personnel incurred in the action and reasonable attorney's fees and expert witness fees. The City may retain money due to you under the Contract as the City considers necessary until disposition of the actions or claims.

You must declare and the City must approve any deductibles or self-insured retentions before the City executes this Contract. Before beginning work, give the City, according to 6-3, written confirmation of the deductible for each insurance coverage required by this Contract or of no deductible.

6-3.2 General Liability Insurance. The policy must insure the City, its officers, employees and agents acting within the scope of their duties on the Work against any claims arising out of or in connection with the Work except as specified in 5-10. This policy must provide coverage for on-going and completed operations. The insurance certificate submitted to the City must state that your insurance is primary and that any other insurance held by the City is non-contributory.

General Liability, including premises, operations and mobile equipment, products and completed operations, broad form property damage including completed operations, explosion, collapse and underground hazards, contractual liability, personal injury, and independent contractors' liability: with a minimum limit of **Two Million Dollars (\$2,000,000)** for each occurrence (combined single limit for bodily injury and property damage). A minimum limit of **Two Million Dollars (\$2,000,000)** aggregate for products-completed operations and a minimum limit of **Four Million Dollars (\$4,000,000)** general aggregate. This general aggregate limit must apply separately to your work under this Contract.

Procure and submit evidence of insurance for Products-Completed Operations in accordance with 6-3 for at least three (3) years from the time all Work under this Contract is completed.

The policy or policies must be endorsed to provide that the insurer waives all rights of subrogation against the City and its respective elected officials, officers, employees, agents and representatives for losses paid under the terms of the policy or policies and which arise from work performed by the named insured for the City.

6-3.3 Workers' Compensation Insurance. Pursuant to §1860 and §3700 of the Labor Code, obtain, pay for and maintain in full force for the duration of the Contract, workers' compensation insurance. The insurance company must have a policy rating equal to or better than that of the California State Compensation Insurance Fund. The City, its officers, employees and agents, are not responsible for any claims in law or in equity occasioned by your failure to comply with this requirement.

Pursuant to §1860 and §1861 of the Labor Code, submit the following certification to the Engineer before the City executes the Contract:

"I am aware of the provisions of § 3700 of the Labor code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code and I will comply with those provisions before I begin performing the work of this Contract."

The policy or policies must be endorsed to provide that the insurer waives all rights of subrogation against the City and its respective elected officials, officers, employees, agents and representatives for losses paid under the term of the policy or policies and which arise from work performed by the named insured for the City.

Workers' Compensation and Employer's Liability Insurance: Workers' Compensation Insurance in an amount required by the laws of the State of California (Statutory Limits). Employer's Liability Insurance with a minimum limit of **One Million Dollars (\$1,000,000)** per occurrence.

If you have no employees requiring you to provide Workers' Compensation Insurance, certify that to City in writing before the City executes this Contract. The City and City Personnel are not responsible for any claims in law or in equity occasioned by your failure to comply with this section or with the provisions of law relating to Workers' Compensation.

If you are providing on-site staffing services, the Workers' Compensation insurance must include an Alternative Employers Endorsement.

6-3.4 Auto Liability Insurance. Give the City a certificate of insurance showing coverage of at least **One Million Dollars (\$1,000,000)** for bodily injury and property damage or a combined single limit. This policy shall be "any auto" or for "all autos either owned, hired, or non-owned."

6-3.5 Contractor's Pollution Liability. NA

6-3.6 Builders Risk Insurance. At your expense, obtain, pay for and maintain for the duration of the Contract, builders risk insurance for any property constructed on the City's behalf, covering "all risks" of physical loss and providing coverage for loss or damage from collapse, including collapse resulting from the builder's design error. The value of the insured shall cover 100% of the completed Contract cost and be maintained until the Work is accepted. Proceeds payable under this insurance policy must be fully payable to the City as Loss Payee. This insurance must be endorsed to provide a waiver of subrogation stating that the insurer waives all rights of subrogation against the indemnified parties.

6-3.7 Professional Liability Insurance. NA

6-3.8 Self-Insurance. Self-insurance is subject to the City's review and prior approval. If you use any form of self-insurance, submit:

- A. Notice of election to self-insure
- B. Coverage(s) for which self-insurance applies
- C. The amount of self-insurance
- D. Declaration under penalty of perjury by a certified public accountant certifying the accountant has applied Generally Accepted Accounting Principles guidelines and you have sufficient funds or other resources to cover the self-insurance amounts
- E. Copy of your commercial general liability policy and excess policy, including the declarations page, all amendments, riders, endorsements and other modifications in effect when the Contract is executed, for amounts not covered by self-insurance.

Self-insurance programs and self-insured retentions in insurance policies are subject to a separate annual review and approval by the City of evidence of your financial capacity to respond. Additionally, self-insurance programs or retentions must provide the City with at least the same protection from liability and defense of suits as that first-dollar insurance would provide.

6-4 PERMITS AND LICENSES. Except as provided in the Specifications, obtain all permits and licenses, pay all charges and fees and give all notices necessary and incidental to the lawful performance of the Work. Get these permits and licenses in enough time to prevent Work delays. Keep a copy of all permits at the Site. Give the City copies of permits and licenses one (1) Working Day after obtaining them. Comply with all rules and regulations included in the permits. If you do not conform to these rules and regulations, the City may perform work necessary to conform to them and deduct the cost of the work from any monies due or to become due to you.

You and all subcontractors must obtain within five (5) Calendar Days of executing the Contract, a current City of Irvine Business License and maintain it for the term of the Contract.

If the City obtained permits, licenses or other authorizations applicable to the Work, obtain a rider, pay all fees and comply with the provisions of those permits, licenses and other authorizations.

6-5 CONTRACTOR'S REPRESENTATIVE. Before starting the Work, designate in writing a representative with complete authority to act for you. You may designate an alternate representative as well. This authorized representative must be present at the Work site at all times while Work is in progress. When Work is not in progress and during periods when Work is suspended, make arrangements acceptable to the Engineer for any emergency work that may be required. The City regards any order or communication given to this representative as given to you. A joint venture must designate only one representative and alternate. In the absence of you or your representative, the Engineer may give instructions or directions to the superintendent or person in charge of the specific work to which the order applies. This order must be complied with promptly and referred to you or to your representative.

Whenever you or your authorized representative is absent on any particular part of the Work where direction is necessary, the City Representative will give the direction to the superintendent or supervisor in charge of the particular work who must obey the orders given.

The City reserves the right to approve your Superintendent. Once approved, the Superintendent must remain on the project for the duration of the project so long as he is in your employ.

To communicate with the City, your representative, superintendent or person in charge of specific work must speak, read and write the English language.

6-6 COOPERATION AND COLLATERAL WORK. Determine the nature and extent of any simultaneous, collateral and essential work by others. The City, its workers and contractors and others have the right to operate within or adjacent to the Work during its performance.

The City, you and the workers of contractors, and others must coordinate operations and cooperate to minimize interference.

Your bid must include all costs involved to coordinate your work with others. You are not entitled to additional compensation from the City for damages resulting from such simultaneous, collateral and essential work. If necessary to avoid or minimize this damage or delay, redeploy your work force to other parts of the Work.

Nothing in the Contract grants you exclusive occupancy of the project site. Determine to your own satisfaction the scope of the project and the nature of any other contracts the City awarded or may award in constructing the project, so you perform this Contract in light of these other constraints, if any.

Do not hinder or delay any other contractor working on or adjacent to the project. If performing any project contract is likely to interfere with the simultaneous performance of another contract or contracts, the Engineer will decide which contractor must cease work temporarily and which contractor must continue or whether work under the contracts can be coordinated so that the contractors may proceed simultaneously. On all questions concerning conflicting interests of contractors performing related work, the Engineer's decision is binding on the contractors concerned. The City, the Engineer, the City Representative and their officers, employees and agents are not responsible for damages you suffer or extra costs you incur that result directly or indirectly from performing or attempting to perform any other contract or contracts on the project or from a decision or omission of the Engineer regarding the order of precedence in performing the contracts.

If, because of your negligent acts, any other contractor or subcontractor suffers loss or damage on the Work, settle with the other contractor or subcontractor by agreement or arbitration if the other contractor or subcontractor is agreeable. If the other contractor or subcontractor asserts any claim against the City, the Engineer, the City Representative or their consultants because of damage allegedly sustained, the City will notify you. To the maximum extent permitted by law, all your obligations in 6-3.2 apply to the asserted claims or liabilities against the City, the Engineer, the City Representative and each of their officers, employees and agents.

6-6.1 Coordination. Work by other contractors, utility companies and City forces will be underway adjacent to or within the limits of this project during the Work.

Coordinate your operations with the operations of other contractors that may affect adjacent projects including, but not limited to, those identified in this section.

6-7 WORK SITE MAINTENANCE.

6-7.1 General. Throughout all phases of construction, including suspension of the Work, until acceptance per 5-8, keep the Work site clean and free of rubbish and debris. Store Work site rubbish and debris in roll-off, enclosed containers before disposal; do not stockpile it.

Provide a self-loading, motorized street sweeper equipped with a functioning water spray system to clean all paved areas within the Work site and all paved haul routes at least once each Working Day.

Ensure there are no spills along haul routes. Remove any spills immediately and clean the area.

If you do not keep the Work site free of rubbish and debris, the Engineer may suspend the Work per 5-3 until you correct the condition.

Section 6-7 includes specifications for performing Work site maintenance including spill prevention and control, material management, waste management, water pollution control and non-storm water management.

Comply with City of Irvine Resolution No. 07-18, which establishes requirements for recycling and diverting construction and demolition waste.

Implement effective handling, storage, use and disposal practices to control material pollution and manage waste and non-storm water at the Work site before they enter storm drain systems and receiving waters.

Linear sediment barriers must comply with 6-7.6.2.

6-7.1.1 Construction Cleaning.

- A. Initiate and maintain a daily program to prevent debris accumulation on-site and along access roads and haul routes. Keep areas under your control free of waste materials, debris, weeds 6" high and rubbish. Keep the site clean and orderly.
- B. Provide suitable covered containers for debris and rubbish. Dispose of accumulated extraneous materials, prohibit overloading trucks to prevent spills on access and haul routes and inspect haul routes daily to enforce these requirements.
- C. Supply self-loading, motorized street sweepers equipped with a functioning water spray system as part of your daily program.
- D. Schedule, at a minimum, weekly debris collection and disposal. Provide additional collections and disposals whenever the weekly schedule does not prevent accumulation.

Remove debris from closed or remote spaces before closing the space, control cleaning to minimize dust and other particulates and immediately remove clay and earth on the paved surface of the roadway. Remove by hand scraping, washing, sweeping and other method(s) that will leave a clean, non-skid surface without impairing, injuring or loosening the surface.

Remove waste materials, debris, vegetation, other rubbish and non-recyclable materials as the Contract Documents require and dispose of them off-site in an approved disposal site or recycling center.

Unless otherwise specified, dispose of all concrete, asphalt, aggregate or sand base material, cement block, trees, shrubs, bushes and all other recyclable material generated during cleaning, demolition, clearing and grubbing or other phases of the Work at appropriate recycling centers. Remove reinforcing steel, wood or other harmful materials as required by the recycling center accepting the recycled materials. Supply proof of disposal at a recycling center that includes verification of tonnage by certified weigh masters tickets. If weigh masters tickets are not feasible, you and the City Representative must estimate the tonnage before disposing of it at the recycling centers.

Known recycling centers:

Ewles Materials
16081 Construction Circle West
Irvine

Use water to control dust for the life of the Contract as required by either job conditions or the City Representative. Do not use chemical agents without the City's prior written consent. You are solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

The City will not make a separate payment for work performed or material used to control dust resulting from your performance of the Work or by public traffic either in or outside the right of way. Include full compensation for dust control in the price paid for the various items of work involved.

The City will not make a separate payment for any work performed or material used to clean the project. Include full compensation for cleaning in the price paid for the various items of work involved.

6-7.1.2 Final Cleaning. Clean the Work site before inspection when the Work is complete, using materials that are not hazardous to health or property and that will not damage surfaces. Remove debris from and otherwise clean exposed-to-view surfaces, remove temporary protection and labels not required to remain, clean finishes of foreign substances and remove waste, debris and surplus materials from site. Clean grounds, remove stains, spills and foreign substances from paved areas and sweep them clean. Clean other exterior surfaces and, where applicable:

- A. Clean transparent and glossy materials to a polished condition; remove foreign substances. Polish reflective surfaces to a clear shine.
- B. Vacuum carpeted and similar soft surfaces.
- C. Clean resilient and hard surface floors.
- D. Clean equipment surfaces; remove excess lubrication.
- E. Clean plumbing fixtures to a sanitary condition.
- F. Clean permanent filters of ventilating equipment and replace disposable filters of units operated during construction; clean ducts, blowers and coils when operating units without filters during construction.
- G. Clean light fixtures and lamps.
- H. Remove waste, foreign matter and debris from roofs, gutters, areaways and drainage systems.

6-7.2 Air Pollution Control. Do not release smoke, dust, equipment exhaust or other air contaminants into the air in quantities that violate any federal, state or local regulations. Abate dust nuisance by cleaning, sweeping and spraying with water or other means if necessary. Using water must conform to 6-7.6.

6-7.3 Noise Control. Control noise generated by your operations as specified in the City Municipal Code, Division 8, Chapter 2
(https://www.municode.com/library/ca/irvine/codes/code_of_ordinances?nodeId=TIT6PUWO_DIV8PO).

6-7.4 Storage of Equipment and Materials.

6-7.4.1 General. Remove materials and equipment from the Work site as soon as they are no longer needed. Before the Engineer's inspection for acceptance, clear the Work site of equipment, unused materials and rubbish to present a clean and neat appearance.

Remove excess excavated material from the Work site immediately.

6-7.4.3 Material Management.

6-7.4.3.1 General. Minimize or eliminate discharging material into the air, storm drain systems and receiving waters while receiving, using, or storing the following materials:

- A. Hazardous chemicals including acids, lime, glues, adhesives, paints, solvents and curing compounds
- B. Soil stabilizers and binders
- C. Fertilizers
- D. Detergents
- E. Plaster
- F. Petroleum materials, including fuel, oil, and grease
- G. Asphalt and concrete components
- H. Pesticides and herbicides

Your employees trained in emergency spill cleanup procedures must be present when hazardous materials or chemicals are unloaded.

Where possible, use less hazardous materials.

The following activities must be performed at least 100 feet from concentrated storm water flows, drainage courses and inlets within the floodplain and at least 50 feet if outside the floodplain unless otherwise authorized:

- A. Stockpiling materials
- B. Storing pile-driving equipment and liquid waste containers
- C. Washing vehicles and equipment in outside areas
- D. Fueling and maintaining vehicles and equipment

6-7.4.3.2 Material Storage. If you store materials:

- A. Store liquids, petroleum materials and substances listed in 40 CFR 110, 117, and 302, in secondary containment facilities specified by USDOT for storing hazardous materials.
- B. Ensure that secondary containment facilities are impervious to the materials stored there for a minimum contact time of 72 hours.
- C. Cover and adequately ventilate secondary containment facilities during nonworking days and when rain is forecasted.
- D. Keep secondary containment facilities free of accumulated rainwater or spills. After rain or in the

event of spills or leaks, collect the accumulated liquid and place it in drums within 24 hours. Handle the liquid as hazardous waste according to subsection 6-7 of the General Conditions.

- E. Store incompatible materials like chlorine and ammonia, in different secondary containment facilities.
- F. Store materials in their original containers with the original material labels maintained in legible condition. Immediately replace damaged or illegible labels.
- G. Ensure that secondary containment facilities can contain precipitation from a 24-hour-long, 25-year storm, plus 10 percent of the aggregate volume of all containers or the entire volume of the largest container within the facility, whichever is greater.
- H. Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during nonworking days and whenever rain is forecasted.
- I. Provide enough separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well-organized and equipped with cleanup supplies appropriate for the materials stored.
- J. Repair or replace perimeter controls, containment structures, covers and liners when necessary. Inspect storage areas before and after rain and at least weekly during other times.

6-8.2 Video Recording and Photographing Pre-existing Conditions. Video record and photograph pre-existing conditions at the project site before any construction activities including but not limited to:

- A. Property markers
- B. Right of way and easement conditions
- C. Utility markings and USA markings
- D. Existing property damages
- E. Survey conditions
- F. Pavement conditions, markings, and striping
- G. Adjacent property conditions
- H. Sidewalk, curb, and gutter conditions
- I. Safety conditions
- J. Unusual conditions or equipment
- K. Interior and exterior surfaces
- L. Equipment condition (HVAC, electrical, fire, etc.)
- M. Existing landscape conditions, including vegetation and irrigation, along the project limit.

Submit your recordings/photographs on CD, DVD or USB media to the Engineer no later than five (5) Working Days after the Notice to Proceed is issued.

Include payment for video recording and photographing services in the various items of work; no additional compensation is allowed.

6-9 SAFETY

6-9.1 Work Site Safety.

6-9.1.1 General. Provide safety measures necessary to protect the public and workers within or near the Work site. Ensure your operations do not create safety hazards.

Provide safety equipment, material and assistance to City Representatives so they may inspect all phases of the Work.

When removing asbestos, implement the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7.

6-9.1.2 Work Site Safety Official. Designate in writing a “Project Safety Official” who is at the Work at all times and who is thoroughly familiar with your Injury and Illness Prevention Program (IIPP) and Code of Safe Practices. The Project Safety Official must be available at all times to abate potential safety hazards and must be authorized to and responsible for shutting down an unsafe operation if necessary.

Failure to provide the required Work Site Safety Official is grounds for the City to stop all Work and operations at no cost to the City until you comply.

6-9.1.3 Emergencies. Unusual conditions may arise on the Work that require immediate and unusual provisions to protect the public from danger or loss or damage to life and property due directly or indirectly to the Work. It is your responsibility to provide this protection.

Take steps to protect the public from danger or damage, or loss of life or property, which would result if your work interrupts or contaminates or causes the public water supply, irrigation or other public service to fail or your partly completed work fails.

When the Engineer determines an emergency exists that you could have prevented but did not and your construction may damage the public or utilities or adjacent structures or property as a result, the Engineer may take immediate steps to protect public or private, personal or property interests, or to prevent the loss of human life by having material furnished and work done that the City Representative believes is necessary.

You bear the cost of the labor, material and repair costs determined necessary. If you do not pay them when presented with bills, certified by the City Representative, the City will pay them and deduct that amount from any amounts due, or which may become due to you. The City’s failure to take precautionary measures does not relieve you of your full responsibility for public safety.

The foregoing is in addition to and not a limitation of any other rights or remedies available to the City.

6-9.2 Safety Orders.

6-9.2.1 General. Have copies or suitable extracts of Construction Safety Orders and General Industry Safety Orders issued by the State Division of Industrial Safety at the Work site.

Give the Engineer, as a condition of obtaining City issued permits and before excavating, a permit from the Division of Occupational Safety and Health pursuant to Chapter 6 beginning with § 6500 of Part 1 of Division 5 of the Labor Code and a detailed plan showing the design of shoring, bracing, sloping or other provisions to protect workers from caving ground while excavating any trench(es) five (5) or more feet deep. A registered civil or structural engineer must prepare the plan. As a part of the plan, include a notice stating that the registered civil or structural engineer certifies that the plan complies with the CAL/OSHA Construction Safety Orders. Give a copy of the plan and the permit to the Engineer.

In accordance with generally accepted construction practices, you are solely and completely responsible for job site conditions, including the safety of all persons and property while performing the Work and you

must comply with all local, county, state and federal laws, rules, regulations and orders relating to safety of the public and workers.

Hold harmless, indemnify and defend the City, the Engineer, City Representatives and each of their officers, employees and agents from civil or criminal penalties that result from your failure to comply with applicable safety laws, rules, regulations and orders. To the maximum extent permitted by law, your obligations in 6-3.2 apply in the event of a failure to comply with applicable safety laws, rules, regulations or orders.

The duty, if any, of the City Representative to review construction or to inspect your performance does not include review or inspection of the adequacy of your safety measures in, on or near the construction site.

6-10 PATENT FEES AND ROYALTIES. Assume all costs to use patented materials, equipment, devices or processes on or in the Work and hold harmless, indemnify and defend the City, the Engineer, the City Representative and each of their officers, employees and agents from all claims, suits or actions resulting from your use of patented materials, equipment devices or processes. To the maximum extent permitted by law, your obligations in 6-3.2 apply in the case of these claims, suits or actions.

6-11 LAWS TO OBSERVE.

Stay informed about and report to the City Representative, all existing and future state and national laws and county and municipal ordinances and regulations that affect persons doing the Work, materials used in the Work or performing the Work and of all orders and decrees of bodies or tribunals with jurisdiction or authority over the Plans, Specifications or Contract.

Comply with and require your agents, employees and subcontractors to comply with all existing and future laws, ordinances, regulations, orders and decrees even if not in the Specifications or on the Plans. Hold harmless, indemnify and defend the City, the Engineer, the City Representative and each of their officers, employees and agents against any claim or liability arising from or based on violation of any law, ordinance, regulation, order or decree whether by itself, its employees, its agents or its subcontractors. To the extent permitted by law, all your obligations in 6-3.2 apply in the case of any claim or liability.

Comply with all applicable federal laws, including those set forth in “Federal Requirements” of the Special Conditions.

6-12 ANTITRUST CLAIMS. Pursuant to §7103.5 of the Public Contract Code:

“In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under § 4 of the Clayton Act (15 U.S.C. Sec 15) or Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.”

6-12.1 Property Rights in Materials. Once you attach materials to the Work or the soil or after the City pays you for materials delivered to the Work site or stored under the City’s control, you have no property right in them.

6-12.2 Warranty of Title. Do not purchase any materials, supplies or equipment for the Work subject to a chattel mortgage or under a conditional sale contract or other agreement by which the seller or supplier retains an interest in all or any part. Warrant clear title to all materials, supplies and equipment installed and incorporated in the Work. When all Work is complete, deliver the premises and all improvements and appurtenances you construct or place, to the City free of claims, liens, encumbrances or charges. Confirm that neither you nor any persons, firm or corporation furnishing material or labor for work the Contract

covers has a lien on the premises or any improvement or appurtenance. This does not prevent you from installing metering devices or other equipment of utility companies or of municipalities who commonly retain title to the device or equipment. Nothing in this article defeats or impairs the right of persons furnishing materials or labor under your bond for their protection, or any right under any law permitting persons to look to funds due you from the City.

Insert the provisions of 6-12.2 in all subcontracts and material contracts and give notice of its provision to all persons furnishing materials for the work when there is no formal contract for the materials.

6-13 CONTRACTOR'S RESPONSIBILITY FOR THE WORK. Until the Work is accepted, you are responsible for care of the Work and of the materials used there including materials for which you have received partial payment or materials furnished by the City. You bear the risk of injury, loss or damage to any part of the Work from the elements or from any other cause arising from either the execution or the non-execution of the Work.

At your expense, rebuild, repair, and make good all injuries, losses or damages to the Work or the material from any cause before it is complete and accepted. Where necessary to protect the work or materials from damage, provide at your expense suitable drainage and build temporary structures necessary to protect the work or materials from damage. Suspension of the Work does not relieve you of your responsibility for the work and materials specified here. If ordered by the City Representative, properly store at your expense, materials partially paid for or furnished by the City. Your storage is on the City's behalf and the City is at all times entitled to possess the materials. Promptly return them to the Work site when requested. Do not dispose of any of the stored materials except on the City's written authorization.

In an emergency affecting the safety of life or property, including adjoining property, act at your discretion as though instructed by the City, to prevent the threatened loss or injury.

6-14 PROJECT RECORD DOCUMENTS.

6-14.1 Maintenance of Documents and Samples. Maintain one record copy of:

- A. Contract Drawings
- B. Specifications
- C. Addenda
- D. Change Orders and Other Contract Modifications
- E. Reviewed Shop Drawings, Product Data, and Samples
- F. Field Test Records
- G. Construction Schedules
- H. Manufacturer's Certificates

Maintain documents in clean, dry, legible condition; do not use them for construction purposes.

Keep Record Documents and samples accessible to the City Representative for inspection. The Engineer will not approve applications for partial payment if Record Documents are not current. The City Representative must verify this before submitting each Application for Payment.

6-14.2 Recording. Record changes to the Plans and discoveries of buried objects at the Work on Record Documents with red ballpoint pen. Label each Document "PROJECT RECORD" in large printed letters and record information concurrently with construction progress. Do not conceal any work until the required information is recorded and legibly mark each item on the Contract Drawings and Shop Drawings to record actual construction, including:

- A. Measured depths of elements in relation to a fixed datum point
- B. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements
- C. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible construction features
- D. Field changes of dimension and detail
- E. Changes made by Contract modifications
- F. Details not on original Contract Drawings
- G. Previously unknown buried objects

Legibly mark each item to record actual construction, including:

- A. Manufacturer, trade name, and catalog number of each product installed, particularly optional and substitute items
- B. Changes made by Addenda or modifications

Maintain other documents per the requirements of individual Specifications sections.

6-14.3 Submittals. At Contract closeout, deliver Record Documents and samples per 6-14.1. The Engineer will not approve your request for final payment until you deliver all Record Documents.

Send submittals with a cover letter signed by you or by your authorized representative listing the date, project title and number, and number and title of each Record Document.

6-15 AUDIT AND ACCESS TO RECORDS.

- A. Maintain all books, records, documents and other evidence directly pertinent to performing the Work according to generally accepted accounting principles and practices consistently applied. Maintain all financial information and data you used to prepare or support any cost submission, including your original bid, required for this Contract or any Change Order, claim or other request for equitable adjustment and a copy of the cost summary or information submitted to the City. The Engineer must have access, with twenty four hours advance written notice, at all times during normal business hours, to all books, records, documents, financial information and other evidence to inspect, audit, and copy. Provide, at no cost to the City, proper facilities for this.
- B. Apply the provisions of this section applicable to all Change Orders, claims or other requests for equitable adjustment affecting the Contract Time or price. Physically include the provisions of this section in all subcontracts and material supply contracts or purchase orders at any tier. The provisions of this section apply to all subcontracts at any tier in excess of \$10,000 and to all Change Orders, claims and other requests for equitable adjustment related to project performance.
- C. Audits conducted under this section must accord with generally accepted auditing standards and the established procedures and guidelines of the reviewing or auditing agency.
- D. Release all information discovered and reports prepared after accessing records under the provisions of this section to the City and to other affected agencies.
- E. Maintain and make available during performance of the Work and for three years after final payment or until final settlement of all disputes, claims or litigation, whichever occurs later, records under the provisions of this Section. In addition, maintain and make available, records relevant to the Contract, to any Change Order, dispute, litigation, settlement of any claim arising

out of performance, or cost or items to which an audit exception has been taken until final payment or final resolution of the dispute, litigation, claim or exception, whichever occurs later.

- F. This section applies to all financial records and all Change Orders and claims. It also applies to all records pertaining to all contracts, Change Orders and Contract Amendments:
 - 1. To the extent the records pertain directly to Contract performance;
 - 2. Where there is any indication that fraud, gross abuse or corruption may be involved;
 - 3. Where the Contract is terminated for default or convenience.
- G. Access to records is not limited to the required retention periods. The City's Authorized Representatives must have access to records at any reasonable time for as long as the records are maintained.

6-16 DAILY RECORDS.

- A. Prepare and maintain Daily Inspection Records to document progress of the Work daily. Daily records must include a daily accounting of all labor and all equipment on the site for you and for all subcontractors at any tier. Daily records must clearly distinguish work performed under a Change Order, base scope work and disputed work.
- B. If any labor or equipment is idled solely because of City actions or inactions, the daily records must include which laborers and equipment were idled and for how long. If specific work activities stopped solely because of City actions or inactions and you reassigned labor and equipment to other activities, the daily records must clearly document the activities stopped and where labor and equipment was redirected.
- C. Copy and give the Daily records to the City Representative at the end of every Work Day or at the beginning of the following Work Day.

ARTICLE 8 – MEASUREMENT AND PAYMENT

8-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

8-1.1 General. Unless otherwise specified, the City will determine quantities of work from measurements or dimensions in horizontal planes. However, it will consider linear quantities of pipe, piling, fencing and timber as being the true length measured along the longitudinal axis.

Unless otherwise provided in the Specifications, volumetric quantities are the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter is a precision instrument suitable for measuring all areas.

The Engineer must approve the Schedule of Values, the Construction Schedule and the Contract required submittals before making the initial progress payment.

The Engineer must receive the monthly revised Construction Progress Schedule before making a subsequent progress payment

8-1.2 Measurement Methods. Measure materials and items of work paid based on measurement, according to methods stipulated in the particular sections involved.

8-1.3 Certified Weights. For a payment based on weight, weigh using certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. Give the Engineer duplicate licensed weighmaster's certificates showing actual net weights. The City will accept the certificates as evidence of weights delivered.

8-2 LUMP SUM WORK. The City will pay for items whose quantities are indicated "Lump Sum," "LS," or "Job," at the price indicated in the Bid. That payment constitutes full compensation for the items of work and all work appurtenant to it.

8-2.1 Detailed Schedule. Give the City a cost break-down for all Contract lump sum items. Within fifteen (15) Calendar Days after award of Contract, give the Engineer cost break-down tables to review. The Engineer will approve the cost break-down tables in writing before making any partial payment for the applicable items.

Determine the quantities required to complete the Work shown on the Plans and include the quantities and their values in the cost break-downs you give the Engineer for approval. You are responsible for the accuracy of the quantities and values in your cost break-downs.

The total of the amounts for the line items of work in each cost break-down table for each lump sum item must equal the contract lump sum price bid. Include overhead and profit in each individual line item of work you list.

The City will not adjust compensation in contract lump sum prices because of differences between quantities shown in your cost break-downs and quantities required to complete the Work as shown on the Plans and as detailed in the Specifications.

The City will use individual line item values in the approved cost break-down tables to determine partial payments during the progress of the Work and as the basis for calculating a compensation adjustment for contract lump sum items because of changes in line items of work the Engineer ordered. When the total ordered changes to line items of work increases or decreases the lump sum price bid by more than 25 percent, the compensation adjustment for the applicable lump sum item will be determined as specified for increases and decreases in the total pay quantity of an item of work in Article 2 of the General Conditions.

8-3 PAYMENT.

8-3.1 General. The quantities listed in the Proposal do not govern final payment. The City will pay you only for actual quantities of Contract items constructed according to the Contract Documents. When the Work is complete, if the actual quantities show either an increase or decrease from the quantities in the Proposal, Contract Unit Prices will prevail except as specified in 2-2.2.

The unit and lump sum prices paid are full compensation for the items of work and all appurtenant work including furnishing all materials, labor, equipment, tools and incidentals.

The Schedule of Work included in Section 00 41 00 – Bidder's Proposal, shall be considered as the complete bidding schedule for all items of work shown or made necessary by the Plans, Specifications or Project Special Provisions. The cost of items of work not shown in the Schedule of Work shall be considered as included in other Bid Items shown in the Schedule of Work and no additional compensation will be allowed.

When an item of work is designated as (F) in the "Schedule of Work and Prices," the estimated quantity for that work item is the final pay quantity unless the Engineer revises any dimensions of the item, or the item or a portion of it is eliminated. If the Engineer revises the dimensions of any portion of the item and the revisions result in an increase or decrease in the estimated quantity of that work item, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions. If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

Consider the estimated quantity for each item of work designated as (F) in the "Schedule of Work and Prices" as approximate only; no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the Plans, will equal the estimated quantity. No allowance will be made if the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the "Schedule of Work and Prices" for a final pay item and the quantity or summation of quantities for the same item shown on the Plans, payment will be based on the quantity shown in the "Schedule of Work and Prices."

The City will not pay you for materials wasted or disposed of in a manner not called for in the Contract. This includes rejected material not unloaded, material rejected after it has been placed, and material placed outside the Plan lines. The City will not compensate you for disposing of rejected or excess material.

The City will pay for work performed or materials furnished under an Assessment Act Contract as provided in particular proceedings or legislative act under which the contract was awarded. Whenever, at your request, the City performs any portion of the Work, you are responsible for the cost, which may be deducted from any amount due or becoming due from the City.

When immediate action is required to prevent injury, death, or property damage and you do not take and are not reasonably expected to take precautions which are your responsibility, the City may, after a reasonable attempt to notify you, have precautions taken and charge their cost to you, or may deduct their cost from any amount due or becoming due from the City. Do not construe the City's action or inaction under these circumstances as relieving you or your surety from liability.

Payment does not relieve you of your Contractual obligations. Do not construe payment as acceptance of any of the Work or as the transfer of ownership of any equipment or materials to the City. You retain ownership and are obligated to store any fully or partially completed work or structure for which payment has been made or to replace any materials or equipment you are required to provide under

the Contract which may be damaged, lost, stolen or otherwise degraded in any way before the Work is accepted, except as specified in 6-9.

No payment affects warranty periods.

If the City receives, within the time fixed by law, a properly executed notice to stop payment because you failed to pay for labor or materials used in the Work, it will withhold all money due you for the labor or materials according to applicable laws.

Sixty (60) days after the date the City accepts the Work or as prescribed by law, the City will pay the amount deducted from the final estimate it retained except amounts required by law to be withheld by properly executed and filed notices to stop payment, or as authorized by the Contract to be retained longer.

8-3.1.1 Application for Payment. Use the City of Irvine Certified Invoice for Progress Payment Form furnished to you.

Type the required information and follow the schedule of work and bid prices in your accepted Bidder's proposal for unit price contract. Use data on the accepted Schedule of Values for lump sum work. Provide a dollar value in each column for each line item for the portion of work performed and list each authorized Change Order number and dollar amount and the adjusted Contract Price. Have an authorized officer sign the application to certify it. After getting the City Representative's concurrence on the invoice amount, submit the invoice for payment.

Under a transmittal letter, submit the original and one (1) copy of each Application for Payment as stipulated in 8-3.2. Include the submittal date, project title and number, and submit the updated Progress Schedule with the Application for verification of progress. The City will reject any incomplete payment application.

Submit data supporting any line item amounts the Engineer questions.

Provide one copy of the data with a cover letter for each copy of the data submitted and show the application number and date, and line item by number and description.

Sign each Application for Payment and certify to the City that:

- A. The data supporting the Application for Payment is accurate and the Work has progressed to the point indicated;
- B. To the best your knowledge and belief, the Work accords with the Contract Documents;
- C. You are entitled to payment in the amount certified; and
- D. You have paid all sums the City paid you to reimburse subcontractor work to the subcontractors performing the work without any retention, withholding or back charge.

8-3.2 Progress Payments.

8-3.2.1 Conditions to Progress Payments. Submit your Application for Payment to the Engineer using City of Irvine Certified Invoice for Progress Payment Form, once a month. Submit invoices within fifteen (15) days from the end of each month. This estimate must include the value of the total amount of the work you complete during the calendar month preceding that in which the estimate is made.

Without limitation to any other provisions of the Contract Documents, the following precede a proper submission and the Engineer's approval of each Application for Payment:

- A. Submit the detailed Schedule per 8-2.1;
- B. Submit the certification required in 8-3.1.1;

- C. Submit conditional releases of stop notices, if any, and bond rights upon progress payment, complying with California Civil Code § 8132, for all Work performed during the time covered by the current Application for Payment, which you, your subcontractors of every tier, and all material suppliers to each sign, and forms of unconditional release of stop notice and bond rights upon progress payment, complying with California Civil Code § 8134, for all Work performed during the time covered by the previous Application for Payment that you, your subcontractors of every tier and all material suppliers each sign;
- D. Maintain Record Drawings as required by the Contract Documents;
- E. Submit monthly and daily reports as required by the Contract Documents;
- F. Submit scheduling information and update the Construction Schedule as required by the Contract Documents regarding preparing or updating schedule information;
- G. Submit certified payroll records as required by the Contract Documents;
- H. Comply with all requirements for submitting documents or performing conditions that, by the terms of the Contract Documents, constitute conditions to your right to receive payment for Work performed.

8-3.2.2 Payments by City. Pursuant to California Public Contract Code § 20104.50, the City will pay an undisputed, properly submitted Application for Payment within thirty (30) days after the Engineer receives it, based on 90 percent of its value determined pursuant to 8-2.1:

- A. The portion of the Work permanently installed;
- B. Plus the value of materials delivered on the ground or in storage as approved by City pursuant to 8-3.8;
- C. Less the aggregate of previous payments; and
- D. Less any other withholdings authorized by the Contract Documents.

8-3.2.3 Rejection by City. The City will return any Application for Payment it disputes or determines is improper and unsuitable for payment not more than seven (7) days after receiving it, together with a written explanation of why the payment request was rejected. The City's failure to either timely reject an Application for Payment or specify grounds for rejection does not waive of any of its rights. Correct and resubmit rejected Applications for Payment within seven (7) days after receiving them.

8-3.3 Final Payment.

8-3.3.1 Retention.

Pursuant to 8-2.1, the City will also withhold, in addition to withholding permitted by 8.37, a sum equal to 5 percent of all sums otherwise due you as progress payments from each progress payment ("Retention") and hold it until it is due as described here.

8-3.3.2 Conditions to Final Payment. Submit your Application for Final Payment using the City of Irvine Certified Invoice for Progress Payment Form, before you request a final inspection of the Work according to 5-8. Include with the Application for Final Payment the following:

- A. An affidavit that payrolls, materials and equipment bills and other project debts for which the City or the City's property or funds might be liable, have been paid or satisfied;
- B. Your certification required by 8-3.1;

- C. Surety's consent to Final Payment;
- D. A certificate evidencing that the insurance required by the Contract Documents is in force;
- E. Conditional Waiver and Release Upon Final Payment in the form required by California Civil Code § 8136, executed by you, all subcontractors of every tier and all material suppliers, covering the final payment period;
- F. Unconditional Waiver and Release Upon Progress Payment in the form required by California Civil Code § 8134, executed by you, all subcontractors of every tier and all material suppliers of each, covering the previous payment period;
- G. All Record Documents including, without limitation, complete and accurate record drawings which you kept up to date during performance of the Work;
- H. Documentation that you have inspected, tested and adjusted the performance of every system or facility of the Work to ensure that it complies with the terms of the Contract Documents;
- I. Four (4) copies of all warranties from vendors and subcontractors, operation and maintenance manuals, instructions and related agreements and equipment certifications and similar documents;
- J. Releases of rights and claims relating to patents and trademarks required by the Contract Documents; and
- K. Any other documents or information required by the Contract Documents as a condition of Final Payment or Final Completion.

8-3.3.3 Retention Release. Pursuant to Public Contract Code § 7107, within sixty (60) days after the City delivers the Notice of Completion, it will release the Final Payment, including Retention withheld, subject to the City's right to withhold 150% of any disputed amounts.

8-3.3.4 Disputed Amounts. Pursuant to California Public Contract Code § 7107, the City may deduct and withhold from the Final Payment due under 8-3.3.3, up to 150% of any disputed amounts including amounts to protect the City against any loss caused or threatened as a result of your failure to perform all obligations required as a condition of Completion and Final Payment. Alternatively, the City may elect, in its sole discretion, to accept the Work without correction or completion and adjust the Contract Price pursuant to the Contract Documents.

8-3.3.5 Acceptance of Final Payment. Accepting Final Payment constitutes a waiver of all your rights against the City to recover any loss excepting only those Claims you submitted as required by the Contract Documents before or at the time of Final Payment.

8-3.4 Miscellaneous.

8-3.4.1 Joint Payment. The City has the right, if it deems necessary in its sole discretion, to issue joint checks payable to you and to any subcontractor(s) of any tier. The joint check payees are solely responsible to allocate and disburse the joint payment funds. A payee's endorsement of the check constitutes its receipt of payee's payment. No joint check creates a contract between the City and a subcontractor of any tier, or any obligation from the City to a subcontractor or any third party rights against the City or the Engineer.

8-3.4.2 Withholding/Duty to Proceed. Paying, withholding or retaining all or part of a payment you claim is due to you does not relieve you of your obligations under the Contract Documents. Continue to perform the Work diligently regardless of the City's payment, withholding or retention of any payment. The City's good faith partial payment, withholding or retention of any disputed part of a payment,

whether correctly or incorrectly asserted, is not a breach of the Contract Documents and is not grounds for an adjustment of the Contract Price or Contract Time.

8-3.4.3 No Acceptance. The City's payment or its partial or entire use of the Work does not constitute approval or acceptance of all or any portion of the Work.

8-3.4.4 Contractor Payment Warranty. Submitting an Application for Payment constitutes your warranty that:

- A. Title to Work covered by an Application for Payment passes to the City either by integration into the construction or on receipt of your payment, whichever occurs first; and
- B. Work covered by previous Applications for Payment are free and clear of liens, stop notices, claims, security interests or encumbrances you or any other person imposes.

8-3.4.5 Corrections. An inaccuracy or error in any Application for Payment does not release you from the error or from losses arising from the Work or from any obligation imposed by the Contract Documents. The City retains the right to subsequently correct any error made in any previously approved Application for Payment or progress payment issued by adjusting subsequent payments.

8-3.5 Payments By Contractor. Do not include in your Applications for Payment sums for any subcontractor's portion of the Work you do not intend to pay to that subcontractor. When you receive the City's payment, pay the subcontractor performing Work on the Project out of that payment for the portion of the Work the subcontractor is entitled to according to the terms of its contract with you and with applicable laws including, without limitation, California Public Contract Code § 7107.

Notwithstanding any City withholding pursuant to the terms of the Contract Documents, you remain responsible for promptly satisfying from your own funds, sums due all subcontractors who have performed Work included in your Application for Payment. Require each subcontractor, by appropriate agreement, to pay its subcontractors and material suppliers in a similar manner. The City is not obligated to pay or to be responsible in any way for paying a subcontractor of any tier or material supplier.

8-3.6 Payment Withheld.

8-3.6.1 Withholding by City. In addition to any other amounts the City may have the right to retain under the Contract Documents, it may withhold a sufficient amount of any payment otherwise due you as the City, in its sole discretion, determines is necessary to cover actual or threatened loss due to any of the following:

- A. Third-Party Claims. Third-party claims or stop notices filed or reasonable evidence indicating the probable filing of claims or stop notices;
- B. Defective Work. Defective Work not remedied;
- C. Nonpayment. Failure to make proper payments to your subcontractors for services, labor, materials or equipment;
- D. Inability to Complete. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Sum or within the Contract Time;
- E. Violation of Applicable Laws. Failure or failure of your subcontractors to comply with applicable laws or lawful orders of governmental authorities;
- F. Penalty. Any claim or penalty asserted against the City because you failed to comply with applicable laws or lawful orders of governmental authorities including, without limitation, labor laws;

- G. Failure to Meet Contract Time. Any damages which may accrue because you failed to meet the Construction Schedule or to perform within the Contract Time;
- H. Setoff. Any reason specified elsewhere in the Contract Documents as grounds for a withholding offset or set off or that would legally entitle the City to a set-off or recoupment;
- I. Consultant Services. Additional professional, consultant or inspection services required because you failed to comply with the Contract Documents;
- J. Liquidated Damages. Liquidated damages assessed against you;
- K. Materials. Materials the City ordered pursuant to the Contract Documents;
- L. Damages. Loss you, or a subcontractor to the City, or separate contractors, or any other person or entity under contract to the City caused;
- M. Clean Up. Clean up the City performed that is chargeable to you pursuant to the Contract Documents;
- N. Employee Benefits. Failure to pay contributions due to employee benefits funds pursuant to any applicable collective bargaining agreement or trust agreement;.
- O. Required Documents. Failure to submit on a timely basis, proper and sufficient documentation required by the Contract Documents including, without limitation, Construction Schedule updates, 'look ahead' schedules, Submittals, Schedules of Values, information on Subcontractors, Change Orders, certifications and other required reports or documentation;
- P. Other Breach. A breach of any obligation or provision of the Contract Documents.

8-3.6.2 Release of Withholding. If the City determines, in its sole discretion, that you have removed the above-mentioned grounds for withholding and have paid, credited or otherwise satisfied all losses incurred or threatened, the City will pay you the amounts withheld because of them.

8-3.6.3 Application of Withholding. The City may apply sums withheld pursuant to 8-3.6.1 to pay any loss or threatened loss the City determines, in its sole discretion, is appropriate. It may make these payments without a prior judicial determination of its actual rights regarding the loss. You agree and designate the City as your agent for this purpose and agree that these payments are payments made to you by the City under the Contract. The City is not liable to you for these payments made in good faith. The City will give you an accounting of funds paid on your behalf. Alternatively, the City, in its sole discretion, may exercise its right to adjust the Contract Price as provided in the Contract Documents.

8-3.6.4 Continuous Performance. If the City pays the undisputed portion, if any, of funds withheld in good faith, you must continue to perform the Work without interruption while any disputes or disagreements with the City are pending.

8-3.7 Substitution of Securities. At your request, the City will pay funds withheld from progress payments pursuant to the requirements of Public Contract Code § 22300, if you deposit in escrow with a bank acceptable to the City, securities eligible for the investment of state funds under Government Code § 16430, or bank or savings and loan certificates of deposit, on the following conditions:

- A. Pay the City and the Escrow Agent for the escrow deposit.
- B. The value of securities or certificates of deposit placed in escrow is at least equivalent to the retention amounts owed you pursuant to this section.
- C. You enter into an escrow agreement satisfactory to the City that includes provisions governing,

among other things;

1. Value of securities deposited;
2. Powers of attorney or other documents required to transfer the securities deposited;
3. Cash conversion to fund defaults including but not limited to, terminating your control over the Work, stop notices legally filed, liquidated damages assessed or other amounts retained under the Contract ;
4. Decreased value of securities on deposit; and
5. Termination of escrow when the Contract is complete.

D. Obtain the surety's written consent to the agreement.

8-3.8 Delivered Materials. The City may make, at its discretion, payments for materials or equipment not incorporated into the Work but delivered on the ground at the site that you stored there or stored off-site under the City's control. The City will only consider these payments if you submit satisfactory evidence that you have title to the material or equipment, that the material or equipment will be used in the Work and that the material is satisfactorily stored, protected and insured and other procedures are in place, acceptable to the City, to protect the City's interests. To consider this payment, materials or equipment stored off-site must, in addition to the above requirements and unless otherwise specifically approved by the City in writing, be stored in a bonded warehouse, fully insured, and available to the City for inspection. The City has sole discretion to determine the amount of material and equipment stored on the site at any given time.

8-3.9 Mobilization

8-3.9.1 General. Mobilization is preliminary work and operations that include but are not limited to, those necessary to move personnel, equipment, materials and incidentals to the Work site for the Work and for all other necessary work and operations or costs incurred including bonds, insurance and financing before beginning work on Contract items.

Mobilization also includes the cost, time and labor to move necessary construction equipment to and from the job site, supervisory time on the job by your personnel to keep the site safe and all other related work required for all non-working days during construction. Secure adequate storage for equipment and materials.

Have as your agent, a competent English speaking superintendent who can read and thoroughly understand the plans, specifications, other related documents and directions from the City's Representative on-site at all times.

8-3.9.2 Measurement and Payment. Mobilization is eligible for partial payment if the Contract includes a bid item for it. Payment for mobilization is at the Lump-Sum (LS) price bid and includes obtaining and paying for all permits and business licenses as required by the City, state and other agencies. The City will waive its permit fee. Comply with the requirements specified by each license or permit. The City will not pay for mobilization until you submit a Construction Schedule that has been reviewed and accepted and is current. The City will make progress payments for this item according to the percent of the project completed and will include mobilization and administration costs for the entire contract period including the construction schedule required in these Specifications. The City will make payments based on the following:

- A. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 5 percent or more of the original contract amount, 50 percent of the contract item price for mobilization or 5 percent of the original contract amount, whichever is less, will be included in the estimate for payment.

- B. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 10 percent or more of the original contract amount, the total amount earned for mobilization is 75 percent of the mobilization contract item price or 7.5 percent of the original contract amount, whichever is less, will be included in the estimate for payment.
- C. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 20 percent or more of the original contract amount, the total amount earned for mobilization is 95 percent of the mobilization contract item price or 9.5 percent of the original contract amount, whichever is less, will be included in the estimate for payment.
- D. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 50 percent or more of the original contract amount, the total amount earned for mobilization is 100 percent of the mobilization contract item price or 10 percent of the original contract amount, whichever is less, will be included in the estimate for payment.
- E. When all the Work is complete, the City will pay any amount bid for mobilization exceeding 10 percent of the original contract amount.

8-4 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the Engineer's opinion, it is not practical to remove and replace the Work, the Engineer will specify one of the following remedies:
 - 1. The defective Work may remain but the unit price will be adjusted;
 - 2. The defective Work will be partially repaired at the Engineer's instructions and the unit price will be adjusted;
- C. Individual Specification sections may modify these options or may require a specific formula or percentage price reduction.
- D. The Engineer's authority to assess the defect and make a payment adjustment is final.

8-5 PROMPT PAYMENT. In addition to requirements specified elsewhere, the following also apply: Subsection (f) of § 20104.50 of the Public Contract Code, Article 1.7 of Part 3 of Division 2. Timely progress payments; legislative intent; interest; payment requests:

- A. It is the intent of the Legislature in enacting this section to require all local governments to pay their contractors on time so that these contractors can meet their obligations. In requiring local governments to pay promptly, the Legislature finds that prompt payment of outstanding receipts is not merely a municipal affair, but is a matter of statewide concern.
- B. It is the intent of the Legislature in enacting this article to regulate public policy relating to prompt payment of local governments' outstanding receipts. The Legislature finds that all government officials, including those in local government, must set a standard of prompt payment that any business in the private sector that may contract for services should look to for guidance.
- C. Any local agency failing to make any progress payment within 30 days after receiving an undisputed and properly submitted payment request from a contractor on a construction contract must pay interest to the contractor equivalent to the legal rate in subdivision (a) of § 685.010 of the Code of Civil Procedure.
- D. Upon receiving a payment request, each local agency must comply with both of the following:

1. The local agency must review each payment request as soon as possible after receipt to determine whether the payment request is proper payment request.
 2. The local agency must return to the contractor as soon as possible but not later than seven days after receipt, any payment request determined not to be a proper payment request. A document setting out why the payment request is not proper must accompany any request returned pursuant to this paragraph.
- E. The number of days available to a local agency to make a payment without incurring interest under this section is reduced by the number of days by which it exceeds the seven-day return requirement in paragraph (2) of subsection (c).
- F. For purposes of this article:
1. A “local agency” includes, but is not limited to, a city, including a charter city, a county, a city and county and any public entity subject to this part.
 2. A “progress payment” includes all payments due contractors, except that portion of the final payment designated by the contract as retention.
 3. A payment request is properly executed if funds are available to pay it and payment is not delayed by an audit inquiry by the local agency’s financial officer.
- G. Each local agency must require that this article, or a summary of it, is included in the terms of any contract subject to this article.

8-6 CLAIMS. Any claims you submit against the City for Work covered by this Contract for \$375,000 or less is subject to the procedures specified in Public Contract Code § 20104, *et seq.*

8-6.1 Claims Submission and Documentation.

- A. You may submit a claim concerning a matter properly noticed according to the requirements of this Contract.
- B. Furnish all claim documentation as specified here no later than thirty (30) days after the event or condition causing the claim has been resolved. If you do not furnish the required claim documentation within this time, you waive your right to compensation for the claim.
- C. Furnish three (3) certified copies of the required claim documentation. The documentation must be complete when furnished. The City will evaluate your claim based on City project records and the documentation you provide.
- D. Claim documentation must conform to Generally Accepted Accounting Principles and be in the following format:
 1. General Introduction
 2. General Background Discussion
 3. Issues
 4. Index of Issues (listed numerically)
 5. For each issue (begin each issue on a new page)
 - a. Background
 - b. Chronology
 - c. Your position (why you believe the City is liable)
 - d. Supporting documentation of merit or entitlement
 - e. Supporting documentation of damages
 6. All critical path method schedules, both as-planned, monthly updates, schedule revisions, and as-built together with computer disks of all schedules related to the claim.

7. Productivity Exhibits, if appropriate
 8. Summary of Issues and Damages
- E. City by reference, photocopy or explanation, supporting documentation relevant to each issue. Supporting documentation may include, but is not be limited to, general conditions, general requirements, technical specifications, drawings, correspondence, conference notes, shop drawings and submittals, shop drawing logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary CPM schedules or time impact analyses, photographs, technical reports, requests for information, field instructions and all other related records that support your claim.
 - F. Cite, photocopy or explain supporting documentation of damages for each issue. Supporting documentation may include, but shall not be limited to, all documents related to preparing and submitting the bid, certified, detailed labor records including labor distribution reports, material and equipment procurement records, construction equipment ownership cost or rental records, subcontractor or vendor files and cost records, service cost records, purchase orders, invoices, project as-planned and as-built cost records, general ledger records, variance reports, accounting adjustment records and any other accounting materials that support your claim.
 - G. Have each copy of the claim documentation certified by a responsible office of yours according to the requirements of the Contract Documents.
 - H. If you cannot support any part of the claim and it is determined that this inability is due to the falsity of the certification or misrepresentation of fact or fraud on your part, you are liable to the City as provided under California Government Code § 12650 *et. seq.*
 - I. Your claims must be accompanied by a notarized certificate containing the following language:
Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government code § 12650 *et. seq.*, the undersigned,

(Name) _____

(Title) _____

(Company) _____

hereby certifies that the claim for the additional compensation and time, if any, made here for the work on this Contract is a true statement of the actual costs incurred and time sought, and is fully documented and supported under the Contract between the parties.

Dated _____

Signature _____

Subscribed and sworn before me this _____ day

of _____

Notary Public

My Commissions expires _____

Failing to submit the notarized certificate is cause for denying the claim.

SECTION 01 10 00 - SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: Turtle Rock Community Park Accessibility Improvements
- B. Owner's Name: City of Irvine.
- C. Project Manager's Name: Reza Jafari, Senior Project Manager.
- D. Architect's Name: RM Architecture.
- E. The Project consists of ADA related improvements at Turtle Rock Community Park located at 1 Sunnyhill, Irvine, CA 92603, including upgrades to the public service counters, installation of new chair lifts and handrails, replacement of door hardware, and reconstruction of the restrooms and other items not mentioned here, but are required by the Plans and Special Provisions.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract.

1.03 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is shown on Plans and specified in Section 02 41 00.
- B. Scope of alterations work is shown on Plans.
- C. Renovate the following areas, complete including operational mechanical and electrical work and finishes:
 - 1. Turtle Rock Nature Center Building – 1 Sunnyhill, Irvine, CA 92603
 - 2. Turtle Rock Community Center Building – 1 Sunnyhill, Irvine, CA 92603
- D. Refinish all surface areas of the following, as specified:
 - 1. Refer to Special Provisions.
- E. Plumbing: Alter existing system and add new construction, keeping existing in operation.
- F. HVAC: Protect in place, keeping existing in operation.
- G. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation.
- H. Fire Suppression Sprinklers: Protect in place, keeping existing in operation.
- I. Fire Alarm: Protect in place, keeping existing in operation.
- J. Telephone: Protect in place, keeping existing in operation.
- K. Security System: Protect in place, keeping existing in operation.

1.04 WORK BY CITY – NOT APPLICABLE

1.05 CITY OCCUPANCY

- A. City intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Cooperate with City to minimize conflict and to facilitate City's operations.
- C. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
- D. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.06 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Plans.
- B. Arrange use of site and premises to allow:
 - 1. City occupancy.
 - 2. Work by Others.
 - 3. Work by City.
 - 4. Use of site and premises by the public.
- C. Provide access to and from site as required by law and by City:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
- D. Existing building spaces may not be used for storage.

1.07 WORK SEQUENCE

- A. The order of work described below is not intended to include all work items necessary to complete a particular construction stage and serves to only summarize the order of major work items. The following Phased Milestones sets forth the project's schedule requirements applicable to completion of construction per the duration of working days specified in the contract.

MILESTONE SCHEDULE

- B. Contractor is alerted that Day is to mean "Working Day." Contractor shall be responsible to complete the following Milestone schedule work within the prescribed number of working days. Failure to do so will result in the Contractor paying liquidated damages in the amount indicated in the Contract Documents per "calendar day" for Phase One, Phase Two or Phase Three milestone that the work is incomplete beyond the working days allowed for that particular phased milestone. Completion of work is herein defined as follows: All milestone work specified shall be fully completed per the construction plans and specification and accepted by the City of Irvine.

Phase I Milestone: Nature Center Building – 30 Working Days

The City has identified the following as the Phase I Milestone:

- 1. Demolition for all construction items at the Nature Center.
- 2. Complete construction and installation of all final improvements at the Nature Center Building.

The above Phase I Milestone work shall be completed, including Building & Safety approval, by 30 working days from date stated in the Contract Notice to Proceed.

All restroom improvements must be completed at the Nature Center and restrooms shall be opened to the public prior to beginning any work in the Community Center restrooms.

Phase II Milestone: Community Center Building – 80 Working Days

The City has identified the following as the Phase II Milestone:

1. Do not begin any work in the Community Center restrooms, including demolition, until all restroom improvements at the Nature Center are complete and restrooms are open to the public.
2. Demolition for all construction items at the Community Center.
3. Complete construction and installation of all final improvements at the Community Center Building.

The above Phase II Milestone work shall be completed, including Building and Safety approval and completion of punchlist items by: 80 working days from date stated in the Contract Notice to Proceed.

- C. Coordinate construction schedule and operations with City Project Manager.
- D. Coordinate construction schedule and operations with building occupants.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 41 00 - REGULATORY REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY OF REFERENCE STANDARDS

- A. Regulatory requirements applicable to this project are the following:
- B. 28 CFR 35 - Nondiscrimination on the Basis of Disability in State and Local Government Services; Final Rule; Department of Justice; current edition.
- C. 28 CFR 36 - Nondiscrimination by Public Accommodations and in Commercial Facilities; Final Rule; Department of Justice; current edition.
- D. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.
- E. 49 CFR 37 - Transportation Services for Individuals with Disabilities (ADA); current edition.
- F. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- G. FED-STD-795 - Uniform Federal Accessibility Standards (UFAS); 1988.
- H. 29 CFR 1910 - Occupational Safety and Health Standards; current edition.
- I. State of California amendments to some or all of the following.
- J. City of Irvine amendments to some or all of the following.
- K. Zoning Codes.
- L. ICC A117.1 - Accessible and Usable Buildings and Facilities.
- M. ICC (IFC) - International Fire Code.
- N. NFPA 1 - Fire Code.
- O. NFPA 101 - Life Safety Code.
- P. ICC (IBC) - International Building Code.
- Q. ICC (IRC) - International Residential Code for One- and Two-Family Dwellings.
- R. NFPA 5000 - Building Construction and Safety Code.
- S. CBC (CBC) Building Code.
- T. ICC (IPC) - International Plumbing Code.
- U. IAPMO (UPC) - Uniform Plumbing Code.
- V. CPC (CPC) Plumbing Code.
- W. ICC (IMC) - International Mechanical Code.
- X. IAPMO (UPC) - Uniform Plumbing Code.
- Y. CMC (CMC) California Mechanical Code.
- Z. ICC (IFGC) - International Fuel Gas Code.
- AA. Fuel Gas Code.
- AB. ICC (IPSDC) - International Private Sewage Disposal Code.
- AC. Private Sewage Disposal Code.
- AD. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- AE. Elevator Code.
- AF. ICC (IECC) - International Energy Conservation Code.
- AG. Building Energy Efficiency Standards.
- AH. ICC (IPMC) - International Property Maintenance Code.

AI. California Green Building Standards Code.

1.02 RELATED REQUIREMENTS

A. Section 01 40 00 - Quality Requirements.

1.03 QUALITY ASSURANCE

A. Designer Qualifications: Where delegated engineering design is to be performed under the construction contract provide the direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 45 33 - CODE-REQUIRED SPECIAL INSPECTIONS

PART 1 GENERAL

Refer to the City of Irvine – Special Inspection Manual and Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 57 21 - INDOOR AIR QUALITY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Construction procedures to promote adequate indoor air quality after construction.
- B. Building flush-out after construction and before occupancy.
- C. Testing indoor air quality before commencement of construction; existing building areas only.
- D. Testing indoor air quality after completion of construction.
- E. Testing air change effectiveness after completion of construction.
- F. Testing smoking room ventilation and isolation.

1.02 PROJECT GOALS

- A. Dust and Airborne Particulates: Prevent deposition of dust and other particulates in HVAC ducts and equipment.
 - 1. Cleaning of ductwork is not contemplated under this Contract.
 - 2. Contractor shall bear the cost of cleaning required due to failure to protect ducts and equipment from construction dust.
 - 3. Establish condition of existing ducts and equipment prior to start of alterations.
- C. Airborne Contaminants: Procedures and products have been specified to minimize indoor air pollutants.
 - 1. Furnish products meeting the specifications.
 - 2. Avoid construction practices that could result in contamination of installed products leading to indoor air pollution.
- D. Environmental Tobacco Smoke Control: Smoking rooms have been designed with direct exhaust to outdoors, no recirculated air, impermeable partitions from floor to structure above, and negative pressure of at least 0.03 inch wg (7 Pa).
- E. Residential Units Air Isolation: Units have been designed with impermeable party walls and sealed openings in walls and floors.

1.03 RELATED REQUIREMENTS

- B. Section 01 4000 - Quality Requirements: Testing and inspection services.
- C. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
- D. Section 23 4000 - HVAC Air Cleaning Devices: HVAC filters.
- E. Section 23 0593 - Testing, Adjusting, and Balancing for HVAC: Testing HVAC systems for proper air flow rates, adjustment of dampers and registers, and settings for equipment.
- F. Section 23 0130.51 - HVAC Air Duct Cleaning: Cleaning air ducts, equipment, and terminal units.

1.04 REFERENCE STANDARDS

- A. ASHRAE Std 52.2 - Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size; 2012, with 2015 amendments.
- B. ASHRAE Std 129 - Measuring Air-Change Effectiveness; 1997 (Reaffirmed 2002).
- C. ASTM D5149 - Standard Test Method for Ozone in the Atmosphere: Continuous Measurement by Ethylene Chemiluminescence; 2002 (Reapproved 2008).
- D. ASTM D5197 - Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology); 2009.
- E. ASTM E779 - Standard Test Method for Determining Air Leakage Rate by Fan Pressurization; 2010.

- F. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; California Department of Public Health; v1.1, 2010.
- G. EPA 600/4-90/010 - Compendium of Methods for the Determination of Air Pollutants in Indoor Air; April 1990.
- H. EPA 625/R-96/010b - Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air; Jan-99.
- I. SMACNA (OCC) - IAQ Guidelines for Occupied Buildings Under Construction; 2007.

1.05 DEFINITIONS

- A. Adsorptive Materials: Gypsum board, acoustical ceiling tile and panels, carpet and carpet tile, fabrics, fibrous insulation, and other similar products.
- B. Contaminants: Gases, vapors, regulated pollutants, airborne mold and mildew, and the like, as specified.
- C. Particulates: Dust, dirt, and other airborne solid matter.
- D. Wet Work: Concrete, plaster, coatings, and other products that emit water vapor or volatile organic compounds during installation, drying, or curing.

1.06 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Indoor Air Quality Management Plan: Describe in detail measures to be taken to promote adequate indoor air quality upon completion; use SMACNA (OCC) as a guide.
 - 1. Submit not less than 60 days before enclosure of building.
 - 2. Identify potential sources of odor and dust.
 - 3. Identify construction activities likely to produce odor or dust.
 - 4. Identify areas of project potentially affected, especially occupied areas.
 - 5. Evaluate potential problems by severity and describe methods of control.
 - 6. Describe construction ventilation to be provided, including type and duration of ventilation, use of permanent HVAC systems, types of filters and schedule for replacement of filters.
 - 7. Describe cleaning and dust control procedures.
- C. Interior Finishes Installation Schedule: Identify each interior finish that either generates odors, moisture, or vapors or is susceptible to adsorption of odors and vapors, and indicate air handling zone, sequence of application, and curing times.
- D. Duct and Terminal Unit Inspection Report.
- E. Air Contaminant Test Plan: Identify:
 - 1. Testing agency qualifications.
 - 2. Locations and scheduling of air sampling.
 - 3. Test procedures, in detail.
 - 4. Test instruments and apparatus.
 - 5. Sampling methods.
- F. Air Contaminant Test Reports: Show:
 - 1. Location where each sample was taken, and time.
 - 2. Test values for each air sample; average the values of each set of 3.
 - 3. HVAC operating conditions.
 - 4. Certification of test equipment calibration.
 - 5. Other conditions or discrepancies that might have influenced results.
- G. Ventilation Effectiveness Test Plan: Identify:
 - 1. Testing agency qualifications.
 - 2. Description of test spaces, including locations of air sampling.
 - 3. Test procedures, in detail; state whether tracer gas decay or step-up will be used.

4. Test instruments and apparatus; identify tracer gas to be used.
 5. Sampling methods.
- H. Ventilation Effectiveness Test Reports: Show:
1. Include preliminary tests of instruments and apparatus and of test spaces.
 2. Calculation of ventilation effectiveness, E.
 3. Location where each sample was taken, and time.
 4. Test values for each air sample.
 5. HVAC operating conditions.
 6. Other information specified in ASHRAE Std 129.
 7. Other conditions or discrepancies that might have influenced results.
- I. Smoking Room Test and Inspection Plan: Identify:
1. Testing agency qualifications.
 2. Description of test spaces, including locations of air sampling.
 3. Test procedures, in detail.
 4. Test instruments and apparatus; identify tracer gas to be used.
 5. Sampling methods.
- J. Smoking Room Test and Inspection Reports: Show:
1. Include preliminary tests of instruments and apparatus.
 2. Include inspection of membrane seals in test spaces.
 3. HVAC operating conditions.
 4. Location where each sample was taken, and time.
 5. Test values for each air sample.
 6. Other information specified in ASHRAE Std 129.
 7. Other conditions or discrepancies that might have influenced results.

1.07 QUALITY ASSURANCE

- A. Testing and Inspection Agency Qualifications: Independent testing agency having minimum of 5 years experience in performing the types of testing specified.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Low VOC Materials: See Section 01 6116.
- B. Low VOC Materials: See other sections for specific requirements for materials with low VOC content.
- C. Auxiliary Air Filters: MERV of 8, minimum, when tested in accordance with ASHRAE Std 52.2.

PART 3 EXECUTION

3.01 CONSTRUCTION PROCEDURES

- A. Prevent the absorption of moisture and humidity by adsorptive materials by:
1. Sequencing the delivery of such materials so that they are not present in the building until wet work is completed and dry.
 2. Delivery and storage of such materials in fully sealed moisture-impermeable packaging.
 3. Provide sufficient ventilation for drying within reasonable time frame.
- B. Begin construction ventilation when building is substantially enclosed.
- C. If extremely dusty or dirty work must be conducted inside the building, shut down HVAC systems for the duration; remove dust and dirt completely before restarting systems.
- D. When working in a portion of an occupied building, prevent movement of air from construction area to occupied area.
- E. Use of HVAC equipment and ductwork for ventilation during construction is not permitted:
1. Provide temporary ventilation equivalent to 1.5 air changes per hour, minimum.

2. Exhaust directly to outside.
 3. Seal HVAC air inlets and outlets immediately after duct installation.
- F. HVAC equipment and supply air ductwork may be used for ventilation during construction:
1. Operate HVAC system on 100 percent outside air, with 1.5 air changes per hour, minimum.
 2. Ensure that air filters are correctly installed prior to starting use; replace filters when they lose efficiency.
 3. Do not use return air ductwork for ventilation.
 4. Do not use return air ductwork for ventilation unless absolutely necessary.
 5. Seal return air inlets or otherwise positively isolate return air system to prevent recirculation of air; provide alternate return air pathways.
 6. Where return air ducts must be used for ventilation, install auxiliary filters at return inlets, sealed to ducts; use filters with at least the equivalent efficiency as those required at supply air side; inspect and replace filters when they lose efficiency.
- G. Do not store construction materials or waste in mechanical or electrical rooms.
- H. Prior to use of return air ductwork without intake filters clean up and remove dust and debris generated by construction activities.
1. Inspect duct intakes, return air grilles, and terminal units for dust.
 2. Clean plenum spaces, including top sides of lay-in ceilings, outsides of ducts, tops of pipes and conduit.
 3. Clean tops of doors and frames.
 4. Clean mechanical and electrical rooms, including tops of pipes, ducts, and conduit, equipment, and supports.
 5. Clean return plenums of air handling units.
 6. Remove intake filters last, after cleaning is complete.
- I. Do not perform dusty or dirty work after starting use of return air ducts without intake filters.
- J. Use other relevant recommendations of SMACNA (OCC) for avoiding unnecessary contamination due to construction procedures.

3.02 BUILDING FLUSH-OUT

- A. Contractor's Option: Either full continuous flush-out OR satisfactory air contaminant testing is required, not both.
- B. Perform building flush-out before occupancy.
- C. Do not start flush-out until:
1. All construction is complete.
 2. HVAC systems have been tested, adjusted, and balanced for proper operation.
 3. Cleaning of inside of HVAC ductwork, specified elsewhere, has been completed.
 4. Inspection of inside of return air ducts and terminal units confirms that cleaning is not necessary.
 5. New HVAC filtration media have been installed.
- D. Building Flush-Out: Operate all ventilation systems at normal flow rates with 100 percent outside air until a total air volume of 14,000 cubic feet per square foot (4500 cubic meters per square meter) of floor area has been supplied.
1. Obtain Owner's concurrence that construction is complete enough before beginning flush-out.
 2. Maintain interior temperature of at least 60 degrees F (15 degrees C) and interior relative humidity no higher than 60 percent.
 3. If additional construction involving materials that produce particulates or any of the specified contaminants is conducted during flush-out, start flush-out over.
 4. If interior spaces must be occupied prior to completion of the flush-out, supply a minimum of 25 percent of the total air volume prior to occupancy, and:

- a. Begin ventilation at least three hours prior to daily occupancy.
 - b. Continue ventilation during all occupied periods.
 - c. Provide minimum outside air volume of 0.30 cfm per square foot (0.0015 cu m/s/sq m) or design minimum outside air rate, whichever is greater.
- E. Install new HVAC filtration media after completion of flush-out and before occupancy or further testing.

3.03 AIR CONTAMINANT TESTING

- A. Contractor's Option: Either full continuous flush-out, or satisfactory air contaminant testing is required, not both.
- B. Perform air contaminant testing before starting construction, as base line for evaluation of post-construction testing.
- C. Perform air contaminant testing before occupancy.
- D. Do not start air contaminant testing until:
 - 1. All construction is complete, including interior finishes.
 - 2. HVAC systems have been tested, adjusted, and balanced for proper operation.
 - 3. Cleaning of inside of HVAC ductwork, specified elsewhere, has been completed.
 - 4. New HVAC filtration media have been installed.
- E. Indoor Air Samples: Collect from spaces representative of occupied areas:
 - 1. Collect samples while operable windows and exterior doors are closed, HVAC system is running normally as if occupied, with design minimum outdoor air, but with the building unoccupied.
 - 2. Collect samples from spaces in each contiguous floor area in each air handler zone, but not less than one sample per 25,000 square feet (2300 square meters); take samples from areas having the least ventilation and those having the greatest presumed source strength.
 - 3. Collect samples from height from 36 inches (915 mm) to 72 inches (1830 mm) above floor.
 - 4. Collect samples from same locations on 3 consecutive days during normal business hours; average the results of each set of 3 samples.
 - 5. Exception: Areas with normal very high outside air ventilation rates, such as laboratories, do not need to be tested.
 - 6. When retesting the same building areas, take samples from at least the same locations as in first test.
- F. Outdoor Air Samples: Collect samples at outside air intake of each air handler at the same time as indoor samples are taken.
- G. Analyze air samples and submit report.
- H. Air Contaminant Concentration Limits:
 - 1. Formaldehyde: Not more than 16.3 parts per billion.
 - 2. PM10 Particulates: Not more than 20 micrograms per cubic meter.
 - 3. Total Volatile Organic Compounds (TVOCs): Not more than 500 micrograms per cubic meter.
 - 4. Chemicals Listed in CAL (CDPH SM) Table 4-1, except Formaldehyde: Allowable concentrations listed in Table 4-1.
 - 5. Carbon Monoxide: Not more than 9 parts per million and not more than 2 parts per million higher than outdoor air.
 - 6. Carbon Dioxide: Measure in ppm, in relation to outdoor air ; not more than 700 ppm higher than outdoor air.
 - 7. Airborne Mold and Mildew: Measure in relation to outside air ; not higher than outside air.
 - 8. Regulated Pollutants: Measure in relation to outside air ; not more than contained in outside air.

- I. Air Contaminant Concentration Test Methods:
 - 1. Formaldehyde: ASTM D5197, EPA 625/R-96/010b Method TO-11A, or EPA 600/4-90/010 Method IP-6.
 - 2. Particulates: EPA 600/4-90/010 Method IP-10.
 - 3. Ozone: ASTM D5149.
 - 4. Total Volatile Organic Compounds (TVOC): EPA 625/R-96/010b Method TO-1, TO-15, or TO-17; or EPA 600/4-90/010 Method IP-1.
 - 5. Chemicals Listed in CAL (CDPH SM) Table 4-1, except Formaldehyde: ASTM D5197, or EPA 625/R-96/010b Method TO-1, TO-15, or TO-17.
 - 6. Carbon Monoxide: EPA 600/4-90/010 Method IP-3, plus measure outdoor air; measure in ppm; report both indoor and outdoor measurements.
- J. If air samples show concentrations higher than those specified, ventilate with 100 percent outside air and retest at no cost to Owner, or conduct full building flush-out specified above.

3.04 SMOKING ROOM INSPECTION AND TESTING

- A. Perform smoking room inspection and testing before occupancy.
- B. Do not begin testing until HVAC testing, adjusting, and balancing has been satisfactorily completed.
- C. Smoking room(s) have been designed to have an airtight sealed membrane; inspect membrane seal at the following locations and repair as required:
 - 1. Between partitions and floor structure.
 - 2. Between partitions and roof structure.
 - 3. Around pipes, conduits, and ducts passing through floors within sealed membrane.
- D. Test each smoking room for isolation and exhaust effectiveness by measuring pressure differential between smoking room and each adjacent space and vertical chase:
 - 1. With the smoking room doors closed, operate the exhaust system in normal manner.
 - 2. For each separate adjacent spaces, take pressure readings for 15 minutes, with minimum of one measurement every 10 seconds.
 - 3. The test is failed if the lowest pressure differential between the smoking room and an external space is less than 0.004 inches water gage (1 Pa), or if the average pressure differential is less than 0.02 inches water gage (5 Pa).
 - 4. Correct defects in the membrane seal. If seal is demonstrably correct, notify Engineer.
- E. Test each smoking room for isolation and exhaust effectiveness using procedures similar to those defined in ASHRAE Std 129.
 - 1. Take air samples in each adjacent space approximately 10 feet (3 m) from each side of smoking room.
 - 2. Take one air sample at least 30 feet (9 m) from each side of doorway to smoking room.
 - 3. Calibration: Test with door(s) to adjacent spaces open and exhaust not operating; using tracer gas step-up procedure, increase tracer gas concentration in smoking room to a level that is detectable at all sample locations in adjacent spaces.
 - 4. Test: Allow tracer gas concentration outside smoking room to dissipate; close door(s) but do not seal; operate exhaust normally; test using same procedure, tracer gas concentration, and sample locations.
 - 5. Acceptable Results: Not more than 1 percent of smoking room tracer gas concentration detectable at any sample location.

3.05 VENTILATION EFFECTIVENESS TESTING

- A. Perform ventilation effectiveness testing before occupancy.
- B. Do not begin ventilation effectiveness testing until:
 - 1. HVAC testing, adjusting, and balancing has been satisfactorily completed.
 - 2. Building flush-out or air contaminant testing has been completed satisfactorily.
 - 3. New HVAC filtration media have been installed.

- C. Test each air handler zone in accordance with ASHRAE Std 129.
- D. If calculated air change effectiveness for a particular zone is less than 0.9 due to inadequate balancing of the system, adjust, and retest at no cost to Owner.

END OF SECTION

SECTION 01 61 16 - VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for Indoor-Emissions-Restricted products.
- B. Requirements for VOC-Content-Restricted products.
- C. Requirement for installer certification that they did not use any non-compliant products.

1.02 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittal procedures.
- B. Section 01 3329.04 - Material Content Form: Form for reporting emissions and VOC content.
- C. Section 01 3329.07 - Prohibited Content Installer Certification: Form for certifying that no non-compliant products were used.
- D. Section 01 4000 - Quality Requirements: Procedures for testing and certifications.
- E. Section 01 5721 - Indoor Air Quality Controls: Procedures and testing.
- F. Section 01 6000 - Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.
- G. Section 07 9200 - Joint Sealants: Emissions-compliant sealants.

1.03 DEFINITIONS

- A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings.
 - 2. Interior adhesives and sealants, including flooring adhesives.
 - 3. Flooring.
 - 4. Composite wood.
 - 5. Products making up wall and ceiling assemblies.
 - 6. Thermal and acoustical insulation.
 - 7. Free-standing furniture.
 - 8. Other products when specifically stated in the specifications.
- B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings.
 - 2. Interior adhesives and sealants, including flooring adhesives.
 - 3. Wet-applied roofing and waterproofing.
 - 6. Other products when specifically stated in the specifications.
- C. Interior of Building: Anywhere inside the exterior weather barrier.
- D. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- E. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.
- F. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
 - 1. Concrete.
 - 2. Clay brick.
 - 3. Metals that are plated, anodized, or powder-coated.
 - 4. Glass.
 - 5. Ceramics.

6. Solid wood flooring that is unfinished and untreated..
7. Other products when specifically stated in the specifications.

1.04 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2005 (Reapproved 2013).
- C. BIFMA e3 - Furniture Sustainability Standard; Business and Institutional Furniture Manufacturers Association; 2012.
- D. BIFMA M7.1 - Standard Test Method for Determining VOC Emissions; Business and Institutional Furniture Manufacturers Association; 2011.
- E. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; California Department of Public Health; v1.1, 2010.
- F. CARB (ATCM) - Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products; California Air Resources Board; current edition.
- G. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2007.
- H. CHPS (HPPD) - High Performance Products Database; Current Edition at www.chps.net/.
- I. CRI (GLP) - Green Label Plus Testing Program - Certified Products; www.carpet-rug.org; current edition.
- J. GreenSeal GS-36 - Adhesives for Commercial Use; 2013.
- K. SCAQMD 1113 - South Coast Air Quality Management District Rule No.1113; current edition.
- L. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition.
- M. SCS (CPD) - SCS Certified Products; current listings at www.scs-certified.com.
- N. UL (GGG) - GREENGUARD Gold Certified Products; current listings at <http://http://productguide.ulenvironment.com/QuickSearch.aspx>.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.
- C. Installer Certifications Regarding Prohibited Content: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of his products, or 2) that such products used comply with these requirements.

1.06 QUALITY ASSURANCE

- A. Indoor Emissions Standard and Test Method: CAL (CDPH SM), using Standard Private Office exposure scenario and the allowable concentrations specified in the method, and range of total VOC's after 14 days.
 1. Wet-Applied Products: State amount applied in mass per surface area.
 2. Paints and Coatings: Test tinted products, not just tinting bases.
 3. Evidence of Compliance: Acceptable types of evidence are the following;
 - a. Current UL (GGG) certification.
 - b. Current SCS (CPD) Floorscore certification.
 - c. Current SCS (CPD) Indoor Advantage Gold certification.
 - d. Current listing in CHPS (HPPD) as a low-emitting product.

- e. Current CRI (GLP) certification.
 - f. Test report showing compliance and stating exposure scenario used.
- 4. Product data submittal showing VOC content is NOT acceptable evidence.
- 5. Manufacturer's certification without test report by independent agency is NOT acceptable evidence.
- B. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
 - b. Certification by manufacturer that product complies with requirements.
- C. Composite Wood Emissions Standard: CARB (ATCM) for ultra-low emitting formaldehyde (ULEF) resins.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current SCS "No Added Formaldehyde (NAF)" certification; www.scs-certified.com.
 - b. Report of laboratory testing performed in accordance with requirements.
 - c. Published product data showing compliance with requirements.
 - d. Certification by manufacturer that product complies with requirements.
- D. Furnishings Emissions Standard and Test Method: BIFMA e3 Sections 7.6.1 and 7.6.2, tested in accordance with BIFMA M7.1.
 - 1. Evidence of Compliance:
 - a. Test report showing compliance and stating exposure scenario used.
- E. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. Indoor-Emissions-Restricted Products: Comply with Indoor Emissions Standard and Test Method, except for:
 - 1. Composite Wood, Wood Fiber, and Wood Chip Products: Comply with Composite Wood Emissions Standard or contain no added formaldehyde resins.
 - 2. Furnishings: Comply with Furnishings Emissions Standard and Test Method.
 - 3. Inherently Non-Emitting Materials.
- C. VOC-Content-Restricted Products: VOC content not greater than required by the following:
 - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
 - 2. Aerosol Adhesives: GreenSeal GS-36.
 - 3. Joint Sealants: SCAQMD 1168 Rule.
 - 4. Paints and Coatings: Each color; most stringent of the following:
 - a. 40 CFR 59, Subpart D.
 - b. SCAQMD 1113 Rule.
 - c. CARB (SCM).
 - 5. Wet-Applied Roofing and Waterproofing: Comply with requirements for paints and coatings.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.

- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

END OF SECTION

SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition , except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.
- G. Starting of systems and equipment.
- H. Demonstration and instruction of Owner personnel.
- I. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- J. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures , Electronic document submittal service.
- C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
- D. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- E. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.
- F. Section 01 5100 - Temporary Utilities: Temporary heating, cooling, and ventilating facilities.
- G. Section 01 7419 - Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
- H. Section 01 7610 - Temporary Protective Coverings: Materials for protection of installed work.
- I. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.
- J. Section 01 7900 - Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections
- K. Section 02 4100 - Demolition: Demolition of whole structures and parts thereof; site utility demolition.
- L. Section 02 8400 - Polychlorinate Biphenyl (PCB) Remediation: Removal of equipment containing substances regulated under the Federal Toxic Substances Control Act (TSCA), including but not limited to PCB- and mercury-containing equipment.
- M. Section 07 8400 - Firestopping.
- N. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.
 - 2. Limitations on cutting structural members.

1.03 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
 - 2. Identify demolition firm and submit qualifications.
 - 3. Include a summary of safety procedures.
- D. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
 - 6. Include in request:
 - a. Identification of Project.
 - b. Location and description of affected work.
 - c. Necessity for cutting or alteration.
 - d. Description of proposed work and products to be used.
 - e. Alternatives to cutting and patching.
 - f. Effect on work of Owner or separate Contractor.
 - g. Written permission of affected separate Contractor.
 - h. Date and time work will be executed.
- E. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 QUALIFICATIONS

- A. For demolition work, employ a firm specializing in the type of work required.
 - 1. Minimum of three (3) years of documented experience.
- B. For survey work, employ a land surveyor registered in the State in which the Project is located and acceptable to Engineer. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.
- C. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in the State in which the Project is located.
- D. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.06 PROJECT CONDITIONS

- A. Use of explosives is not permitted.
- B. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- C. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
 - 1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.

2. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.
- D. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
 1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
 2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
 3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.
- E. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
 1. Pest Control Service: Weekly treatments.
- F. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

1.07 COORDINATION

- A. See Section 01 1000 for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements , with provisions for accommodating items installed later.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- H. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.

- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Engineer four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of examination, preparation and installation procedures.
 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Engineer, Owner, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Engineer of any discrepancies discovered.
- C. Owner will locate and protect survey control and reference points.
- D. Contractor shall locate and protect survey control and reference points.
- E. Control datum for survey is that established by Owner provided survey.
- F. Control datum for survey is that indicated on Drawings.
- G. Control datum for survey is TBD.
- H. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- I. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.
- K. Utilize recognized engineering survey practices.
- L. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- M. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 2. Grid or axis for structures.
 3. Building foundation, column locations, ground floor elevations.

- N. Periodically verify layouts by same means.
- O. Maintain a complete and accurate log of control and survey work as it progresses.
- P. On completion of foundation walls and major site improvements, prepare a certified survey illustrating dimensions, locations, angles, and elevations of construction and site work.

3.05 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as shown.
 - 2. Report discrepancies to Engineer before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
 - 2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 - 2. Remove items indicated on drawings.
 - 3. Relocate items indicated on drawings.
 - 4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.

2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. See Section 01 1000 for other limitations on outages and required notifications.
 - c. Provide temporary connections as required to maintain existing systems in service.
 4. Verify that abandoned services serve only abandoned facilities.
 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Engineer.
 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Engineer review and request instructions.
 4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 1. Complete the work.
 2. Fit products together to integrate with other work.

3. Provide openings for penetration of mechanical, electrical, and other services.
 4. Match work that has been cut to adjacent work.
 5. Repair areas adjacent to cuts to required condition.
 6. Repair new work damaged by subsequent work.
 7. Remove samples of installed work for testing when requested.
 8. Remove and replace defective and non-conforming work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
 - E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
 - F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
 - G. Restore work with new products in accordance with requirements of Contract Documents.
 - H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
 - I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
 - J. Patching:
 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 2. Match color, texture, and appearance.
 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.08 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.09 PROTECTION OF INSTALLED WORK

- A. See Section 01 7610 for temporary protective covering materials.
- B. Protect installed work from damage by construction operations.
- C. Provide special protection where specified in individual specification sections.
- D. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- E. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- F. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- G. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.

- H. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- I. Prohibit traffic from landscaped areas.
- J. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.10 SYSTEM STARTUP

- A. Coordinate with requirements of Section 01 9113 - General Commissioning Requirements.
- B. Coordinate schedule for start-up of various equipment and systems.
- C. Notify Engineer and owner seven days prior to start-up of each item.
- D. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- E. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- F. Verify that wiring and support components for equipment are complete and tested.
- G. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- H. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- I. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.11 DEMONSTRATION AND INSTRUCTION

- A. See Section 01 7900 - Demonstration and Training.
- B. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- D. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- E. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.
- F. Perform instruction in a classroom environment.
- G. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- H. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- I. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

3.12 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.
- B. Testing, adjusting, and balancing HVAC systems: See Section 23 0593 - Testing, Adjusting, and Balancing for HVAC.

3.13 FINAL CLEANING

- A. Owner will provide comprehensive cleaning after final acceptance.
- B. Execute final cleaning prior to final project assessment.

1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
- C. Use cleaning materials that are nonhazardous.
- D. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- E. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- F. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- G. Clean filters of operating equipment.
- H. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, drainage systems, and all other areas.
- I. Clean site; sweep paved areas, rake clean landscaped surfaces.
- J. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- K. Clean Owner-occupied areas of work.

3.14 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 1. Provide copies to Engineer.
 2. Provide copies to Owner.
 3. Provide copies to Engineer and Owner.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Engineer when work is considered ready for Engineer's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Engineer's Substantial Completion inspection.
- E. Owner will occupy all of the building as specified in Section 01 1000.
- F. Conduct Substantial Completion inspection and create Final Correction Punch List containing Engineer's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Engineer.
- G. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- H. Accompany Project Coordinator on Contractor's preliminary final inspection.
- I. Notify Engineer when work is considered finally complete and ready for Engineer's Substantial Completion final inspection.
- J. Complete items of work determined by Engineer listed in executed Certificate of Substantial Completion.

3.15 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- D. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration:
 - 1. Aluminum and plastic beverage containers.
 - 2. Corrugated cardboard.
 - 3. Wood pallets.
 - 4. Clean dimensional wood : May be used as blocking or furring.
 - 5. Land clearing debris, including brush, branches, logs, and stumps; see Section 31 1000 - Site Clearing for use options.
 - 6. Concrete : May be crushed and used as riprap, aggregate, sub-base material, or fill.
 - 7. Bricks : May be used on project if whole, or crushed and used as landscape cover, sub-base material, or fill.
 - 8. Concrete masonry units : May be used on project if whole, or crushed and used as sub-base material or fill.
 - 9. Precast concrete panels : May be used for erosion control or landscape features.
 - 10. Asphalt paving : May be recycled into paving for project.
 - 11. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - 12. Glass.
 - 13. Gypsum drywall and plaster.
 - 14. Plastic buckets.
 - 15. Carpet, carpet cushion, carpet tile, and carpet remnants , both new and removed: DuPont (<http://flooring.dupont.com>) and Interface (www.interfaceinc.com) conduct reclamation programs.
 - 16. Asphalt roofing shingles.
 - 17. Paint.
 - 18. Plastic sheeting.
 - 19. Rigid foam insulation.
 - 20. Vinyl siding.
 - 21. Windows, doors, and door hardware.
 - 22. Plumbing fixtures.
 - 23. Mechanical and electrical equipment.
 - 24. Fluorescent lamps (light bulbs).
 - 25. Acoustical ceiling tile and panels.
- F. The following recycling incentive programs are mandatory for this project; Contractor is responsible for implementation as per the California Green-Building Code and relevant Municipal Codes.
- G. Owner has made arrangements for salvage of the following materials by others: TBD
- H. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, incineration, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.

- I. Contractor shall develop and follow a Waste Management Plan designed to implement these requirements.
- J. The following sources may be useful in developing the Waste Management Plan:
 - 1. State Recycling Department.
 - 2. Recycling Haulers and Markets: The attached list contains local haulers and markets for recyclable materials. This list is provided for information only and is not necessarily comprehensive; other haulers and markets are acceptable.
 - 3. Recycling Economics Information: The attached list contains information that may be useful in estimating the costs or savings or recycling options.
- K. Methods of trash/waste disposal that are not acceptable are:
 - 1. Burning on the project site.
 - 2. Burying on the project site.
 - 3. Dumping or burying on other property, public or private.
 - 4. Other illegal dumping or burying.
- L. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the project site.
- K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Sustainable Design Documentation: Submit Landfill Alternatives Proposal, Waste Management Plan, and Waste Disposal Reports in accordance with procedures specified in Section 01 3329.
- C. Landfill Alternatives Proposal: Within 10 calendar days after receipt of Notice of Award of Bid, or prior to any trash or waste removal, whichever occurs sooner, submit a projection of trash/waste that will require disposal and alternatives to landfilling, with net costs.
 - 1. Submit to Engineer for Owner's review and approval.
 - 2. If Owner wishes to implement any cost alternatives, the Contract Price will be adjusted as specified elsewhere.
 - 3. Include an analysis of trash/waste to be generated and landfill options as specified for Waste Management Plan described below.
 - 4. Describe as many alternatives to landfilling as possible:
 - a. List each material proposed to be salvaged, reused, or recycled.
 - b. List the proposed local market for each material.
 - c. State the estimated net cost resulting from each alternative, after subtracting revenue from sale of recycled or salvaged materials and landfill tipping fees saved due to diversion of materials from the landfill.
 - 5. Provide alternatives to landfilling for at least the following materials:
 - a. Aluminum and plastic beverage containers.
 - b. Corrugated cardboard.
 - c. Wood pallets.
 - d. Clean dimensional wood.
 - e. Land clearing debris, including brush, branches, logs, and stumps.
 - f. Concrete.
 - g. Bricks.
 - h. Concrete masonry units.
 - i. Precast concrete panels.
 - j. Asphalt paving.
 - k. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - l. Glass.
 - m. Gypsum drywall and plaster.
 - n. Plastic buckets.
 - o. Carpet, carpet cushion, carpet tile, and carpet remnants , both new and removed: DuPont (<http://flooring.dupont.com>) and Interface (www.interfaceinc.com) conduct reclamation programs.
 - p. Asphalt roofing shingles.
 - q. Paint.
 - r. Plastic sheeting.
 - s. Rigid foam insulation.
 - t. Vinyl siding.
 - u. Windows, doors, and door hardware.
 - v. Plumbing fixtures.
 - w. Mechanical and electrical equipment.
 - x. Fluorescent lamps (light bulbs).
 - y. Acoustical ceiling tile and panels.
- D. Once Owner has determined which of the landfill alternatives addressed in the Proposal above are acceptable, prepare and submit Waste Management Plan; submit within 10 calendar days after notification by Engineer.

- E. Submit Waste Management Plan within 10 calendar days after receipt of Notice of Award of Bid, or prior to any trash or waste removal, whichever occurs sooner; submit projection of all trash and waste that will require disposal and alternatives to landfilling.
- F. Waste Management Plan: Include the following information:
 - 1. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.
 - 2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
 - 3. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
 - a. List each material proposed to be salvaged, reused, or recycled.
 - b. List the local market for each material.
 - c. State the estimated net cost, versus landfill disposal.
 - 4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
 - 5. Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
 - 6. Transportation: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.
 - 7. Recycling Incentives: Describe procedures required to obtain credits, rebates, or similar incentives.
- G. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
 - 1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
 - 2. Submit Report on a form acceptable to Owner.
 - 3. Landfill Disposal: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project disposed of in landfills.
 - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - 4. Incinerator Disposal: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project delivered to incinerators.
 - c. State the identity of incinerators, total amount of fees paid to incinerator, and total disposal cost.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - 5. Recycled and Salvaged Materials: Include the following information for each:
 - a. Identification of material, including those retrieved by installer for use on other projects.
 - b. Amount, in tons or cubic yards (cubic meters), date removed from the project site, and receiving party.
 - c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.

- d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
- 6. Material Reused on Project: Include the following information for each:
 - a. Identification of material and how it was used in the project.
 - b. Amount, in tons or cubic yards (cubic meters).
 - c. Include weight tickets as evidence of quantity.
- 7. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.
- H. Recycling Incentive Programs:
 - 1. Where revenue accrues to Contractor, submit copies of documentation required to qualify for incentive.
 - 2. Where revenue accrues to Owner, submit any additional documentation required by Owner in addition to information provided in periodic Waste Disposal Report.

PART 2 PRODUCTS

2.01 PRODUCT SUBSTITUTIONS

- A. See Section 01 6000 - Product Requirements for substitution submission procedures.
- B. For each proposed product substitution, submit the following information in addition to requirements specified in Section 01 6000:
 - 1. Relative amount of waste produced, compared to specified product.
 - 2. Cost savings on waste disposal, compared to specified product, to be deducted from the Contract Price.
 - 3. Proposed disposal method for waste product.
 - 4. Markets for recycled waste product.

PART 3 EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

- A. See Section 01 1000 for list of items to be salvaged from the existing building for relocation in project or for Owner.
- B. See Section 01 3000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.
- C. See Section 01 5000 for additional requirements related to trash/waste collection and removal facilities and services.
- D. See Section 01 6000 for waste prevention requirements related to delivery, storage, and handling.
- E. See Section 01 7000 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Engineer.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
 - 1. Pre-bid meeting.
 - 2. Pre-construction meeting.
 - 3. Regular job-site meetings.

- 4. Job safety meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
 - 1. As a minimum, provide:
 - a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
 - b. Separate dumpsters for each category of recyclable.
 - c. Recycling bins at worker lunch area.
 - 2. Provide containers as required.
 - 3. Provide temporary enclosures around piles of separated materials to be recycled or salvaged.
 - 4. Provide materials for barriers and enclosures that are nonhazardous, recyclable, or reusable to the maximum extent possible; reuse project construction waste materials if possible.
 - 5. Locate enclosures out of the way of construction traffic.
 - 6. Provide adequate space for pick-up and delivery and convenience to subcontractors.
 - 7. If an enclosed area is not provided, clearly lay out and label a specific area on-site.
 - 8. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

END OF SECTION

SECTION 01 76 10 - TEMPORARY PROTECTIVE COVERINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary protective coverings for installed floors, walls, other surfaces..

1.02 RELATED REQUIREMENTS

- A. Section 01 7000 - Execution and Closeout Requirements: Coordination of requirements for materials specified in this section.

1.03 REFERENCE STANDARDS

- A. ANSI A135.4 - American National Standard for Basic Hardboard; 2012.
- B. ASTM C208 - Standard Specification for Cellulosic Fiber Insulating Board; 2012.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2016.
- D. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2014.
- E. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films; 2015.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes available; and installation instructions.
- C. Shop Drawings: Indicate existing finished surfaces to be protected.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Temporary Protective Coverings:
 - 1. Fortifiber Building Systems Group ; fortifiber.com.
 - 2. Protex Products; www.protex-products.com.
 - 3. Surface Shields, Inc ; www.surfaceshields.com.
- B. Substitutions: See Section 01 6000 - Product Requirements.

2.02 GENERAL

- A. Provide materials that are easily removed without damage to the surfaces covered and with the following characteristics:
 - 1. Water resistant.
 - 2. Vapor permeable.
 - 3. Impact resistant.
 - 4. Slip resistant.
 - 5. Flame retardant.

2.03 MATERIALS

- A. Sheet Materials :
 - 1. Corrugated polypropylene sheet.
 - 2. Recycled paperboard/plastic composite sheet.
 - 3. Recycled paperboard sheet.
 - 4. Wood Hardboard: ANSI A135.4, tempered, 1/4 inch (6 mm) thick nominal.
 - 5. Plywood, 1/2 inch (13 mm) thick nominal.
 - 6. Fiberboard: ASTM C208, 1/2 inch (13 mm) thick nominal.
 - 9. Water Vapor Permeability: tested in accordance with ASTM E96/E96M.
 - 10. Flame Retardance: Meet requirements of NFPA 701.

11. Surface Burning Characteristics: Maximum flame spread index of 25 and smoke developed index of 450; when system tested in accordance with ASTM E84.
- B. Rolled Materials :
 1. Self-adhering polyethylene film.
 2. Recycled cellulose fiberboard paper.
 3. Laminated glass fiber reinforced kraft paper.
 4. Rosin coated paper.
 5. Roll Width: TBD
 6. Thickness: TBD
 7. Water Vapor Permeability: tested in accordance with ASTM E96/E96M.
 8. Flame Retardance: Meet requirements of NFPA 701.
 9. Surface Burning Characteristics: Maximum flame spread index of 25 and smoke developed index of 450; when system tested in accordance with ASTM E84.
- C. Corner and Door Jamb Protection Materials:
 1. Cardboard, shaped specifically for application.
 2. PVC plastic.
- D. Tape: Type recommended by protective covering material manufacturer.

PART 3 EXECUTION

3.01 PREPARATION

- A. Remove dirt and debris from surfaces to be protected.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Trim or overlap sheet materials to fit area to be covered.
- C. Roll out and cut rolled materials to fit area to be covered.
- D. Tape seams. Avoid taping directly to finished surfaces.
- E. Stretch self-adhering film materials to completely cover surface.
- F. Install door jamb protection to full height of opening.
- G. Position corner protection.

3.03 REMOVAL

- A. Remove protective coverings prior to Date of Substantial Completion. Reuse or recycle materials if possible.

END OF SECTION

SECTION 01 78 00 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions and 00 7300 - Supplementary Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Engineer with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Engineer comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.

- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish first floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
 - 6. Contractor shall provide record drawings in a PDF format to the City one week after completion of the project.

3.02 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
 - 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.

- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Include color coded wiring diagrams as installed.
- E. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- F. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- G. Provide servicing and lubrication schedule, and list of lubricants required.
- H. Include manufacturer's printed operation and maintenance instructions.
- I. Include sequence of operation by controls manufacturer.
- J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- K. Provide control diagrams by controls manufacturer as installed.
- L. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- M. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- N. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- O. Include test and balancing reports.
- P. Additional Requirements: As specified in individual product specification sections.

3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Engineer, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrangement of Contents: Organize each volume in parts as follows:

1. Project Directory.
2. Table of Contents, of all volumes, and of this volume.
3. Operation and Maintenance Data: Arranged by system, then by product category.
 - a. Source data.
 - b. Product data, shop drawings, and other submittals.
 - c. Operation and maintenance data.
 - d. Field quality control data.
 - e. Photocopies of warranties and bonds.
4. Design Data: To allow for addition of design data furnished by Engineer or others, provide a tab labeled "Design Data" and provide a binder large enough to allow for insertion of at least 20 pages of typed text.

3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.
- F. Manual: Bind in commercial quality 8-1/2 by 11 inch (216 by 279 mm) three D side ring binders with durable plastic covers.
- G. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- H. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- I. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

SECTION 01 79 00 - DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.01 SUMMARY

- A. Demonstration of products and systems where indicated in specific specification sections.
- B. Training of Owner personnel in operation and maintenance is required for:
 - 1. HVAC systems and equipment.
 - 2. Plumbing equipment.
 - 3. Electrical systems and equipment.
- C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
 - 1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
 - 2. Items specified in individual product Sections.

1.02 RELATED REQUIREMENTS

- A. Section 01 7800 - Closeout Submittals: Operation and maintenance manuals.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Training Plan: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
 - 1. Submit to Architect for transmittal to Owner.
 - 2. Submit not less than four weeks prior to start of training.
 - 3. Revise and resubmit until acceptable.
 - 4. Provide an overall schedule showing all training sessions.
 - 5. Include at least the following for each training session:
 - a. Identification, date, time, and duration.
 - b. Description of products and/or systems to be covered.
 - c. Name of firm and person conducting training; include qualifications.
 - d. Intended audience, such as job description.
 - e. Objectives of training and suggested methods of ensuring adequate training.
 - f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
 - g. Media to be used, such as slides, hand-outs, etc.
 - h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.
- C. Training Manuals: Provide training manual for each attendee; allow for minimum of two attendees per training session.
 - 1. Include applicable portion of O&M manuals.
 - 2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
 - 3. Provide one extra copy of each training manual to be included with operation and maintenance data.

1.04 QUALITY ASSURANCE

- A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
 - 1. Provide as instructors the most qualified trainer of those contractors and/or

- installers who actually supplied and installed the systems and equipment.
2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 DEMONSTRATION – GENERAL

- A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.
- B. Demonstration may be combined with Owner personnel training if applicable.
- C. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
 1. Perform demonstrations not less than two weeks prior to Substantial Completion.
 2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures. 1. Perform demonstrations not less than two weeks prior to Substantial Completion.

3.02 TRAINING – GENERAL

- A. Conduct training on-site unless otherwise indicated.
- B. Owner will provide classroom and seating at no cost to Contractor.
- C. Provide training in minimum two hour segments.
- D. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.
- E. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
 1. The location of the O&M manuals and procedures for use and preservation; backup copies.
 2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
 3. Typical uses of the O&M manuals.
- F. Product- and System-Specific Training:
 1. Review the applicable O&M manuals.
 2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
 3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
 4. Provide hands-on training on all operational modes possible and preventive maintenance.
 5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.

6. Discuss common troubleshooting problems and solutions.
 7. Discuss any peculiarities of equipment installation or operation.
 8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
 9. Review recommended tools and spare parts inventory suggestions of manufacturers.
 10. Review spare parts and tools required to be furnished by Contractor.
 11. Review spare parts suppliers and sources and procurement procedures.
- G. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

END OF SECTION

SECTION 02 41 00 - DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

- A. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

1.03 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Include a summary of safety procedures.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.05 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.
 - 1. Minimum of three years of documented experience.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

- A. Remove portions of existing buildings and existing site structures/items as indicated in the Drawings and as required for a complete project:
- B. Remove mechanical, plumbing, and electrical items as specified on the respective drawing sheets.
- C. Remove concrete slabs on grade as indicated on drawings.
- D. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill to 95% relative compaction.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.

3. Provide, erect, and maintain temporary barriers and security devices.
 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 5. Do not close or obstruct roadways or sidewalks without permit.
 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
1. Provide bracing and shoring.
 2. Prevent movement or settlement of adjacent structures.
 3. Stop work immediately if adjacent structures appear to be in danger.
- D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.
1. Dismantle existing construction and separate materials.
 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.
- G. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

3.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as shown.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
- C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
 - 4. Patch as specified for patching new work.

3.05 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 05 40 00 - COLD FORMED METAL STUDS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Interior wall framing using cold formed metal framing at plumbing walls, wall opening and cabinet bearing walls.
- B. Formed steel accessories.

1.02 RELATED REQUIREMENTS

- A. Section 09 2116 - Gypsum Board Assemblies.

1.03 REFERENCE STANDARDS

- A. ASTM A1003/A1003M – Specification for Steel Sheet, carbon, metallic and nonmetallic coated for cold-formed framing members.
- B. ASTM A653/A563M - Standard specification for steel sheet, zinc-coated (galvanized) or Zinc - Iron alloy - coated (galvanized) by the hot dip process.
- C. ASTM C954 - Steel Drill Screws for the Application of Gypsum Board or Metal Plaster Bases to Steel Studs from 0.033 to 0.112 Inches in Thickness.
- D. AWS D1.3 - Structural Welding Code, Sheet Steel.
- E. AISI – American Iron and Steel Institute, standard for cold-formed steel framing – general provision.
- F. GA 203 - Installation of Screw-Type Steel Framing Members to Receive Gypsum Board.
- G. SSMA/ICC ES-4943P – Steel Stud Manufacturers Association.

1.04 SUBMITTALS

- A. Provide product data on standard framing members. Describe materials and finish, product criteria, limitations and properties.
- B. Mill certificates: signed by the steel sheet producer indicating steel sheet complies with requirements.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in structural framing components with five years minimum experience.

PART 2 - PRODUCTS

2.01 FRAMING MATERIALS

- A. Studs: ASTM A1003, Structural Grade 33, Type H, sheet steel, formed to "wide flange" shape or "C" shape, punched web, 20 gauge (0.0329", SSMA designation 33) thick unless noted otherwise on drawings, 33 ksi steel unless noted otherwise on drawings, sizes required to conform to details and scheduled wall thicknesses, and as required for structural performance. Studs shall be rolled from new sheet steel and shall not be produced from re-rolled steel.
 - 1. Properties: As listed in manufacturer's standard tables for applicable grade of steel and sizes.
 - 2. Conform to SSMA, ICC ES-4943P.
 - 3. Coating: Zinc coated per ASTM A653, G60 or prime painted.
- B. Track: ASTM A1003, Structural Grade 33, Type H, sheet steel, channel shaped, deep leg, 20 gauge (0.0329", SSMA designation 33) thick unless noted otherwise on drawings, 33 ksi steel unless noted otherwise on drawings, solid web, long leg at ceilings, profile to produce snug fit over adjacent components.
 - 1. Conform to SSMA, ICC ES-4943P.
 - 2. Provide stand-off washers for fasteners.
 - 3. Install in accordance with manufacturer's recommendations and fire rating requirements.
- C. Stiffeners Channels and Angles: Minimum Weights as Follows:
 - 1. 3/4 inch - .3 pound per foot, cold- or hot-rolled channel.
 - 2. 1-1/2 inches - .475 pound per foot, cold-rolled channel.
 - 3. 1-1/2 inches - 1.12 pounds per foot, hot-rolled channel.
 - 4. 2 inches - 1.26 pounds per foot, hot-rolled channel.
 - 5. 2 inches - .59 pound per foot, cold-rolled channel.
 - 6. 1-1/2 x 1-1/2 x 3/16 inch angle.
- D. Fastening: Self-drilling, Self-tapping Screws, ASTM C954, galvanized, Buildex/Tomarco Type S-12 point, low profile head screws #10 or equal, 1/2 inch long for two layers 20 gauge metal for non load-bearing framing, welded connections as per plan.
 - 1. Welding: In conformance with AWS D1.3, minimum weld size 3/32".
- E. Anchorage Devices, Powder Actuated:
 - 1. Conform to Division 01. General requirement.
 - 2. Minimum .177 inch diameter by 1-7/16 inch long fasteners in regular concrete and .145 inch diameter by 1-1/8 inch long fasteners in lightweight concrete. Allowable shear and tension values as permitted in ICBO Report No. 2388, 1639 or 1147.
- F. Anchorage Devices, Drilled Expansion Anchors:
 - 1. Conform to Division 01, General Requirements.
- G. Anchorage Devices, Drilled Expansion Anchors:
 - 1. Wedge Type: KWIK Bolt TZ Concrete Anchor, 3/8 to 3/4 inch diameter, ICC ESR-1917, by Hilti Inc., Tulsa, OK.
 - a. Eyebolt HHDCa drill-in anchor for suspended ceilings. Provide minimum 1/4-inch size anchor, requires testing refer to Division 01.
 - 2. Adhesive Anchors System:
 - a. For fully grouted CMU, lightweight concrete, construction per ICC ES-1385, Hilti Bolt 3 (KB3).
 - b. For Normal Weight concrete with min. compressive of 2000 psi or 4000 psi. Per ICC ESR-2322, Hilti HIT RE 500-SD Adhesive Anchor System.
- H. Tie Wire: Minimum 16 gage galvanized annealed low carbon steel.

- I. Welding: In conformance with AWS D1.3.
- J. Backing: As indicated on drawings or 6 x 1-1/4 x 16 gage flush mount backing, preformed with pre-punched screw holes, FLUSH-MOUNT BACKING by Metal-Lite, Inc., Anaheim, CA, or equal.

2.02 FINISHES

- A. Primer: Series P10-99 modified alkyd, red color, air dried to minimum 0.001 inch or .026 mm thickness, by Tnemec or equal as approved.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Verify that substrate surfaces and building framing components are ready to receive work.
- B. Beginning of installation means acceptance of existing conditions.

3.02 ERECTION OF STUDDING

- A. Perform work in accordance with AISI and SSMA/ICC ES-4943P.
- B. Align floor and ceiling tracks; locate to wall or partition layout. Secure in place with specified fasteners at spacing as indicated on drawings or maximum 32 inches oc.
- C. Place studs at 16 inches oc typically, or 12 inches oc in plumbing walls or as noted on drawings. Connect studs to tracks using fastener or welding method.
- D. Construct corners using minimum three studs.
- E. Install double (boxed) studs at each head, jamb and sill of each exterior and interior door and window opening. Extend studs from floor to underside of structure above. Weld all boxed jamb and header members with interrupted one inch welds at 12 inches on centers.
- F. Install 1-1/2 inch standard steel furring channels at right angles to king stud at each door hinge point as permitted by perforations. Weld channel to four studs where possible.
- G. Stiffeners: Install 3/4 inch standard steel furring channel stiffeners within 24 inches of top and bottom runners and at mid height of walls eight feet high. At higher walls, install stiffeners spaced maximum 48 inches on centers. Weld or tie stiffeners to each stud and at laps.
- H. In areas where a finish material occurs on one side of wall only, provide full width bridging or bracing. Two systems permitted:
 - 1. Install 3/4 inch x 16 gage continuous brace through stud punch-outs, fastened to studs with angle clips welded or screw fastened, spaced as scheduled below.
 - 2. Install 1-1/4 inch x 16 gage strap, 3/4 inch x 16 gage or cold-rolled channel continuous across unrestrained edges of studs spaced as scheduled below, screw fastened or welded to each stud, and connected to one blocking member screw fastened or welded to adjacent studs.

I. Bridging or Bracing Schedule:

Stud Size	Bracing Spacing
3-5/8 or 4 in, "c"	4'-0"
3-5/8 or 4 in, "w"	4'-0"
6 in, "c"	4'-0"
6 in, "w"	4'-0"

- J. Erect studs one piece full length. Splicing of studs is not permitted, except where detailed.
1. Where studs have been cut to receive piping conduits and equipment, weld on two 3/4 inch furring channels to restore stability of weakened stud.
- K. Erect studs, brace and reinforce full strength to meet design requirements.
- L. Extend stud framing through ceiling to underside of floor or roof structure above unless detailed otherwise.
- M. Coordinate placement of insulation in multiple stud spaces made inaccessible after erection.
- N. Install intermediate studs above and below openings to match wall stud spacing.
- O. Provide deflection allowance of 1/2 inch minimum in stud track, directly below horizontal building framing for non-load bearing framing.
- P. Attach backing as detailed on the drawings for attachment of fixtures anchored to walls.
- Q. Install framing between studs for attachment of mechanical and electrical items and to prevent stud rotation.
- R. Touch-up field welds and damaged primed surfaces with primer.

3.03 CEILING JOIST FRAMING

- A. Steel Ceiling Joists: Manufacturer's standard C-shaped steel sections, of web depths indicated, punched with enlarged service holes, with stiffened flanges, and as follows:
1. Minimum Base-Metal Thickness:
 - a. 20 GA (0.0329 inch) (0.84 mm).
 - b. 18 GA (0.0428 inch) (1.09 mm).
 - c. 16 GA (0.0538 inch) (1.37 mm).
 - d. 14 GA (0.0677 inch) (1.72 mm).
 - e. 12 GA (0.0966 inch) (2.45 mm).
 2. Flange Width: 1-5/8 inches (41 mm) minimum.
 3. Install per drawings and conform to SSMA.

3.04 TOLERANCES

- A. Maximum Variation from True Position: 1/4 inch in 10 feet.
- B. Maximum Variation of any Member from Plane: 1/8 inch.

3.05 QUALITY CONTROL

- A. Inspection of all field-welding operations shall be performed by qualified and certified Welding Inspector approved by the Structural Engineer..
- B. Welding Inspector shall check materials, equipment, procedures, welds and certification of welders. Furnish the Owner with reports verified by the Inspector that welding has been performed in accordance with the Contract Documents.

END OF SECTION

SECTION 07 21 20 - BUILDING INSULATION

PART 1 GENERAL

1.01 PROJECT

- A. Batt insulation in interior walls

1.02 RELATED REQUIREMENTS

- A. Section 05 4000 – Cold Formed Metal Studs

1.03 REFERENCE STANDARDS

- A. ASTM C 665 – Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2006.
- B. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials; 2007.
- C. ASTM E 136 – Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C; 2004.

1.04 SUBMITTALS

- A. Reference Front End Specifications for further requirements.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.
- B. Materials specified in this section to carry the Greenguard label.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Insulation:
 - 1. CertainTeed Corporation: www.certainteed.com
 - 2. John Mansville: www.jm.com.
 - 3. Owens Corning Corporation: www.owenscorning.com.

2.02 BATT INSULATION MATERIALS

- A. Batt Insulation: ASTM C 665; preformed glass fiber batt, friction fit, conforming to the following:
 - 1. Surface Burning Characteristics: Flame spread index of 25 or less; smoke developed index of 50 or less, when tested in accordance with ASTM E 84.
 - 2. Combustibility: Non-combustible, when tested in accordance with ASTM E 136, except for facing, if any.
 - 3. Formaldehyde Content: Zero.
 - 4. Thermal Resistance: (Unless otherwise noted on plans with an increase value)
 - a. Interior Wall Sound Insulation: Fiberglass sound control batts 3 5/8" thick.

- At full height wall conditions provide sound insulation full height of wall.
5. Manufacturer shall certify that a minimum of 25% of content of insulation is of recycled materials.
 6. Facing: Asphalt treated Kraft paper, one side.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation and adhesive.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BATT INSTALLATION

- A. Install insulation in accordance with manufacturer's instructions.
- B. Install in exterior wall and roof spaces without gaps or voids. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

END OF SECTION

SECTION 07 90 05 - JOINT SEALERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sealants and joint backing.

1.02 REFERENCE STANDARDS

- A. ASTM C 834 - Standard Specification for Latex Sealants; 2005.
- B. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 2005.
- C. ASTM C 1193 - Standard Guide for Use of Joint Sealants; 2009.
- D. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition; www.aqmd.gov.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data indicating sealant chemical characteristics.

1.04 FIELD CONDITIONS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.05 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories which fail to achieve airtight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 SEALANTS

- A. Sealants and Primers - General: Provide only products having lower volatile organic compound (VOC) content than required by South Coast Air Quality Management District Rule No.1168.
- B. General Purpose Exterior Sealant: Acrylic, solvent release curing; ASTM C 920, Grade NS, Class 12-1/2, Uses M, G, and A; single or multi- component.
 - 1. Color: To be selected by Architect from manufacturer's standard range.
 - 2. Applications: Use for:
 - a. Control, expansion, and soft joints in masonry.
 - b. Joints between concrete and other materials.
 - c. Joints between metal frames and other materials.
 - d. Other exterior joints for which no other sealant is indicated.

- C. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, Type OP, Grade NF single component, paintable.
 - 1. Color: To be selected by Architect from manufacturer's standard range.
 - 2. Applications: Use for:
 - a. Interior wall and ceiling control joints.
 - b. Joints between door and window frames and wall surfaces.
 - c. Other interior joints for which no other type of sealant is indicated.
- D. Interior Floor Joint Sealant: Polyurethane, self-leveling; ASTM C 920, Grade P, Class 25, Uses T, M and A; single component.
 - 1. Color: To be selected by Architect from manufacturer's standard range.
 - 2. Applications: Use for:
 - a. Expansion joints in floors.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are ready to receive work.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C 1193.
- D. Protect elements surrounding the work of this section from damage or disfigurement.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C 1193.
- C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave.

3.04 CLEANING

- A. Clean adjacent soiled surfaces.

3.05 PROTECTION

- A. Protect sealants until cured.

END OF SECTION

SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Non-fire-rated steel doors and frames.
- B. Thermally insulated steel doors.

1.02 RELATED REQUIREMENTS

- A. Section 08 7100 - Door Hardware.
- B. Section 09 9000 - Painting and Coating: Field painting.

1.03 REFERENCE STANDARDS

- A. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2003.
- B. ANSI A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames; 2003.
- C. ANSI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1998 (R2004).
- D. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2009.
- E. BHMA A156.115 - Hardware Preparation in Steel Doors and Steel Frames; 2006.
- F. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; The National Association of Architectural Metal Manufacturers; 2007.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced grade standard.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store in accordance with NAAMM HMMA 840.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steel Doors and Frames:
 - 1. Windsor Republic Doors: www.republicdoor.com.
 - 2. Steelcraft: www.steelcraft.com.
 - 3. Ceco Door Products; www.cecodoor.com.
 - 4. Substitutions: Not permitted.

2.02 DOORS AND FRAMES

- A. Requirements for All Doors and Frames:
 - 1. Accessibility: Comply with ANSI/ICC A117.1.
 - 2. Door Top Closures: Flush with top of faces and edges.
 - 3. Door Texture: Smooth faces.
 - 4. Hardware Preparation: In accordance with DHI A115 Series, with reinforcement welded in place, in addition to other requirements specified in door grade standard.
 - a. Frame reinforcement:
 - 1) Hinges: 7 gauge
 - 2) Strikes: 12 gauge
 - 3) Closures: 12 gauge
 - 4) Openings: 12 gauge
 - 5. Finish: Factory primed, for field finishing.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with all the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 STEEL DOORS

- A. Interior Doors, Fire-Rated:
 - 1. Full flush in ratings as listed on the drawings.

2.04 STEEL FRAMES

- A. General:
 - 1. Comply with the requirements of grade specified for corresponding door.
 - a. ANSI A250.8 Level 1 Doors: 16 gage frames.
 - b. ANSI A250.8 Level 3 Doors: 14 gage frames.
 - 2. Finish: Same as for door.
 - 3. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
 - 4. Anchors:
 - b. Floor anchors to be 14 gauge welded to inside of jamb.
- B. Interior Door Frames, Fire-Rated: Fully welded type.
 - 1. Terminated Stops: Provide at all interior doors; closed end stop terminated 6 inches (150 mm) above floor at 45 degree angle.

2.05 ACCESSORY MATERIALS

- A. Louvers: Roll formed steel with overlapping frame; finish same as door components; factory-installed.
- B. Grout for Frames: Portland cement grout of maximum 4-inch slump for hand troweling; thinner pumpable grout is prohibited.

- C. Temporary Frame Spreaders: Provide for all factory- or shop-assembled frames.

2.06 FINISH MATERIALS

- A. Primer: Rust-inhibiting, complying with ANSI A250.10, door manufacturer's standard.
- B. Bituminous Coating: Asphalt emulsion or other high-build, water-resistant, resilient coating.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.

3.02 PREPARATION

- A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

3.03 INSTALLATION

- A. Install in accordance with the requirements of the specified door grade standard and NAAMM HMMA 840.
- B. Coordinate frame anchor placement with wall construction.
- C. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- D. Coordinate installation of hardware.
- E. Touch up damaged factory finishes.

3.04 ADJUSTING

- A. Adjust for smooth and balanced door movement.

END OF SECTION

SECTION 08 21 10 - FLUSH WOOD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Flush wood doors; flush configurations; non-rated

1.02 RELATED SECTIONS

- A. Section 08 1113 – Hollow Metal Doors and Frames
- B. Section 08 7100 – Door Hardware

1.03 REFERENCES

- A. AWI/AWMAC (QSI) – Architectural Woodwork Quality Standards Illustrated; Architectural Woodwork Institute and Architectural Woodwork Manufacturers Association of Canada; 2006.
- B. NEMA LD 3 – High Pressure Decorative Laminates; National Electrical Manufacturers Association; 2005.
- C. FSC – Forest Stewardship Council.

1.04 SUBMITTALS

- A. Reference Front End Specifications for further requirements.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Specimen warranty.
- D. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special beveling, special blocking for hardware, factory machining criteria, factory finishing criteria, identify cutouts for glazing and louvers.
- E. Samples: Submit three samples of door veneer, 4x4 inch in size illustrating plastic laminate pattern and color.
- F. Manufacturer's Installation Instructions: Indicate special installation instructions.
- G. Warranty, executed in Owner's name.
- H. For all wood products designated in this specification as FSC Certified, provide evidence of compliance with FSC Standards as follows:
 - 1. Demonstrate the products are FSC Certified by providing vendors invoices. Invoices will contain the vendor's Chain of Custody (COC) number and identify each FSC Certified product on a line-item basis. A 'vendor' is defined as the company that furnishes wood products to project contractors and or subcontractors for on-site installation.
 - 2. Wood products without submittal of acceptable documentation will be rejected.

1.05 QUALITY ASSURANCE

- A. Maintain one copy of the specified door quality standard on site for review during

installation and finishing.

- B. All wood products designated as FSC Certified in this specification shall be certified according to the rules of the Forest Stewardship Council (www.fscus.org).
- C. The following North American certification bodies are accredited by the FSC to certify forest products:
 - 1. Scientific Certification Systems (www.scs-certified.com)
 - 2. SmartWood (www.smartwood.org)
 - 3. SGS Qualifor (www.qualifor.com)
 - 4. Soil Association (www.soilassociation.org)

1.06 DELIVERY, STORAGE, AND PROTECTION

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer if stored more than one week. Break seal on site to permit ventilation.

1.07 PROJECT CONDITIONS

- A. Coordinate the work with door opening construction, door frame and door hardware installation.

1.08 WARRANTY

- A. Reference Front End Specifications for further requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delaminating of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. High Pressure Decorative Wood Doors:
 - 1. VT Industries, Inc: www.vtindustries.com.
 - 2. Substitutions: Reference Front End Specifications for further requirements.

2.02 DOORS

- A. All Doors: See drawings for locations and additional requirements.
 - 1. Quality Level: Custom Grade, in accordance with AWI/AWMAC Architectural Woodwork Quality Standards Illustrated, Section 1300.
- B. Interior Doors: 1 ¾ inches thick unless otherwise indicated; flush construction.
 - 1. Provide solid core doors at all locations.
 - 2. Provide stain grade doors to match existing doors

2.03 DOOR AND PANEL CORES

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type staved lumber core (SLC), plies and faces as indicated above.
- B. Core, Non-Rated and 20 Minute Rated: ANSI A208.1 Grade M-2 particleboard, minimum, with no seams on faces; edges reinforced as required to pass WDMA performance grade specified.

2.04 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Cores constructed with stiles and rails
- C. Provide solid blocks at lock edge for hardware reinforcement.
- D. Fit door edge trim to edge of stiles after applying veneer facing.
- E. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- F. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standards.
- G. Provide edge clearances in accordance with AWI Quality Standards Illustrated Section 1700.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
- B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.

3.03 INSTALLATION TOLERANCES

- A. Conform to specified quality standard for fit and clearance tolerances.
- B. Conform to specified quality standard for maximum diagonal distortion.

3.04 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

END OF SECTION

SECTION 08 71 00 - DOOR HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior and exterior finish hardware as indicated on Door Schedule and Drawings, and specified herein.
- B. Provide all labor, materials, equipment, trim, fastenings, associated attachments, and accessories necessary to provide a complete and proper installation.
- C. Coordination with other trades for complete installation.

1.02 RELATED REQUIREMENTS

- A. Section 07 9005 - Joint Sealers
- B. Section 08 1113 - Hollow Metal Doors and Frames

1.03 QUALITY ASSURANCE

- A. Manufacturers – As specified in Part 2 and Part 3.
- B. Qualifications of Manufacturer – The proposed manufacturer of finish hardware shall have been successfully engaged in the manufacture of finish hardware for at least five (5) years immediately prior to the start of this work.
- C. Qualifications of Installers – Work to be performed only by workers thoroughly skilled and specially trained in the techniques of installing finish hardware, and who are completely familiar with the published recommendations of the manufacturer of the material being used. Installer to have a minimum of three (3) years experience with institutional/ commercial grade finish hardware.
- D. Hardware Supplier: Company specializing in supplying institutional door hardware with three years documented experience. Company shall employ Architectural Hardware Consultant (AHC) who shall be available for jobsite meetings and required by Architect, Owner and Contractor. Architectural Hardware Consultant to visit the jobsite at end of installation and accomplish the following:
 - 1. Re-adjust hardware as required.
 - a. Evaluate maintenance procedures and recommend changes or additions, and instruct Owner personnel.
 - i. Identify items that have deteriorated or failed.
 - ii. Submit written report identifying problems.
- E. Contractor is responsible for coordinating finish hardware with Doors and Frames as specified in Sections 08 1113. This includes the Contractor providing templates and/or physical samples of approved finish hardware items to pertinent manufacturers of interfacing items.

1.04 REFERENCES

- A. ANSI 117.1 – Specifications for making buildings and facilities accessible to and usable by Physically Handicapped People.
- B. Conform to Chapter 10, California Building Code and NFPA Standard Number 80, for requirements applicable to fire rated doors and frames.

- C. Provide UL labels on all panic devices in fire-rated openings.
- D. Provide California State Fire Marshall Listing for all fire exit hardware.
- E. Comply with ADA- Americans with Disabilities Act, and as shown on Drawings.
- F. BHMA – Builder’s Hardware Manufacturers Association.
- G. DHI – Door and Hardware Institute.
- H. NAAMM – National Association of Architectural Metal Manufacturer.
- I. CBC – California Building Code.
- J. SDI – Steel Door Institute.

1.05 SUBMITTALS

- A. Reference Front End Specifications for further requirements.
- B. Shop Drawings:
 - 1. Complete materials list of all items, including catalog cuts and keying description for each hardware group.
 - 2. Hardware schedule that is to include all door locations, sizes, materials, labels, proper handing and details.
 - 3. Indicate locations, mounting heights, quantity, and part numbers of each type of hardware.
 - 4. Include manufacturer’s certification that fire-rated hardware meets specified requirements.
 - 5. Use BHMA Finish Codes per ANSI A156.18
 - 6. Explanation of abbreviations, symbols and codes contained in schedule.
 - 7. Manufacturer’s technical data and installation instructions for electronic hardware.
 - 8. Provide final keying charts for Owner approval.

1.06 PRODUCT HANDLING

- A. Protection
 - 1. Hardware to be stored at the job site in a safe, secure, dry place with all labels intact and legible at time of installation.
 - 2. Use all means to protect hardware before, during, and after installation. Do not allow products to become wet or damp.
- B. Replacements – In the event of damage, including water intrusion, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.
- C. Delivery
 - 1. Package hardware items individually; group small items together, label and identify; package with door opening code to match hardware schedule. Identify location of each door opening. Deliver in strong sturdy containers.

1.07 WARRANTY

- A. Reference Front End Specifications for further requirements.

- B. Provide a two-year warranty for Contractor's installation and for all products. These warranties are to include the following language:
1. "For a period of not less than two (2) years, we (Firm Name) will service and or replace, at no charge to the Owner, any part proving defective due to faulty manufacture or materials. This guarantee does not cover abnormal operation conditions or abusive jobsite treatment after acceptance of Work by Owner."

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

ITEM:	MANUFACTURER	ACCEPTABLE SUBSTITUTION
Hinges	(IVE) Ives	Bommer
Key System	(SCH) Schlage	Owner's Standard
Locks	(SCH) Schlage	Owner's Standard
Exit Devices	(VON) Von Duprin	Owner's Standard
Closers	(LCN) LCN	Owner's Standard
Auto Flush Bolts	(IVE) Ives	DCI
Coordinators	(IVE) Ives	DCI
Silencers	(IVE) Ives	Rockwood
Push and Pull Plates	(IVE) Ives	Rockwood
Kickplates	(IVE) Ives	Rockwood
Stops and Holders	(IVE) Ives	Rockwood
Overhead Stops	(GLY) Glynn-Johnson	ABH
Thresholds	(PEM) Pemco	Zero
Metal Access Ramps	(PEM) Pemco	Non Available
Seals and Bottoms	(PEM) Pemco	Zero
Key Cabinets	(LUN) Lund	TelKee

- A. Provide special wrenches and tools applicable to each different or special hardware component.
- B. Provide maintenance tools and accessories supplied by hardware component manufacturer.
- C. Miscellaneous – All other items, tools, materials, and equipment, not specifically described but required for a complete and proper installation of finish hardware, as recommended by the manufacturer, subject to the approval of the Architect.

2.02 GENERAL

- A. Proprietary Products – References to specific proprietary products are used to establish minimum standards of utility and quality. Unless otherwise approved by the Architect, provide only the specific products. Design is based on the materials specified. Other materials may be considered by the Architect in accordance with pertinent sections of Division 1, General Conditions, and Supplementary Conditions.
- B. Fasteners
 1. Furnish all finish hardware with all necessary screws, bolts, and other fasteners of suitable size and type to anchor the hardware in position for long life under hard use.
 2. Furnish fastenings where necessary with expansion shields, toggle bolts, sex bolts, and other anchors approved by the Architect, according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer.
 3. All fastenings shall harmonize with the hardware as to material and finish.

- C. Finishes – All hardware shall match the finish of the locksets, unless specified otherwise. Take special care to coordinate all of the various manufactured items furnished under this Section, to ensure acceptably uniform finish.
- D. Single Source – Unless otherwise noted or approved in advance by the Architect, furnish for each item.

2.03 KEYING

- A. All locks and cylinders shall be keyed to an existing 6-pin grandmaster key system. Furnish 6 of each master keys. furnish 3 change keys per lock. Keyway shall be Schalgé 6 pin 'C'.
- B. Master Keying – Key all cylinders and locks as directed by the Owner and Architect.
- C. Number of Keys – Furnish three (3) keys for each level of keying, as directed by Architect.
- D. Construction Keying – Furnish a manufacturer's standard construction master key system. Furnish 3 master keys. Use only the construction keys during construction.
- E. Identification and Delivery – Factory stamp permanent keys as directed by Architect. Identify permanent keys with tags, and deliver directly to the Owner from the manufacturer (via security shipment). Factory stamp permanent keys, "DO NOT DUPLICATE". Provide key bitting chart to Architect when requested to do so in writing.
- F. Interchangeable Construction Keying: Furnish temporary keyed-alike cylinders and cores. Remove at Substantial Completion and install permanent cylinders and cores in Owner's presence. Demonstrate that construction key no longer operates.

2.04 KEY CONTROL SYSTEM

- A. Only provide wall-mounted key cabinet, 18 gauge construction, piano-hinged door with lock. Provide manufacturer's standard Two-Tag system including Cross Reference Binder, envelopes, labels, tags with self-locking key clips, receipt forms temporary and permanent markers. Hooks numbered 1-50.
- B. Cabinet Size: Sufficient for capacity for 150% of the locks required for the project.
- C. Internal Hooks: Number consecutively from Number 1 up to 50.
- D. Mount at direction of Owner.

2.05 FINISHES

- A. Finishes are identified in Schedule at end of this Section and conform to the following standards of symbols.
 - 1. Finish/DescriptionUS SymbolBHMA No.
 - 2. Prime CoatPC600
 - 3. Polished Brass3605
 - 4. Satin Brass4606
 - 5. Polished Bronze9611
 - 6. Satin Bronze10612
 - 7. Oil Rubbed Bronze10B613
 - 8. Satin Chromium26D626/652
 - 9. Polished Chromium26625/651
 - 10. Stainless Steel32D630
 - 11. Polished Stainless Steel32629

PART 3 EXECUTION

3.01 DELIVERIES

- A. Stockpile all items sufficiently in advance to ensure their availability, and make all necessary deliveries in a timely manner to ensure orderly progress of the total work.

3.02 SURFACE CONDITIONS

- A. Inspection
 - 1. Prior to installation of the work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
 - 2. Verify that the finish hardware may be installed in accordance with the approved design.
 - 3. Verify that power supply is available to power operated devices.
 - 4. Commencement of work means acceptance of existing conditions.
- B. Discrepancies
 - 1. In the event of discrepancy, immediately notify the Architect.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.03 PREPARATION AND INSTALLATION

- A. Field verify dimensions prior to installation.
- B. Install all finish hardware in strict accordance with the manufacturer's current recommendations, installing completely level, and anchoring firmly for long life under hard use.
- C. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the Work of this Section.
- D. Upon completion of the installation, and as a condition of its acceptance, visually inspect all finish hardware furnished under this Section and place in optimum working condition.
- E. Install hardware in accordance with Manufacturer's instructions and with CBC Section 1133B.2.5.1.
- F. Conform to ANSI A117.1 for positioning requirements for accessibility.
- G. Use the templates provided by hardware item manufacturer.
- H. Mounting heights for Hardware:
 - 1. Locate levers, key cylinders, t-turn pieces, touch bars and other operable portions of latching hardware between 30" and 44" above the finished floor per CBC Section 1133B.2.5.2.
 - 2. Hinges: 5 inches from head of opening to top of top hinge; 10 inches from finish floor to bottom of bottom hinge; intermediate hinge(s) spaced equidistant between top and bottom butts.
- I. Secure finish hardware with suitable fasteners of the same material and finish as the item being attached.
- J. Provide expansion anchors for attaching hardware items to concrete or masonry.

- K. After fitting hardware to doors remove all finish hardware except butt hinges, carefully replace in properly marked boxes and place in storage until painting and finishing is completed. After painting and finishing is completed, permanently install finish hardware.
- L. Secure finish hardware with suitable fasteners of the same material and finish as the item being attached.
- M. Mount exit devices and closers on mineral or particle core fire doors with closed head sex bolts.
- N. Install jamb applied gaskets before closers, overhead stops, rim strikes, etc. Fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.

3.04 FASTENERS

- A. Screw for strikes, face plates and similar items shall be flat Phillips head, countersunk type; provide machine screws for metal and standard wood screws for wood.
- B. Screws for butt hinges shall be flat Phillips head, countersunk, full-thread type.
 - 1. Fastening of closer bases of closer shoe to doors shall be by means of sex bolts and spray painted to match closer finish.

3.05 BUTT HINGES

- A. Furnish 3 each 4 ½" ball or lube bearing hinges at doors up to 89" tall. Furnish one additional hinge for each additional 30" of door height.
- B. Furnish 5" extra heavy duty hinges at doors 42" and wider and where listed in the hardware groups.
- C. Provide sufficient hinge width to clear trim and allow 180 degree swing.
- D. All hinges shall be manufactured in the United States.

3.06 LOCKS

- A. Provide locks as scheduled with 2-¾" backset. Locks for labeled doors shall have a fusible link mechanism to prevent retraction in the event of fire.
- B. Furnish strikes with curved lip of sufficient length to clear trim and protect clothing.

3.07 DOOR CLOSERS

- A. Provide adjustable closers with the following maximum pressure for opening doors. Adjust closers after installation and test doors in the event of fire.
 - 1. Interior Doors: 5.0 pounds of pressure
 - 2. Exterior Doors: 8.5 pounds of pressure
 - 3. Fire Doors: 15.0 pounds of pressure
- B. Comply with CBC Section 1133B.2.5.
- C. Factory Representative shall visit project prior to acceptance of project by Owner to insure installation and adjustment of closers is correct.
- D. Furnish mounting plates and brackets as necessary to allow for a complete installation.

3.08 SIGNS

- A. Exit doors with dead locks (for 'B' occupancies) shall have indicating type lock hardware or appropriate signing in accordance with CBC Sections 1117B.5 and 1103.2.4, 'THIS DOOR TO REMAIN UNLOCKED WHENEVER THE BUILDING IS OCCUPIED'. Doors with panic devices are excepted from this provision.

3.09 PANIC DEVICES

- A. All panic devices must meet ANSI Standard 156.3 Grade 1. Panic devices must be UL Listed and California Fire Marshall Listed. Comply with CBC Section 1003.3.1.9. All Rail Assemblies shall be made of brass, bronze or stainless steel. Springs shall be manufactured of stainless steel. Push rail height shall be 40" from floor to centerline. All trim shall be thru bolted. Provide fire rated devices at labeled openings as noted in the Door Schedule.

3.10 AUTOMATIC FLUSH BOLTS AND COORDINATORS

- A. Shall be tested by independent lab for cycle test of 100,000 cycles minimum. Units must comply with UL specifications for use on fire rated openings up to three (3) hours for metal doors and one and one half (1 ½) hour for wood doors. Units shall work with five (5) pounds of closing force for top and bottom bolts. Auto flushbolts shall have a built-in override feature engineered to prevent damage to door, frame, or bolt assembly should circumstances prevent normal operation.

3.11 THRESHOLDS AND DOOR SEALS

- A. Extruded thresholds shall be made from S6063-T5 Alloy aluminum, and/or #385 alloy bronze (brass) as noted in hardware schedule. Thresholds shall comply with CBC Section 1133B.2.4.1. Door seals and thresholds for fire labeled doors shall be tested and approved by an independent laboratory as follows:
 - 1. NFPA 105-1989
 - 2. UL-1784
 - 3. UL10B and CB. Provide seals and thresholds as noted in hardware schedule and/or on sill details. Provide carpet separators as necessary to comply with fire codes. All exterior thresholds shall be set in a full bed of butyl mastic.

3.12 SECURITY PULLS

- A. Provide 1096HA/1097HA Pulls as noted in schedule. All pulls shall be manufactured with 316SS material. Pull shall be approved for accessibility and shall furnished in finish noted. Provide stainless steel SNB fasteners for each pull..

3.13 PUSH, PULLS, STOPS AND KICK PLATES

- A. Push-pulls, stops and kick plates shall be provided by one manufacturer. All products shall be provided in aluminum, brass, bronze or stainless steel base metals. Kick plates to 0.50" material, beveled on four edges. Sharp edges on Push, Pull and Kick Plates will be subject to rejection and replacement. All floor stops and holders shall be mounted within 4 inches of adjacent walls and partitions per DSA Policy 99-8.

3.14 PROTECTING AND CLEANING

- A. Upon completion of the work, remove surplus materials, rubbish and debris resulting from the finish hardware installation. Leave areas in neat, clean, and orderly condition.

- B. Cover installed hardware and protect from paint, cleaning agents, etc. Remove prior to Substantial Completion and clean hardware for acceptance by Owner.
- C. Repair or replace any damaged work.
- D. Use manufacturer-recommended cleaning agents.

3.15 KEY CHANGING

- A. At the time of final acceptance of the work, void the construction key system and, in the presence of the Owner, demonstrate that the specified keying system is operating properly.

3.16 SCHEDULE

SET #100 - Existing

NOTE: Existing opening(s) - Re-use existing hardware.

SET #101

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Storeroom Lockset	45H-7D3H L/C	626	BE
1 Construction Core	Green		BE
1 Permanant Core	1C Series "0" bitted	626	BE
1 Wall Bumper	1270WX	626	TR
3 Door Silencers	1229 Series	GREY	TR

SET #102

6 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Semi Auto Flush Bolt Set	3825L X 3815L	626	TR
1 Dustproof Strike	3910 or 3910N (as required)	630	TR
1 Storeroom Lockset	45H-7D3H L/C	626	BE
1 Construction Core	Green		BE
1 Permanant Core	1C Series "0" bitted	626	BE
1 Wall Bumper	1270WX	626	TR
2 Door Silencers	1229 Series	GREY	TR

SET #103

6 Hinges	FBF168 4 1/2 X 4 1/2 NRP	US26D	ST
1 Exit Device	9949L-F-03 SNB	US26D	VO
1 Exit Device	9949EO-F SNB	US26D	VO
1 Rim Cylinder	12E-72 L/C	626	BE
1 Construction Core	Green		BE
1 Permanant Core	1C Series "0" bitted	626	BE
2 Closer	4040 XP SCUSH	AL	LC
1 Meeting Stile Astragal Set	9605A		NA
1 Gasketing	5050 @ Head & Jambs		NA

SET #104

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Privacy Set	45H-0LT3H	626	BE
1 Mop Plate	KM050 6" x 1" LDW x CSK B4E	630	TR
1 Wall Bumper	1270WX	626	TR
1 Gasketing	5050 @ Head & Jambs		NA
1 Solid Threshold	Per Detail		BE

**TURTLE ROCK COMMUNITY PARK
ACCESSIBILITY IMPROVEMENTS**

**RM ARCHITECTURE
JULY 2018**

SET #105

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Push Plate	1001-3	630	TR
1 Pull Plate	1018-3B	630	TR
1 Closer	4040 XP REG	AL	LC
1 Kick Plate	K0050 10" x 2" LDW x CSK B4E	630	TR
1 Floor Stop	1211	626	TR
3 Door Silencers	1229 Series	GREY	TR

SET #106

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Intruder Lockset	45H-7INL3H L/C	626	BE
2 Permanant Core	1C Series "0" bitted	626	BE
2 Construction Core	Green		BE
1 Closer	4040 XP SHCUSH	AL	LC
1 Mop Plate	KM050 6" x 1" LDW x CSK B4E	630	TR
1 Kick Plate	K0050 10" x 2" LDW x CSK B4E	630	TR
1 Wall Bumper	1270WX	626	TR
1 Threshold	Per Detail	AL	NA
3 Door Silencers	1229 Series	GREY	TR

SET #107

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Classroom Lockset	45H-7R3H L/C	626	BE
1 Permanant Core	1C Series "0" bitted	626	BE
1 Construction Core	Green		BE
1 Mop Plate	KM050 6" x 1" LDW x CSK B4E	630	TR
1 Kick Plate	K0050 10" x 2" LDW x CSK B4E	630	TR
1 Wall Bumper	1270WX	626	TR
3 Door Silencers	1229 Series	GREY	TR

SET #108

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Intruder Lockset	45H-7INL3H L/C	626	BE
2 Permanant Core	1C Series "0" bitted	626	BE
2 Construction Core	Green		BE
1 Wall Bumper	1270WX	626	TR
3 Door Silencers	1229 Series	GREY	TR

SET #109

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Storeroom Lockset	45H-7D3H L/C	626	BE
1 Permanant Core	1C Series "0" bitted	626	BE
1 Construction Core	Green		BE
1 Closer	4040 XP SHCUSH	AL	LC
1 Kick Plate	K0050 10" x 2" LDW x CSK B4E	630	TR
1 Wall Bumper	1270WX	626	TR
1 Gasketing	5050 @ Head & Jambs		NA

SET #110

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Office Lockset	45H-7AB3H L/C	626	BE
1 Permanant Core	1C Series "0" bitted	626	BE
1 Construction Core	Green		BE
1 Wall Bumper	1270WX	626	TR
3 Door Silencers	1229 Series	GREY	TR

SET #111

3 Hinges	FBF179 4 1/2 X 4 1/2 NRP	US26D	ST
1 Push Plate	1802-25-PH	630	TR
1 Pull Plate	1802-25-PL	630	TR
1 Closer	4040 XP REG	AL	LC
1 Floor Stop	1215CKU	626	TR
1 Kick Plate	K0050 10" x 2" LDW x CSK B4E	630	TR
1 Mop Plate	KM050 6" x 1" LDW x CSK B4E	630	TR
3 Door Silencers	1229 Series	GREY	TR
1 Solid Threshold	Per Detail		BE

SET #112

3 Hinges	FBF199 4 1/2 X 4 1/2 NRP	US26D	ST
1 Entrance Lockset	45H-7IND3H L/C	626	BE
1 Construction Core	Green		BE
1 Permanent Core	1C Series "0" bitted	626	BE
1 Cylinder Guard	K-24L Series		BE
1 Latch Protector	CLP-110	630	DJ
1 Closer	4040 XP EDA	AL	LC
1 Door Stop	1475	626	DJ
1 Perimeter Seal	160U @ Head & Jambs		NA
1 Gasketing	5050 @ Head & Jambs		NA
1 Door Sweep	C699A		NA
1 Threshold	Per Detail	AL	NA

SET #113

3 Hinges	FBF199 4 1/2 X 4 1/2 NRP	US26D	ST
1 Entrance Lockset	45H-7IND3H L/C	626	BE
1 Permanent Core	1C Series "0" bitted	626	BE
1 Construction Core	Green		BE
1 Cylinder Guard	K-24L Series		BE
1 Closer	4040 XP REG	AL	LC
1 Wall Bumper	1270WX	626	TR
1 Perimeter Seal	160U @ Head & Jambs		NA
1 Gasketing	5050 @ Head & Jambs		NA
1 Door Bottom	36EV		NA
1 Threshold	Per Detail	AL	NA

END OF SECTION

SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cementitious backer board.
- B. Gypsum wallboard.
- C. Joint treatment and accessories.
- D. Textured finish system.

1.02 RELATED REQUIREMENTS

- A. Section 07 9005 - Joint Sealers: Acoustic sealant.

1.03 REFERENCE STANDARDS

- A. ANSI A108.11 – American National Standard for Interior Installation of Cementitious Backer Units; 1999 (R2005).
- B. ANSI A118.9 – American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units; 1999 (R2005).
- C. ASTM C 475/C 475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2002 (Reapproved 2007).
- D. ASTM C 514 – Standard Specification for Nails for the Application of Gypsum Board; 2004.
- E. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 2007.
- F. ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2007.
- G. ASTM C 1396/C 1396M - Standard Specification for Gypsum Board; 2006a.F.GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2007.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on gypsum board, accessories, and joint finishing system.
- C. Mock-ups:
 - 1. At an area on the site where approved by the Architect, provide a mock-up panel of gypsum board wall surface.
 - a. Make mock-up panel approximately 48 inches square.
 - b. Provide one mock-up panel for each gypsum board finish to be used on the Work.
 - c. The mock-ups may be part of the Work and incorporated into the finished Work, when so approved by the Architect.
 - d. Revise as necessary to secure the Architect's approval.

2. The mock-ups panels, when approved by the Architect, will be used as datum points for comparison with the remainder of the Work of this Section for the purpose of acceptance or rejection.
3. If the mock-up panels are not permitted to be part of the finished Work, completely demolish and remove them from the job site upon completion and acceptance of the Work of this Section.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum five years of documented experience.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C 840 and GA-216.

2.02 GYPSUM BOARD MATERIALS

- A. Manufacturer's:
 1. USG: www.usg.com.
 2. Substitutions: See Section 01 6000 – Product Requirements.
- B. Gypsum Wallboard: ASTM C 1396/C 1396 M. sizes to minimize joints in place; ends square cut.
 1. Regular Type:
 - a. Application: Use for vertical surfaces, unless otherwise indicated.
 - b. Thickness: 5/8 inch.
 - c. Edges: Tapered.
 2. Ceiling Board: Special sag-resistant type.
 - a. Application: Ceilings, unless otherwise indicated.
 - b. Thickness: 5/8 inch.
 - c. Edges: Tapered
- C. Water-Resistant Gypsum Backing Board: ASTM C 1396/C 1396M: ends square cut.
 1. Application: Install in 'wet areas' where no tile is scheduled to be installed.
 2. Core Type: Regular.
 3. Thickness: 5/8 inch.
 4. Edges: Tapered.

2.03 FIBERGLASS REINFORCED BOARD MATERIALS

- A. Cementitious Backer Board: ANSI A118.9, aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces, 5/8 inch thick at all new wall tile locations.

2.03 ACCESSORIES

- A. Metal Cornerbead and Trim
 1. All metal cornerbead and trim, and all accessory items, shall be a system recommended by the manufacturer as compatible with the gypsum panels.
 2. Outside Corners: Bullnose corner
 3. Inside Corners: Inner core
 4. J Molding: J-Stop, L-Trim and J-Trim
 5. Casings (for all face edges of exposed gypsum board): US Gypsum No. 200-4 metal trim, U-shaped and of 2 inch size.

- 6. Edge Beads at perimeter of ceilings: Angle shapes with wings not less than 3/4 inch wide, with concealed wing perforated for nailing and exposed wing edge folded flat and factory finished white
- B. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
- C. Textured Finish Materials: Latex-based compound; plain.
- D. Fasteners:
 - 1. For fastening gypsum wallboard in place on metal studs and metal channels, use flat-head screws, shouldered, specially designed for use with power-driven tools, not less than 1 inch long, with self-tapping threads and self-drilling points.
 - 2. For fastening gypsum wallboard in place on wood, use 1 1/4 inch Type W bugle-head screws, or use annular ring type nails complying with ASTM C514 and of the length required by governmental agencies having jurisdiction.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

3.02 BOARD INSTALLATION

- A. Comply with ASTM C 840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
- C. Installation on Framing: Use screws for attachment of all gypsum board except face layer of non-rated double-layer assemblies, which may be installed by means of adhesive lamination.
- D. Cementitious Backing Board: Install over framing members where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.

3.03 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.

3.04 JOINT TREATMENT

- A. Finish gypsum board in accordance with levels defined in ASTM C 840, as follows:
 - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
 - 2. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
 - 3. Level 0: Temporary partitions and surfaces indicated to be finished in later stage of project.

- B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).

3.05 TEXTURE FINISH

- A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.
- B. Texture Required: Match existing adjacent.

3.06 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

SECTION 09 30 00 - CERAMIC TILE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Tile for wall and floor applications.
- B. Stone thresholds.
- C. Ceramic trim.

1.02 RELATED REQUIREMENTS

- A. Section 07 9005 - Joint Sealers.

1.03 REFERENCE STANDARDS

- A. ANSI A108 Series/A118 Series/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium); 2005.
 - 1. ANSI A108.1a - American National Standard Specifications for Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar; 2005.
 - 2. ANSI A108.1b - American National Standard Specifications for Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex Portland Cement Mortar; 1999 (R2005).
 - 3. ANSI A108.1c - Specifications for Contractors Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex Portland Cement Mortar; 1999 (R2005).
 - 4. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive; 1999 (R2005).
 - 5. ANSI A108.5 - American National Standard Specifications for Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar; 1999 (R2005).
 - 6. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and - Grouting Epoxy; 1999 (R2005).
 - 7. ANSI A108.8 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout; 1999 (R2005).
 - 8. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout; 1999 (R2005).
 - 9. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework; 1999 (R2005).
 - 10. ANSI A108.11 - American National Standard for Interior Installation of Cementitious Backer Units; 1999 (R2005).
 - 11. ANSI A108.13 - American National Standard for Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone; 2005.
 - 12. ANSI A118.1 - American National Standard Specifications for Dry-Set Portland Cement Mortar; 1999 (R2005).
 - 13. ANSI A118.4 - American National Standard Specifications for Latex-Portland Cement Mortar; 1999 (R2005).
 - 14. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation; 1999 (R2005).
 - 15. ANSI A118.7 - American National Standard Specifications for Polymer Modified

- Cement Grouts for Tile Installation; 1999 (R2005).
- 16. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units; 1999 (R2005).
- 17. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2008.

- B. TCA (HB) - Handbook for Ceramic Tile Installation; Tile Council of North America, Inc.; 2007/2008.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- C. Shop Drawings: Indicate perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.
 - 2. Extra Tile: 5 percent percent of each size, color, and surface finish combination.

1.05 QUALITY ASSURANCE

- A. Maintain one copy of TCA Handbook and ANSI A108 Series/A118 Series on site.
- B. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, with minimum 5 years of documented experience.
- C. Installer Qualifications: Company specializing in performing tile installation, with minimum of 5 years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.07 FIELD CONDITIONS

- A. Do not install adhesives in an unventilated environment.
- B. Maintain ambient and substrate temperature of 50 degrees F (10 degrees C) during installation of mortar materials.

PART 2 PRODUCTS

2.01 TILE

- A. Manufacturers: All products by the same manufacturer.
 - 1. Dal-Tile Corporation: www.daltile.com.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Tile Finish Schedule:
 - 1. Floor Tile:
 - a. Volume 1, VL78 Accent Brown STD, unpolished.
 - 2. Wall Tile:
 - a. Acoustic Tan STD, unpolished.

- b. Wall Tile (accent):
 - 1) Coastal Keystones, Treasure Island Block Random Mosaic.
 - 2) Accent Color 1 (indicated on drawings by hatched areas on interior elevations):
 - a) (50%) Cityline Kohl D171
 - b) (25%) Bronze Iridescent Glass Tile
 - c) (25%) Cane Iridescent Glass Tile
- C. Base Tile: ANSI A137.1 and as follows:
 - 1. Size and Shape: 8 inch x 6 inch.
 - 2. Thickness: 5/8 inch.
 - 3. Colors: To match wall tile.

2.02 TRIM AND ACCESSORIES

- A. Ceramic Trim: Matching bullnose, surface bullnose, double bullnose, cove base, and cove ceramic shapes in sizes coordinated with field tile.
 - 1. Manufacturer: Same as for tile.
- B. Thresholds: Marble, white or gray, honed finish; 2 inches (50 mm) wide by full width of wall or frame opening; 1/2 inch (12 mm) thick; beveled one long edge with radiused corners on top side; without holes, cracks, or open seams.
 - 1. Applications: Provide at the following locations:
 - a. At doorways where indicated.

2.03 MORTAR MATERIALS

- A. Manufacturers:
 - 1. Mapei.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Mortar Bed Materials: Portland cement, sand, and water.
- C. Mortar Bond Coat Materials:
 - 1. Dry-Set Portland Cement type: ANSI A118.1.
 - 2. Latex-Portland Cement type: ANSI A118.4.

2.04 GROUT MATERIALS

- A. Manufacturers:
 - 1. Mapei.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Standard Grout: Any type specified in ANSI A118.6 or A118.7.
 - 1. Colors at walls and wainscot: To be selected by Architect.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.
- C. Verify that sub-floor surfaces are dust-free and free of substances that could impair

bonding of setting materials to sub-floor surfaces.

- D. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.

3.02 PREPARATION

- A. Protect surrounding work from damage.
- B. Vacuum clean surfaces and damp clean.
- C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

3.03 INSTALLATION – GENERAL

- A. Install tile, thresholds, and stair treads and grout in accordance with applicable requirements of ANSI A108.1 through A108.13, manufacturer's instructions, and TCA Handbook recommendations.
- B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.
- E. Form internal angles square and external angles bullnosed.
- F. Install thresholds where indicated.
- G. Sound tile after setting. Replace hollow sounding units.
- H. Keep expansion joints free of adhesive or grout. Apply sealant to joints.
- I. Allow tile to set for a minimum of 48 hours prior to grouting.
- J. Grout tile joints. Use standard grout unless otherwise indicated.
- K. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

3.04 INSTALLATION – FLOORS (THINSET AND MORTAR BED METHODS)

- A. Over interior concrete substrates, install in accordance with TCA Handbook Method F111, with cleavage membrane, unless otherwise indicated.
 - 1. Where waterproofing membrane is indicated, with standard grout or no mention of grout type, install in accordance with TCA Handbook Method F121.
- B. Cleavage Membrane: Lap edge and ends.
- C. Waterproofing Membrane: Install as specified in ANSI A108.13.
- D. Mortar Bed Thickness: 5/8 inch, unless otherwise indicated.
- E. Over interior concrete substrates with no mortar bed, install in accordance with TCA

Handbook Method F113.

3.05 INSTALLATION – WALL TILE

- A. Wall Tile: Over cementitious backer board in accordance with TCA Handbook Method W244, thin-set with dry-set or latex-portland cement bond coat.

3.06 CLEANING

- A. Clean tile and grout surfaces.

3.07 PROTECTION

- A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

SECTION 09 90 00 - PAINTINGS AND COATINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints, stains, varnishes, and other coatings.
- C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
- D. Do Not Paint or Finish the Following Items:
 - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Floors, unless specifically so indicated.
 - 6. Glass.
 - 7. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test; 2009.
- C. ASTM D 4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials; 2007.
- D. GreenSeal GS-11 - Paints; 1993.E.SSPC (PM1) - Good Painting Practice: SSPC Painting Manual, Vol. 1; Society for Protective Coatings; Fourth Edition.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on all finishing products, including VOC content.
- C. Samples: Submit three drawdown samples of selected colors for review.
- D. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
- E. Certification: By manufacturer that all paints and coatings do not contain any of the prohibited chemicals specified; GreenSeal GS-11 certification is not required but if provided shall constitute acceptable certification.
- F. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.

2. Extra Paint and Coatings: 1 gallon (4 L) of each color; store where directed.
3. Label each container with color in addition to the manufacturer's label.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified approved by manufacturer.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Minimum Application Temperatures for Latex Paints: 45 degrees F (7 degrees C) for interiors; 50 degrees F (10 degrees C) for exterior; unless required otherwise by manufacturer's instructions.
- E. Minimum Application Temperature for Varnish Finishes: 65 degrees F (18 degrees C) for interior or exterior, unless required otherwise by manufacturer's instructions.
- F. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

1.07 EXTRA MATERIALS

- A. See Section 01 6000 - Product Requirements, for additional provisions.
- B. Supply 1 gallon (4 L) of each color; store where directed.
- C. Label each container with color in addition to the manufacturer's label.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.

- B. Paints:
 - 1. PPG Architectural Finishes: www.ppgideascales.com.
- C. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PAINTS AND COATINGS – GENERAL

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
 - 1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
 - 3. Supply each coating material in quantity required to complete entire project's work from a single production run.
 - 4. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Volatile Organic Compound (VOC) Content:
 - 1. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - b. Architectural coatings VOC limits of South Coast AQMD Rule 1113.
 - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- D. Colors: To be selected from manufacturer's full range of available colors.
 - 1. Selection to be made by Architect after award of contract.
 - 2. Color Schedules
 - a. The Architect will prepare a color schedule with samples for guidance in painting after color selection from samples submitted.
 - b. The Architect may select, allocate, and vary colors on different surfaces throughout the work, subject to the following:
 - 1) Interior Work: A maximum of six (6) different pigmented colors will be used, with variations for trim and wall surfaces and wainscots.
 - 3. Paints at Wet Areas
 - a. In toilet rooms and contiguous areas, add an approved fungicide to paints.
 - b. For oil based paints, use 1% phenylmercuric or 4% tetrachlorophenol.
 - c. For water emulsion and glue size surfaces, use 4% sodium tetrachlorophenate.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- D. Test shop-applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Gypsum Wallboard: 12 percent.
 - 2. Plaster and Stucco: 12 percent.
 - 3. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
 - 4. Exterior Wood: 15 percent, measured in accordance with ASTM D 4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or repair existing coatings that exhibit surface defects.
- D. Remove surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- E. Seal surfaces that might cause bleed through or staining of topcoat.
- F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- G. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
- H. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.
- I. Galvanized Surfaces to be Painted: Metal etch and solvent clean per SSPC-SP1 followed by thorough water rinsing. Brush blast or sand with 80-100 grit sand paper to remove pre-treatments and produce lightly etched surface. Apply a test patch of the coating system specified. Allow product(s) to cure at least one week before testing adhesion per ASTM D3359.
- J. Ferrous Metal Surfaces to be Painted: Prepare using SSPC SP-6 (NACE No. 3 - commercial blast cleaning).
- K. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
- L. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose

primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

- M. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied. Back prime concealed surfaces before installation.
- N. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

- A. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- B. Apply products in accordance with manufacturer's instructions.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Sand wood and metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for general requirements for field inspection.

3.05 SCHEDULE - PAINT SYSTEMS

- A. Interior:
 - 1. Gypsum Board:
 - a. Prime Coat: 6-2 SpeedHide Interior Quick-Drying Latex Sealer
 - b. Second Coat: 6-500 SpeedHide Interior Semi-Gloss Latex
 - c. Third Coat: 6-500 SpeedHide Interior Semi-Gloss Latex

END OF SECTION

SECTION 10 21 13 - TOILET PARTITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Toilet partition stalls
- B. Urinal screens

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets panels, connectors, and other materials.
- C. Shop Drawings: Indicate stall layout.
- D. Provide three samples, 4 inch by 4 inch, of each selected finish.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Protect panels and materials from damage with manufacturer's standard PVC film over components.

1.04 WARRANTY

- A. Provide manufacturers standard five year warranty against corrosion or discoloration.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Products listed are made by Accurate Partitions Group, Corp. Provide all compartments and screens from one manufacturer.
 - 1. Toilet compartments: Floor anchored with overhead brace.
 - 2. Urinal screens: Wall mounted
- B. Other Acceptable Manufacturers:
 - 1. Substitutions: Section 01 6000 - Product Requirements.

2.02 MATERIALS

- A. Doors, panels, pilasters, and urinal screens:
 - 1. Shall be manufactured with a resin impregnated honeycomb core that is bonded under pressure to the stainless steel with a non-toxic adhesive to ensure solid construction and sound attenuation. All the stainless steel components shall be assembled with a continuous roll-formed interlocking, 22 gauge stainless steel crown molding welded and ground smooth at the corners.
- B. Pilasters:
 - 1. Shall be 1 ¼ inch thick, 82 inches high, and fabricated from tension leveled 22 gauge, type 304 stainless steel bonded to sound deadening honeycomb core.

2.03 HARDWARE

- A. Door Hardware:
 - 1. Accurate gravity actuated, cam-action hinges that permit door to remain at desired position when not in use. Hinges shall be one-piece strike and keeper shall be chromium plated Zamac to resist corrosion. Hinges, strike and keeper shall be attached with tamper resistant barrel nuts and shoulder screws. Conceded latch assembly will allow for emergency access. Doors for accessible compartments shall be supplied with Accurate ADA paddle handles.
- B. Mounting Hardware:
 - 1. Chrome plated Zamac stirrup brackets shall be used to mount panels and pilasters. Mounting hardware shall be secured with tamper resistant screws.

2.04 ACCESSORIES

- A. Provide coat hook on each door of chromium plated Zamac to resist corrosion.

2.05 FINISH

- A. All components shall be type 304 stainless steel with a #4 finish.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.

3.02 PREPARATION

- A. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights and Locations: As required by accessibility regulations and as indicated on drawings
- D. Partition Installation:
 - 1. One-piece mounting fork and include an integral leveling bolt to provide proper height adjustment. Floor anchoring system shall be concealed by a type 304 stainless steel trim show with a #4 finish. Aluminum headrail with anti-grip profile shall provide overhead bracing and span all compartments and brace the end pilaster to the back wall.

END OF SECTION

SECTION 10 28 13 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Accessories for toilet rooms.
- B. Grab bars.

1.02 REFERENCE STANDARDS

- A. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2003.B.GSA CID A-A-3002 - Mirrors, Glass; U.S. General Services Administration; 1996.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Products listed are made by Bobrick, Inc. Provide all accessories from one manufacturer.
- B. Other Acceptable Manufacturers:
 - 1. Substitutions: Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.

3.02 PREPARATION

- A. Deliver inserts and rough-in frames to site for timely installation.
- B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights and Locations: As required by accessibility regulations and as indicated on drawings

END OF SECTION

SECTION 10 40 00 - IDENTIFYING DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior signage

1.02 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 1. Materials list of items proposed to be provided under this Section.
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
- C. Details of installation and anchorage sufficient to enable proper interface of the work of this Section with the work of other trades.
- D. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.03 QUALITY ASSURANCE

- A. Use adequate number of skilled workmen thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.
- B. Unless noted otherwise signage to be provided by one manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01 6000 – Product Requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Design is based on use of standard products manufactured by Architectural Signing, Inc., and trade names of that manufacturer are used herein.
- B. Substitutions: See Section 01 6000 – Product Requirements.

2.02 DOOR SIGNS

- A. Provide ASI series SPE toilet room door sign plaques with the following attributes:
 - 1. Size: 12" circle to signify unisex use complying with pertinent requirement of Title 24 of California Administrative Code, 1/4" thick.
 - 2. Type style: 'Times Roman'
 - 3. Plaque color: To be selected by Architect.
 - 4. Background color: To be selected by Architect.
 - 5. Frame finish: To be selected by Architect.
 - 6. Margins: Center/center.
 - 7. Mounting: Screw mounting – 60" high above finish floor.

- 8. Messages: Unisex symbols.
- 9. Text: Provide raised letters and Braille text to meet ADA standards and any other ADA required signs. Mount at +60" above finished floor to center of sign on latch side of door.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Install the work of this Section in strict accordance with the manufacturer's recommendations as approved by the Owner, using only the approved mounting materials, and locating all components firmly into position, level, and plumb.

END OF SECTION

SECTION 12 36 61 - SIMULATED STONE COUNTERTOPS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Lavatory countertops and integral sinks where noted.

1.02 RELATED REQUIREMENTS

- A. Section 07 9005 – Joint Sealers.

1.04 REFERENCE STANDARDS

- A. ASTM International Standards
 1. ASTM C97 – Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone; 2015
 2. ASTM C99 – Standard Test Method for Modulus of Rupture of Dimension Stone; 2015
 3. ASTM C170 – Standard Test Method for Compressive Strength of Dimension Stone; 2017
 4. ASTM C217 – Standard Test Method for Weather Resistance of Slate; 2015
 5. ASTM C482 – Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement Paste; 2014
 6. ASTM C484 – Standard Test Method for Thermal Shock Resistance of Glazed Ceramic Tile; 2014
 7. ASTM C501 – Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser; 2015
 8. ASTM C531 – Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes; 2012
 9. ASTM C880 – Standard Test Method for Flexural Strength of Dimension Stone; 2015
 10. ASTM C1026 – Standard Test Method for Measuring the Resistance of Ceramic and Glass Tile to Freeze-Thaw Cycling; 2018
 11. ASTM C1028 – Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method; 2006
 12. ASTM C1243 – Standard Test Method for Relative Resistance to Deep Abrasive Wear of Unglazed Ceramic Tile by Rotating Disc; 2015
 13. ASTM D256 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics; 2010
 14. ASTM D2047 – Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine; 2011
 15. ASTM E84 – Standard Test for Surface Burning Characteristics of Building Materials
- B. American National Standards Institute (ANSI)
 1. ANSI Z124.6 – Stain Resistance.
 2. ANSI/N 42.14 - Radiation
- C. National Electrical Manufacturers Association (NEMA)
 1. NEMA LD 3-3.5 – Boiling Water Resistance
 2. NEMA LD 3-3.6 – High Temperature Resistance
- D. European Standards (EN)
 1. EN 14617-1 – Determination of Apparent Density and Water Absorption

2. EN 14617-4 – Determination of Abrasion Resistance
 3. EN 14617-5 – Determination of Freeze/Thaw Resistance
 4. EN 14617-9 – Determination of Impact Resistance
 5. EN 14617-12 – Determination of Dimensional Stability
 6. EN 14617-13 – Determination of Electrical Resistivity
 7. EN 14617-15 – Determination of Compression Strength
- E. International Organization for Standardization (ISO)
1. ISO 9002 – Model for Quality Assurance in Production
 2. ISO 14001 – Environmental Management Systems
- F. Other Reference Standards
1. NSF – ANSI/NSF Standard 51
 2. MEA – New York Materials and Equipment Acceptance
 3. OHSAS – 18001 – Occupational Health and Safety System
 4. Greenguard – Federal, State, and Municipal, Children and Schools
 5. HPD – Health Product Declaration
 6. SCS – Certified Recycled Content
 7. Kosher

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide material specifications and maintenance instructions.
- C. Shop Drawings: Indicate shapes, sizes, and attachment details to other portions of the work.
1. Field verify dimensions
 2. Indicate locations and dimensions of cut outs
 3. Indicate required locations of support and blocking members
 4. Indicate edge profiles
 5. Indicate installation details and methods
- D. Samples: Submit three color samples, 3x3 inch in size, illustrating specified colors and finishes specified herein.

1.04 QUALITY ASSURANCE

- A. Fabricator Qualifications: Firm shall have five years experience fabricating architectural stone and shall have water-cooled cutting tools and be certified in writing by the manufacturer.
- B. Manufacturer Qualifications: Manufacturer shall be ISO 9002 and ISO 14001 certified.
- C. Materials to be fabricated and installed by an installer/fabricator certified by the manufacturer.
- D. Installer Qualifications: Firm shall have five years experience installing architectural stone and shall be certified by the manufacturer.
- E. Adhesives and sealants used to install solid surface materials are to carry the Greenguard label.
- F. The following Class A (Class 1) surface burning characteristics provided are evidenced by testing identical products against ASTM E84 (UL 273), or other testing, and inspected by an agency acceptable to authorities having jurisdiction.

1. Flame Spread Index: 25 or less
 2. Smoke Developed Index: 450 or less
- G. Allowable Tolerances
1. Variation in component sizes plus minus 1/8 inches over a ten foot length
 2. Location of openings: Plus minus 1/8 inches from indicated location
 3. Maximum 1/8 inch clearance between solid surface and each wall.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Observe manufacturer's recommendations and handle accordingly in order to prevent breakage or damage.
- B. Brace parts if necessary.
- C. Transport in the near-vertical position with finished face turned toward finished face.
- D. Do not allow finished surfaces to rub during shipping or handling.
- E. Store in racks in near-vertical position.
- F. Prevent warpage and breakage
- G. Store inside away from direct exposure to sun
- H. Store between 25 degree F and 130 degree F

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers:
 1. Caesarstone Quartz Surfacing, 877 978.2789; www.caesarstoneus.com
 2. Substitutions: See Section 01 6000 - Product Requirements

2.01 SOLID SURFACE PRODUCTS

- A. Lavatory Countertops:
 1. Countertops are to be of 3/4 inch sheets with waterfall edge details. At 'wet' area locations provide no drip edge as indicated on the Drawings. Provide complete at all countertops with a 4 inch coved integral splash.
 2. Provide in lengths of between 120 inches and 130 inches in order to minimize seams and joints in installation.
- B. Color and Finish Schedule:
 1. 2230 – Linen, honed finish.
- C. Accessories:
 1. Joint Adhesive: Manufacturer's standard two-part adhesive kit to create inconspicuous, non-porous joints.

2.02 FABRICATION OF SOLID SURFACE PRODUCTS

- A. Shop Assembly: Observe proper safety procedures and comply with manufacturer's instruction and shop drawings.
- B. Layout: Layout joints to minimize joints and to avoid L-shaped pieces of surfacing.

- C. Color Match: Materials used throughout the project shall be from the same batch and bear labels with the same batch numbers. Visually inspect materials to be used for adjacent pieces, to ensure acceptable color match.
- D. Cut and polish with water cooled power tools.
- E. Cutouts:
 - 1. Cutouts shall have 3/8 inch minimum, inside corner radius. Inside corners shall be reinforced in an acceptable manner to prevent cracking.
 - 2. Polish edges where they will be exposed in finished work.
 - 3. If the remaining material outside a cutout is less than three inches wide, reinforce area by laminating it with a strip of material that is the same as the product specified.
 - 4. Obtain plumbing cutouts from other trades.
- F. Laminations: Laminate layers of material as required to create built-up edges, trim, and other areas requiring additional thickness.

2.03 OTHER MATERIALS

- A. All other materials, anchorages, and accessories, not specifically described but required for a complete and proper installation of solid surface polymer assemblies, as recommended by the manufacturer, subject to the approval of the Architect.
- B. Provide structural grade silicone, or epoxy adhesives, as recommend by manufacturer for application and per conditions of use.
 - 1. Acceptable silicone manufacturers:
 - a. Dow Corning
 - b. GE Sealants and Adhesives
 - c. Substitutions: See Section 01 6000 - Product Requirements
 - 2. Acceptable epoxy manufacturers:
 - a. Akemi North America
 - b. Bonstone Materials Corporation
 - c. Tenax USA
- C. Stone Adhesive:
 - 1. Provide epoxy, or polyester adhesive, recommend by manufacturer for application and conditions of use.
 - a. Akemi North America
 - b. Bonstone Materials Corporation
 - c. Tenax USA
 - 2. Colors: Provide adhesives should be tinted to match adjacent solid surface materials.
- D. Joint Sealants:
 - 1. Clear silicone sealant, as recommend by manufacturer for application and per conditions of use.
 - 2. Provide anti-bacterial type in wet areas such as restrooms.
 - a. Dow Corning
 - b. GE Sealants
 - c. Substitutions: See Section 01 6000 - Product Requirements
- E. Solvent: Product recommended by adhesive manufacturer to clean surface of quartz surfacing to assure adhesion of adhesives and sealants.
- B. Cleaning Agents: Non-abrasive, low pH cleansers.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspection:
 - 1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
 - 2. Verify that lavatory counter may be installed in accordance with the approved design, all pertinent codes and regulations and the referenced standards.
 - 3. Verify that substrate surfaces are smooth within a maximum variation of 1/8 inch per 10 feet and are ready to receive work.
- F. Discrepancies:
 - 1. In the event of discrepancy, immediately notify the Architect.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions..
- B. Install components plumb and level, scribed to adjacent finishes, in accordance with approved shop drawings and product installation data.
- C. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work. Keep components and hands clean when making joints.
- D. Provide coved backsplashes and coved side-splashes as indicated on the Drawings. Adhere to countertops using manufacturer's standard color-matched silicone sealant.
- E. Keep components and hand clean during installation. Remove adhesives, sealants, and other stains.
- F. Make plumbing connections to sinks in accordance with Division 22 – Plumbing.

END OF SECTION

SECTION 14 42 16 - VERTICAL WHEELCHAIR LIFT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Unenclosed, self-contained vertical platform wheelchair lift for interior and exterior

1.02 RELATED REQUIREMENTS

- A. Section 05 4000 – Cold Formed Metal Framing.
- B. Section 09 2116 – Gypsum Board Assemblies.
- C. Division 26 – Pertinent sections for electrical power service and wiring connection.

1.03 REFERENCE STANDARDS

- A. ASME A17.1 – Safety Code for Elevators and Escalators.
- B. ASME A17.5 – Elevator and Escalator Electrical Equipment.
- C. ASME A18.1 – Safety Standard for Platform Lifts and Stairway Chairlifts.
- D. CSA B44 – Safety Code for Elevators and Escalators.
- E. CSA B355 – Lifts for Persons with Physical Disabilities.
- F. ICC/ANSI A117.1 – Accessible and Useable Buildings and Facilities.
- G. NFPA 70 – National Electrical Code

1.04 REGULATORY REQUIREMENTS

- A. Provide platform lifts in accordance with:
 - 1. CSA B355 – Lifts for Persons with Physical Disabilities.
 - 2. CSA B44.1/ASME A17.5 – Elevator and Escalator Electrical Equipment
 - 3. CSA – National Electrical Code.

1.05 SUBMITTALS

- B. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- C. Product Data: Provide manufacturers' data sheets on each product to be used including:
 - 1. Submit manufacturer's installation instructions, including preparation, storage, and handling requirements.
 - 2. Include complete descriptions of performance and operating characteristics.
- D. Shop Drawings: Indicate specific installation conditions as shown on the drawings to include:
 - 1. Show typical details of assembly, erection, and anchorage.
 - 2. Include wiring diagrams for power and control.
 - 3. Show complete layout and location of equipment, including required clearances to other materials.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm with minimum 10 years experience in manufacturing of vertical platform lifts, with evidence of experience with similar installations of type selected.
- B. Installer Qualifications: Licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts, have qualified persons available to ensure fulfillment of maintenance and callback service without unreasonable loss of time in reaching project site.

1.07 FIELD CONDITIONS

- A. Coordinate with other trades conditions are ready to receive this portion of the work.
- B. Do not use wheelchair lift for hoisting materials or personnel during construction period.

1.08 WARRANTY

- A. Warranty: Manufacturer shall warrant the wheelchair lift materials and workmanship for two years at date of substantial completion.
- B. Extended Warranty: Provide an extended manufacturer's warranty for the entire warranty period covering the wheelchair lift materials and workmanship extended beyond the initial one year warranty period for a time of five additional years. Preventive Maintenance agreement required.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers:
 - 1. Garaventa Lift, United States; 800 663.6556; www.garaventlift.com
 - a. Model GVL-OP-42 (45 inches maximum lifting height)
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 UNENCLOSED VERTICAL WHEELCHAIR LIFT

- A. Capacity: 750 lbs rated capacity.
- B. Platform Size and Nominal Clearance:
 - 1. Standard: 36 inches by 48 7/8 inches clear platform width
- C. Platform Configuration: Straight through, front and rear opening.
- D. Landing Openings:
 - 1. Gates shall be self closing type.
 - 2. Platform gate travels with platform and opens at lower landing.
 - 3. Upper landing gate installed at upper landing.
 - 4. Gate Height: 42 1/8 inches
- E. Power Gate Operators:
 - 1. Location:
 - a. Platform Gate: Travels with platform and opens lower landing.
 - b. Upper landing gate.
 - 2. Automatically opens the gate when platform arrives at a landing. Will also open at landing by pressing call button.

3. ADA compliant and obstruction sensitive.
 4. Low voltage, 24 VDC with all wiring concealed.
- F. Lift Components:
1. Machine Tower: Custom aluminum extrusion
 2. Base Frame: Structural steel
 3. Platform Side Wall Panels: 16 gauge galvanized steel sheet.
 4. Platform Access Ramp: 12 gauge galvanized steel plates, slip resistant surfaces.
 - a. Ramp: Automatic folding type.
 5. Side Guard Panels: 42 1/8 inches high mounted on platform.
 6. Outdoor Protection: Lift shall include modifications recommended by manufacturer for reliable performance in outdoor climate of project site.
- G. Base Mounting at Lower Landing:
1. Floor Mount: Base of lift shall be mounted on the floor surface of the lower landing. For access onto the platform provide a ramp of 16 gauge galvanized steel sheet with a slip resistant surface.
- H. Leadscrew Drive:
1. Drive Type: Self-lubricating acme screw drive.
 2. Emergency Operation: Manual hand wheel device to raise or lower platform.
 3. Battery Powered Emergency Lowering: Battery powered platform lowering device that automatically activates in the event of power failure. Allows passenger to drive platform downward to lower landing. Does not operate lift in up direction.
 4. Safety Devices: Integral safety nut assembly with safety switch.
 5. Travel Speed: 10 fpm
 6. Motor: 2hp
 7. Power Supply: As indicated on electrical plans
- I. Hydraulic Drive:
1. Drive Type: Chain hydraulic
 2. Emergency Operation: Manual device to lower platform and battery auxiliary power to raise or lower platform.
 3. Safety Devices: Slack chain safety device.
 4. Travel Speed: 17 fpm
 5. Motor: 3hp, 24 volts DC
 6. Power Supply: As indicated on electrical plans.
- J. Platform Controls: 24 VDC control circuit with the following features:
1. Direction Controls: Illuminated tactile and constant pressure elevator-style buttons with dual platform courtesy lights and safety light.
 2. Illuminated and audible emergency stop switch shuts off power to lift and activates audio alarm with battery back up.
 3. Keyless operation.
- K. Safety Devices and Features:
1. Grounded electrical system with upper, lower, and final switches.
 2. Tamper resistant interlock to electronically monitor that the gate is in the closed position and the lock is engaged before lift can move from landing.
 3. Electrical disconnect shall shut off power to the lift.
 4. Under platform safety pan with five waterproof safety switches to detect obstruction under platform.
- L. Finishes:
1. Aluminum Extrusions shall be an anodized finish: Champagne
 2. Ferrous Components: Electrostatically applied baked powder finish, fine textured. Color to be Stain Grey, RAL 7030.

3. Lift Finish: Baked powder coat finish as selected by the Architect from manufacturer's full line of RAL color options.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify required landings and openings are of correct size and within tolerances.
- B. Verify electrical rough-in is at correct location.
- C. Do not begin installation until substrates have been properly prepared.
- D. If substrate preparation is the responsibility of another installer or sub-contractor, notify Owner of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Protect surrounding work from damage.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best results for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install platform lifts in accordance with applicable regulatory requirements including CSA B355, and manufacturer's instructions.
- B. Install system components and connect to building utilities.
- C. Accommodate equipment in space indicated.
- D. Startup equipment in accordance with manufacturer's instructions.
- E. Adjust for smooth operation.

3.04 FIELD QUALITY CONTROL

- A. Perform tests in compliance with CSA B355 and required by authorities having jurisdiction.
- B. Schedule tests with agencies and with Architect, Owner, and General Contractor present.

3.05 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch up, repair, or replace damaged products prior to Substantial Completion.
- C. Do not allow vertical chair lift to be used for any purposes to transport construction materials or personnel.

END OF SECTION

SECTION 22 05 03 - PIPES AND TUBES FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Pipe and pipe fittings for the following systems:
 - 1. Domestic water piping, above grade.
 - 2. Sanitary sewer piping, within 5 feet of building.
 - 3. Sanitary sewer piping, above grade.
 - 4. Underground pipe markers.
 - 5. Bedding and cover materials.
- B. Related Sections:
 - 1. Section 07 84 00 - Firestopping: Product requirements for firestopping for placement by this section.
 - 2. Section 08 31 13 - Access Doors and Frames: Product requirements for access doors for placement by this section.
 - 3. Section 09 90 00 - Painting and Coating: Product and execution requirements for painting specified by this section.
 - 4. Section 22 05 23 - General-Duty Valves for Plumbing Piping: Product requirements for valves for placement by this section.
 - 5. Section 22 05 29 - Hangers and Supports for Plumbing Piping and Equipment: Product requirements for pipe hangers and supports [and firestopping] for placement by this section.
 - 6. Section 22 07 00 - Plumbing Insulation: Product requirements for piping insulation for placement by this section.

1.02 REFERENCES

- A. American Society of Mechanical Engineers:
 - 1. ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.
 - 2. ASME B16.3 - Malleable Iron Threaded Fittings.
 - 3. ASME B16.4 - Gray Iron Threaded Fittings.
 - 4. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings.
 - 5. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
 - 6. ASME B16.23 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV).
 - 7. ASME B16.29 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV.
 - 8. ASME B31.9 - Building Services Piping.
 - 9. ASME B36.10M - Welded and Seamless Wrought Steel Pipe.
 - 10. ASME Section IX - Boiler and Pressure Vessel Code - Welding and Brazing Qualifications.
- B. ASTM International:
 - 1. ASTM A47/A47M - Standard Specification for Ferritic Malleable Iron Castings.
 - 2. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 3. ASTM A74 - Standard Specification for Cast Iron Soil Pipe and Fittings.
 - 4. ASTM A234/A234M - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
 - 5. ASTM A395/A395M - Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.
 - 6. ASTM A536 - Standard Specification for Ductile Iron Castings.
 - 7. ASTM A746 - Standard Specification for Ductile Iron Gravity Sewer Pipe.
 - 8. ASTM A888 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
 - 9. ASTM B32 - Standard Specification for Solder Metal.
 - 10. ASTM B88 - Standard Specification for Seamless Copper Water Tube.

11. ASTM B306 - Standard Specification for Copper Drainage Tube (DWV).
12. ASTM C564 - Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.
13. ASTM D1248 – Standard Specification for Polyethylene Plastics Molding and Extrusion Material.

C. American Welding Society:

1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.
2. AWS D1.1 - Structural Welding Code - Steel.

D. American Water Works Association:

1. AWWA C104 - American National Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
2. AWWA C105 - American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
3. AWWA C110 - American National Standard for Ductile-Iron and Grey-Iron Fittings, 3 in. through 48 in. (75 mm through 1200 mm), for Water and Other Liquids.
4. AWWA C111 - American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
5. AWWA C151 - American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water.

E. Cast Iron Soil Pipe Institute:

1. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
2. CISPI 310 - Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

1.03 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate layout of piping systems, including equipment, critical dimensions, and sizes. Submit shop drawings sealed by registered professional engineer.
- C. Product Data: Submit data on pipe materials and fittings. Submit manufacturers catalog information.
- D. Design Data: Indicate pipe sizes. Indicate pipe sizing methods. Indicate calculations used. Submit sizing methods and calculations sealed by registered professional engineer.
- E. Welders' Certificate: Include welders' certification of compliance with ASME Section IX.

1.04 QUALITY ASSURANCE

- A. Perform Work in accordance with ASME B31.9 code for installation of piping systems and ASME Section IX for welding materials and procedures.
- B. Maintain one copy of each document on site.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum 5 years documented experience approved by manufacturer.
- C. Design piping systems with pipe hangers and supports under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of California.

1.06 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Furnish temporary end caps and closures on piping and fittings. Maintain in place until installation.
- C. Protect piping from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.
- B. Do not install underground piping when bedding is wet or frozen.

1.09 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.10 COORDINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.
- B. Coordinate installation of buried piping with trenching.

PART 2 - PRODUCTS

2.01 DOMESTIC WATER PIPING, ABOVE GRADE

- A. Copper Tubing: ASTM B88, Type L, hard drawn.
 - 1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze.
 - 2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F.

2.02 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET OF BUILDING

- A. Cast Iron Soil Pipe: ASTM A888 plain ends.
 - 1. Fittings: Cast iron, ASTM A888.
 - 2. Joints: CISPI HSN compression type with ASTM C564 neoprene gaskets or lead and oakum.
 - 3. Acceptable Manufacturers: ABI, Charlotte and Tyler Pipe.
- B. Cast Iron Pipe: CISPI 301, hub-less.
 - 1. Fittings: Cast iron, CISPI 301.
 - 2. Joints: CISPI 310, neoprene gasket and stainless steel clamp and shield assemblies.
 - 3. Acceptable Manufacturers: ABI, Charlotte and Tyler Pipe.
- C. Polyethylene Encasement: ASTM D1248 polyethylene tube or sheet form to encase cast iron pipe, with minimum 0.008 inch (0.20 mm) thickness. Install encasement as per ASTM A74 and manufacturer's recommendations.

2.03 SANITARY SEWER PIPING, ABOVE GRADE

- A. Cast Iron Pipe: ASTM A888, service weight.
 - 1. Fittings: Cast iron, ASTM A888.
 - 2. Joints: ASTM C564, rubber gasket joint devices or lead and oakum.
 - 3. Acceptable Manufacturers: ABI, Charlotte and Tyler Pipe.
- B. Cast Iron Pipe: CISPI 301, hub-less, service weight.
 - 1. Fittings: Cast iron, CISPI 301.
 - 2. Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies.
 - 3. Acceptable Manufacturers: ABI, Charlotte and Tyler Pipe.
- C. Copper Tube: ASTM B306, DWV.
 - 1. Fittings: ASME B16.23, cast bronze, or ASME B16.29, wrought copper.
 - 2. Joints: Solder, lead free, ASTM B32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F.

2.04 UNDERGROUND PIPE MARKERS

- A. Manufacturers:
 - 1. Sention.
 - 2. Brady.
 - 3. Substitutions: Section 01 60 00 - Product Requirements.
- B. Plastic Ribbon Tape: Bright colored, continuously printed, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service.
- C. Trace Wire: Magnetic detectable conductor, bare.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify excavations are to required grade, dry, and not over-excavated.
- C. Verify trenches are ready to receive piping.

3.02 PREPARATION

- A. Ream pipe and tube ends. Remove burrs.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare piping connections to equipment with flanges or unions.
- D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

3.03 INSTALLATION - BURIED PIPING SYSTEMS

- A. Verify connection size, location, and invert are as indicated on Drawings.
- B. Establish elevations of buried piping with not less than 1 ft of cover.
- C. Establish minimum separation of 1 foot from other services piping in accordance with CPC code.

- D. Install pipe to elevation as indicated on Drawings or as required.
- E. Place bedding material at trench bottom to provide uniform bedding for piping, level bedding materials in one continuous layer not exceeding 6 inches compacted depth; compact to 95 percent maximum density.
- F. Install pipe on prepared bedding.
- G. Route pipe in straight line.
- H. Install pipe to allow for expansion and contraction without stressing pipe or joints.
- I. Install shutoff and drain valves at locations indicated on Drawings in accordance with this Section.
- J. Install plastic ribbon tape continuous over top of pipe, 6 inches above pipe line.
- K. Install trace wire continuous over top of pipe, 6 inches above pipe line.
- L. Pipe Cover and Backfilling:
 - 1. Maintain optimum moisture content of fill material to attain required compaction density.
 - 2. After hydrostatic test, evenly backfill entire trench width by hand placing backfill material and hand tamping in 6 inches compacted layers to 12 inches minimum cover over top of jacket. Compact to 95 percent maximum density.
 - 3. Evenly and continuously backfill remaining trench depth in uniform layers with backfill material.
 - 4. Do not use wheeled or tracked vehicles for tamping.

3.04 INSTALLATION - ABOVE GROUND PIPING

- A. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
- B. Install piping to maintain headroom without interfering with use of space or taking more space than necessary.
- C. Group piping whenever practical at common elevations.
- D. Sleeve pipe passing through partitions, walls and floors. Refer to Section 22 05 29.
- E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
- F. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings. Refer to Section 22 07 00.
- G. Provide clearance for installation of insulation and access to valves and fittings.
- H. Provide access where valves and fittings are not accessible. Coordinate size and location of access doors with Section 08 31 13.
- I. Install non-conducting dielectric connections wherever jointing dissimilar metals.
- J. Establish invert elevations, slopes for drainage to ¼ inch per foot minimum. Maintain gradients unless otherwise indicated.
- K. Slope piping and arrange systems to drain at low points.
- L. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

- M. Where pipe support members are welded to structural building framing, scrape, brush clean and apply one coat of zinc rich primer to welding.
- N. Prepare pipe, fittings, supports and accessories not prefinished, ready for finish painting.
- O. Install valves with steams upright or horizontal, not inverted.
- P. Provide one plug cock wrench for every ten plug cocks sized 2 inches and smaller, minimum of one. Provide each plug cock sized 2-1/2 inches and larger with a wrench with set screw.
- Q. Provide firestopping at fire rated walls, floors or ceiling assemblies under provisions of Division 7.
- R. Install piping penetrating roofed areas to maintain integrity of roof assembly.
- S. Install valves in accordance with Section 22 05 23.
- T. Insulate piping. Refer to Section 22 07 00.

3.05 INSTALLATION - DOMESTIC WATER PIPING SYSTEMS

- A. Install domestic water piping system in accordance with CPC.

3.06 INSTALLATION - SANITARY WASTE AND VENT PIPING SYSTEMS

- A. Install sanitary waste and vent piping systems in accordance with CPC.

3.07 APPLICATION

- A. Install unions downstream of valves and at equipment or apparatus connections.
- B. Install brass male adapters each side of valves in copper piped system. Sweat solder adapters to pipe.
- C. Install ball valves for shut-off and to isolate equipment or part of system. Install access panel in hard ceilings and or walls as indicated on plans.
- D. Install globe or ball valves for throttling, bypass or manual flow control services. Install access panel in hard ceilings and or walls as indicated on plans.

3.08 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Test domestic water piping system in accordance with applicable code.
- C. Test sanitary waste and vent piping system in accordance with applicable code.
- D. Test storm drainage piping system in accordance with applicable code.
- E. Test for Compressed Air Piping Leak Test: Prior to initial operation, clean and test compressed air piping in accordance with ASME B31.9.

3.09 CLEANING

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for cleaning.

3.10 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

- A. Disinfection of potable water system shall comply with ANSI/AWWA C651-92.
- B. When hot and cold water piping, including fixtures, have been installed, tested and accepted. Disinfect the system using any of the three methods of chlorination explained in AWWA C651-92 standard.
- C. The basic disinfection procedure shall consist of:
 - 1. Preventing contaminating materials from entering the water piping system during storage, construction or repair.
 - 2. Removing, by flushing or other means, those materials that may have entered the water piping system.
 - 3. Chlorinating any residual contamination that may remain, and flushing the chlorinated water from the piping system.
 - 4. Protecting the existing distribution system from backflow due to hydrostatic pressure test and disinfection procedures.
 - 5. Determining the bacteriological quality by laboratory test after disinfection. At least one water sample from the existing distribution system shall be tested.
 - 6. Final connection of the water piping system to the active distribution system.
- D. Submit Record of Compliance: The record of compliance shall be the bacteriological test results certifying the water sampled from the water piping system to be free of coliform bacteria contamination, and to be equal to or better than the bacteriologic water quality in the distribution system.

END OF SECTION

SECTION 22 05 29 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Pipe hangers and supports.
 - 2. Hanger rods.
 - 3. Inserts.
 - 4. Flashing.
 - 5. Sleeves.
 - 6. Mechanical sleeve seals.
 - 7. Formed steel channel.
 - 8. Firestopping relating to plumbing work.
 - 9. Firestopping accessories.
 - 10. Equipment bases and supports.
- B. Related Sections:
 - 1. Section 03 10 00 - Concrete Forming and Accessories: Execution requirements for placement of inserts sleeves in concrete forms specified by this section.
 - 2. Section 03 30 00 - Cast-In-Place Concrete: Execution requirements for placement of concrete housekeeping pads specified by this section.
 - 3. Section 07 84 00 - Firestopping: Product requirements for firestopping for placement by this section.
 - 4. Section 07 90 00 - Joint Protection: Product requirements for sealant materials for placement by this section.
 - 5. Section 09 90 00 - Painting and Coating: Product and execution requirements for painting specified by this section.
 - 6. Section 22 05 03 - Pipes and Tubes for Plumbing Piping and Equipment: Execution requirements for placement of hangers and supports specified by this section.

1.02 REFERENCES

- A. American Society of Mechanical Engineers:
 - 1. ASME B31.1 - Power Piping.
 - 2. ASME B31.9 - Building Services Piping.
- B. ASTM International:
 - 1. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
 - 2. ASTM E119 - Method for Fire Tests of Building Construction and Materials.
 - 3. ASTM E814 - Test Method of Fire Tests of Through Penetration Firestops.
 - 4. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
 - 5. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems.
- C. American Welding Society:
 - 1. AWS D1.1 - Structural Welding Code - Steel.
- D. FM Global:
 - 1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.
- E. Manufacturers Standardization Society of the Valve and Fittings Industry:
 - 1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
 - 2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
 - 3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

- F. Underwriters Laboratories Inc.:
 - 1. UL 263 - Fire Tests of Building Construction and Materials.
 - 2. UL 723 - Tests for Surface Burning Characteristics of Building Materials.
 - 3. UL 1479 - Fire Tests of Through-Penetration Firestops.
 - 4. UL 2079 - Tests for Fire Resistance of Building Joint Systems.
 - 5. UL - Fire Resistance Directory.
- G. Intertek Testing Services (Warnock Hersey Listed):
 - 1. WH - Certification Listings.

1.03 DEFINITIONS

- A. Firestopping (Through-Penetration Protection System): Sealing or stuffing material or assembly placed in spaces between and penetrations through building materials to arrest movement of fire, smoke, heat, and hot gases through fire rated construction.

1.04 SYSTEM DESCRIPTION

- A. Firestopping Materials: ASTM E119, ASTM E814, UL 263 and UL 1479 to achieve fire ratings as noted on Drawings for adjacent construction, but not less than 1 hour fire rating.
- B. Surface Burning: ASTM E84, UL 723 with maximum flame spread / smoke developed rating of 25/450.
- C. Firestop interruptions to fire rated assemblies, materials, and components.

1.05 PERFORMANCE REQUIREMENTS

- A. Firestopping: Conform to FM or UL for fire resistance ratings and surface burning characteristics.
- B. Firestopping: Provide certificate of compliance from authority having jurisdiction indicating approval of materials used.

1.06 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate system layout with location including critical dimensions, sizes, and pipe hanger and support locations and detail of trapeze hangers.
- C. Product Data:
 - 1. Hangers and Supports: Submit manufacturers catalog data including load capacity.
 - 2. Firestopping: Submit data on product characteristics, performance and limitation criteria.
- D. Firestopping Schedule: Submit schedule of opening locations and sizes, penetrating items, and required listed design numbers to seal openings to maintain fire resistance rating of adjacent assembly.
- E. Design Data: Indicate load carrying capacity of trapeze, multiple pipe, and riser support hangers. Indicate calculations used to determine load carrying capacity of trapeze, multiple pipe, and riser support hangers. Submit sizing methods and calculations sealed by a registered professional engineer.
- F. Manufacturer's Installation Instructions:
 - 1. Hangers and Supports: Submit special procedures and assembly of components.
 - 2. Firestopping: Submit preparation and installation instructions.
- G. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

- H. Engineering Judgements: For conditions not covered by UL or WH listed designs, submit judgements by licensed professional engineer suitable for presentation to authority having jurisdiction for acceptance as meeting code fire protection requirements.

1.07 QUALITY ASSURANCE

- A. Through Penetration Firestopping of Fire Rated Assemblies: UL 1479 or ASTM E814 with 0.10 inch water gage minimum positive pressure differential to achieve fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.
 - 1. Wall Penetrations: Fire F-Ratings as indicated on Drawings, but not less than 1-hour.
 - 2. Floor Penetrations: Fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.
 - a. Floor Penetrations Within Wall Cavities: T-Rating is not required.
- B. Through Penetration Firestopping of Non-Fire Rated Floor Assemblies: Materials to resist free passage of flame and products of combustion.
 - 1. Noncombustible Penetrating Items: Noncombustible materials for penetrating items connecting maximum of three stories.
 - 2. Penetrating Items: Materials approved by authorities having jurisdiction for penetrating items connecting maximum of two stories.
- C. Fire Resistant Joints in Fire Rated Floor, Roof, and Wall Assemblies: ASTM E1966 or UL 2079 to achieve fire resistant rating as indicated on Drawings for assembly in which joint is installed.
- D. Fire Resistant Joints Between Floor Slabs and Exterior Walls: ASTM E119 with 0.10 inch water gage minimum positive pressure differential to achieve fire resistant rating as indicated on Drawings for floor assembly.
- E. Surface Burning Characteristics: 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.
- F. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.
- G. Maintain one copy of each document on site.

1.08 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum 3 years documented experience.

1.09 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Accept materials on site in original factory packaging, labeled with manufacturer's identification.

- C. Protect from weather and construction traffic, dirt, water, chemical, and damage, by storing in original packaging.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.
- B. Do not apply firestopping materials when temperature of substrate material and ambient air is below 60 degrees F.
- C. Maintain this minimum temperature before, during, and for minimum 3 days after installation of firestopping materials.

1.12 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.13 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for pipe hangers and supports.

PART 2 - PRODUCTS

2.01 PIPE HANGERS AND SUPPORTS

- A. Manufacturers:
 - 1. Carpenter & Paterson Inc.
 - 2. Creative Systems Inc.
 - 3. Flex-Weld, Inc.
 - 4. Glope Pipe Hanger Products Inc.
 - 5. Michigan Hanger Co.
 - 6. Superior Valve Co.
 - 7. Tolco.
 - 8. Substitutions: Section 01 60 00 - Product Requirements.
- B. Plumbing Piping - DWV:
 - 1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69, or MSS SP89.
 - 2. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Carbon steel, adjustable swivel, split ring.
 - 3. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
 - 4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
 - 5. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
 - 6. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
 - 7. Vertical Support: Steel riser clamp.
 - 8. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
 - 9. Copper Pipe Support: Copper-plated, carbon-steel adjustable, ring.
- C. Plumbing Piping - Water:
 - 1. Conform to ASME B31.9, ASTM F708, MSS SP58, MSS SP69 or MSS SP89.
 - 2. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Carbon steel, adjustable swivel, split ring.
 - 3. Hangers for Cold Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
 - 4. Hangers for Hot Pipe Sizes 2 to 4 inches: Carbon steel, adjustable, clevis.
 - 5. Hangers for Hot Pipe Sizes 6 inches and Larger: Adjustable steel yoke, cast iron roll, double hanger.
 - 6. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.

7. Multiple or Trapeze Hangers for Hot Pipe Sizes 6 inches and Larger: Steel channels with welded spacers and hanger rods, cast iron roll.
8. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hook.
9. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
10. Wall Support for Hot Pipe Sizes 6 inches and Larger: Welded steel bracket and wrought steel clamp with adjustable steel yoke and cast iron roll.
11. Vertical Support: Steel riser clamp.
12. Floor Support for Cold Pipe: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
13. Floor Support for Hot Pipe Sizes 4 inches and Smaller: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
14. Floor Support for Hot Pipe Sizes 6 inches and Larger: Adjustable cast iron roll and stand, steel screws, and concrete pier or steel support.
15. Copper Pipe Support: Copper-plated, Carbon-steel ring.

2.02 PLUMBING PIPING GAS

- A. Conform to NFPA 54, ASME 31.9, ASTM F708, MSS SP 58, MSS SP 69, and MSS SP 89.
- B. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Carbon steel, adjustable swivel, split ring.
- C. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
- D. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
- E. Wall Support for Pipe 3 inches and Smaller: Cast iron hook.
- F. Vertical Support: Steel riser clamp.
- G. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
- H. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

2.03 ACCESSORIES

- A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded.

2.04 MANUFACTURERS – SEISMIC BRACING

- A. Systems: Products of B-Line, Inc., Oakland, CA, are the standard of quality required and specified herein. Similar products of other manufacturers meeting the same standards of performance and approved by OSHPD or ORS/DSA may be submitted for approval.

2.05 INSERTS

- A. Inserts: Malleable iron case of galvanized steel shell and expander plug for threaded connection with lateral adjustment, top slot for reinforcing rods, lugs for attaching to forms; size inserts to suit threaded hanger rods.

2.06 FLASHING

- A. Metal Flashing: 24 gage thick galvanized steel.
- B. Metal Counterflashing: 24 gage thick galvanized steel.
- C. Lead Flashing:

1. Waterproofing: 5 lb./sq. ft sheet lead.
2. Soundproofing: 1 lb./sq. ft sheet lead.

D. Flexible Flashing: 1/16 inch thick sheet; compatible with roofing.

E. Caps: Steel, 22 gage minimum; 16 gage at fire resistant elements.

2.07 SLEEVES

A. Sleeves for Pipes Through Non-fire Rated Floors: 18 gage thick galvanized steel.

B. Sleeves for Pipes Through Non-fire Rated Beams, Walls, Footings, and Potentially Wet Floors: Steel pipe or 18 gage thick galvanized steel.

C. Sealant: Acrylic.

2.08 FIRESTOPPING

A. Manufacturers:

1. Dow Corning Corp.
2. Fire Trak Corp.
3. Hilti Corp.
4. International Protective Coating Corp.
5. 3M fire Protection Products.
6. Specified Technology, Inc.
7. Substitutions: Section 01 60 00 - Product Requirements.

B. Product Description: Different types of products by multiple manufacturers are acceptable as required to meet specified system description and performance requirements; provide only one type for each similar application.

1. Silicone Firestopping Elastomeric Firestopping: Single component silicone elastomeric compound and compatible silicone sealant.
2. Foam Firestopping Compounds: Single component foam compound.
3. Formulated Firestopping Compound of Incombustible Fibers: Formulated compound mixed with incombustible non-asbestos fibers.
4. Fiber Stuffing and Sealant Firestopping: Composite of mineral ceramic fiber stuffing insulation with silicone elastomer for smoke stopping.
5. Mechanical Firestopping Device with Fillers: Mechanical device with incombustible fillers and silicone elastomer, covered with sheet stainless steel jacket, joined with collars, penetration sealed with flanged stops.
6. Intumescent Firestopping: Intumescent putty compound which expands on exposure to surface heat gain.
7. Firestop Pillows: Formed mineral fiber pillows.

C. Color: As selected from manufacturer's full range of colors.

2.09 FIRESTOPPING ACCESSORIES

A. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces and suitable for required fire ratings.

B. Dam Material: Permanent:

1. Mineral fiberboard.
2. Mineral fiber matting.
3. Sheet metal.
4. Plywood or particle board.
5. Alumina silicate fire board.

- C. Installation Accessories: Provide clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.
- D. General:
 - 1. Furnish UL listed products.
 - 2. Select products with rating not less than rating of wall or floor being penetrated.
- E. Non-Rated Surfaces:
 - 1. Stamped steel, chrome plated, hinged, split ring escutcheons or floor plates or ceiling plates for covering openings in occupied areas where piping is exposed.
 - 2. For exterior wall openings below grade, furnish mechanical sealing device to continuously fill annular space between piping and cored opening or water-stop type wall sleeve.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify openings are ready to receive sleeves.
- C. Verify openings are ready to receive firestopping.

3.02 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter affecting bond of firestopping material.
- B. Remove incompatible materials affecting bond.
- C. Obtain permission from Architect/Engineer before using powder-actuated anchors.
- D. Do not drill or cut structural members.

3.03 INSTALLATION - INSERTS

- A. Install inserts for placement in concrete forms.
- B. Install inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.
- C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe 4 inches and larger.
- D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.
- E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.04 INSTALLATION - PIPE HANGERS AND SUPPORTS

- A. Install in accordance with ASME B31.1, ASME 31.9, ASTM F708, MSS SP 58, MSS SP 69 or MSS SP 89.
- B. Support horizontal piping as scheduled.

- C. Install hangers with minimum 1/2 inch space between finished covering and adjacent work.
- D. Place hangers within 12 inches of each horizontal elbow.
- E. Use hangers with 1-1/2 inch minimum vertical adjustment.
- F. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.
- G. Support vertical piping at every floor. Support vertical cast iron pipe at each floor at hub.
- H. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.
- I. Support riser piping independently of connected horizontal piping.
- J. Provide copper plated hangers and supports for copper piping.
- K. Design hangers for pipe movement without disengagement of supported pipe.
- L. Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.
- M. Provide clearance in hangers and from structure and other equipment for installation of insulation. Refer to Section 22 07 00.

3.05 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

- A. Provide housekeeping pads of concrete, minimum 4 inches thick and extending 6 inches beyond supported equipment. Refer to Section 03 30 00.
- B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
- C. Construct supports of steel members or formed steel channel. Brace and fasten with flanges bolted to structure.
- D. Provide rigid anchors for pipes after vibration isolation components are installed. Refer to Section 21 05 48.

3.06 INSTALLATION - FLASHING

- A. Provide flexible flashing and metal counterflashing where piping penetrates weather or waterproofed walls, floors, and roofs.
- B. Flash vent and soil pipes projecting 3 inches minimum above finished roof surface with lead worked 1 inch minimum into hub, 8 inches minimum clear on sides with 24 x 24 inches sheet size. For pipes through outside walls, turn flanges back into wall and caulk, metal counter-flash, and seal.
- C. Flash floor drains in floors with topping over finished areas with lead, 10 inches clear on sides with minimum 36 x 36 inch sheet size. Fasten flashing to drain clamp device.
- D. Seal floor, shower and mop sink drains watertight to adjacent materials.
- E. Adjust storm collars tight to pipe with bolts; caulk around top edge. Use storm collars above roof jacks. Screw vertical flange section to face of curb.

3.07 INSTALLATION - SLEEVES

- A. Exterior watertight entries: Seal with mechanical sleeve seals.
- B. Set sleeves in position in forms. Provide reinforcing around sleeves.
- C. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.
- D. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.
- E. Where piping penetrates floor, ceiling, or wall, close off space between pipe and adjacent work with firestopping insulation and caulk. Provide close fitting metal collar or escutcheon covers at both sides of penetration.
- F. Install chrome plated steel escutcheons at finished surfaces.

3.08 INSTALLATION - FIRESTOPPING

- A. Install material at fire rated construction perimeters and openings containing penetrating sleeves, piping and other items, requiring firestopping.
- B. Apply primer where recommended by manufacturer for type of firestopping material and substrate involved, and as required for compliance with required fire ratings.
- C. Apply firestopping material in sufficient thickness to achieve required fire and smoke rating, to uniform density and texture.
- D. Fire Rated Surface:
 - 1. Seal opening at floor, wall, partition, ceiling and roof as follows:
 - b. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
 - c. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
 - d. Pack void with backing material.
 - e. Seal ends of sleeve with UL listed fire resistive silicone compound to meet fire rating of structure penetrated.
- E. Non-Rated Surfaces:
 - 1. Seal opening through non-fire rated wall, partition, floor, ceiling and roof opening as follows:
 - f. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
 - g. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
 - h. Install type of firestopping material recommended by manufacturer.
 - 2. Exterior wall openings below grade: Assemble rubber links of mechanical sealing device to size of piping and tighten in place, in accordance with manufacturer's instructions.

3.09 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect installed firestopping for compliance with specifications and submitted schedule.

3.10 CLEANING

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for cleaning.
- B. Clean adjacent surfaces of firestopping materials.

3.11 PROTECTION OF FINISHED WORK

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for protecting finished Work.
- B. Protect adjacent surfaces from damage by material installation.

3.12 SCHEDULES

PIPE HANGER SPACING		
PIPE MATERIAL	MAXIMUM HANGER SPACING Feet	HANGER ROD DIAMETER Inches
Cast Iron (All Sizes)	5	5/8
Cast Iron (All Sizes) with 10 foot length of pipe	10	5/8
Copper Tube, 1-1/4 inches and smaller	6	1/2
Copper Tube, 1-1/2 inches and larger	10	1/2
Steel, 3 inches and smaller	12	1/2
Steel, 4 inches and larger	12	5/8

END OF SECTION

SECTION 22 05 53 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Nameplates.
 - 2. Tags.
 - 3. Pipe markers.
 - 4. Ceiling tacks.
 - 5. Labels.
 - 6. Lockout devices.
- B. Related Sections:
 - 1. Section 09 90 00 - Painting and Coating: Execution requirements for painting specified by this section.

1.02 REFERENCES

- A. American Society of Mechanical Engineers:
 - 1. ASME A13.1 - Scheme for the Identification of Piping Systems.

1.03 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit manufacturers catalog literature for each product required.
- C. Shop Drawings: Submit list of wording, symbols, letter size, and color coding for mechanical identification and valve chart and schedule, including valve tag number, location, function, and valve manufacturer's name and model number.
- D. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.04 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Project Record Documents: Record actual locations of tagged valves; include valve tag numbers.

1.05 QUALITY ASSURANCE

- A. Conform to ASME A13.1 for color scheme for identification of piping systems and accessories.
- B. Maintain one copy of each document on site.

1.06 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.07 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.08 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.09 EXTRA MATERIALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Spare parts and maintenance products.
- B. Furnish two containers of spray-on adhesive.

PART 2 - PRODUCTS

2.01 NAMEPLATES

- A. Manufacturers:
 - 1. Craftmark Identification Systems.
 - 2. Safety Sign Co.
 - 3. Seton Identification Products.
 - 4. Brady Co.
 - 5. Substitutions: Section 01 60 00 - Product Requirements.
- B. Product Description: Laminated three-layer plastic with engraved black letters on light contrasting background color.

2.02 TAGS

- A. Metal Tags:
 - 1. Brass with stamped letters; tag size minimum 1-1/2 inches diameter with finished edges, supply with brass jack chain.
- B. Information Tags:
 - 1. Clear plastic with printed "Danger," "Caution," or "Warning" and message; size 3-1/4 x 5-5/8 inches with grommet and self-locking nylon ties.
- C. Tag Chart: Typewritten letter size list of applied tags and location in anodized aluminum frame.

2.03 PIPE MARKERS

- A. Color and Lettering: Conform to ASME A13.1.
- B. Plastic Pipe Markers: Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering. Larger sizes may have maximum sheet size with spring fastener.
- C. Plastic Tape Pipe Markers: Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.
- D. Plastic Underground Pipe Markers: Bright colored continuously printed plastic ribbon tape, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service.

2.04 CEILING TACKS

- A. Description: Steel with 3/4 inch diameter color-coded head.
- B. Color code as follows:
 - 1. Plumbing valves: Green.

2.05 LABELS

- A. Description: Aluminum, size 1.9 x 0.75 inches, adhesive backed with printed identification.

2.06 LOCKOUT DEVICES

- A. Lockout Hasps:
 - 1. Anodized aluminum hasp with erasable label surface; size minimum 7-1/4 x 3 inches.
- B. Valve Lockout Devices:
 - 1. Nylon device preventing access to valve operator, accepting lock shackle.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Degrease and clean surfaces to receive adhesive for identification materials.

3.02 INSTALLATION

- A. Apply stencil painting in accordance with Section 09 90 00.
- B. Install identifying devices after completion of coverings and painting.
- C. Install plastic nameplates with corrosive-resistant mechanical fasteners, or adhesive.
- D. Install labels with sufficient adhesive for permanent adhesion and seal with clear lacquer. For unfinished canvas covering, apply paint primer before applying labels.
- E. Install tags using corrosion resistant chain. Number tags consecutively by location.
- F. Install underground plastic pipe markers 6 to 8 inches below finished grade, directly above buried pipe.
- G. Identify water heaters with plastic nameplates.
- H. Identify control panels and major control components outside panels with plastic nameplates.
- I. Identify valves in main and branch piping with tags.
- J. Identify piping, concealed or exposed, with plastic pipe markers, plastic tape pipe markers or stenciled painting. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Locate identification not to exceed 20 feet on straight runs including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.
- K. Provide ceiling tacks to locate valves above T-bar type panel ceilings. Locate in corner of panel closest to equipment.

END OF SECTION

SECTION 22 07 00 - PLUMBING INSULATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Plumbing piping insulation, jackets and accessories.
 - 2. Plumbing equipment insulation, jackets and accessories.
- B. Related Sections:
 - 1. Section 07 84 00 - Firestopping: Product requirements for firestopping for placement by this section.
 - 2. Section 09 90 00 - Painting and Coating: Execution requirements for painting insulation jackets and covering specified by this section.

1.02 REFERENCES

- A. ASTM International:
 - 1. ASTM C450 - Standard Practice for Prefabrication and Field Fabrication of Thermal Insulating Fitting Covers for NPS Piping, Vessel Lagging, and Dished Head Segments.
 - 2. ASTM C534 - Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
 - 3. ASTM C585 - Standard Practice for Inner and Outer Diameters of Rigid Thermal Insulation for Nominal Sizes of Pipe and Tubing (NPS System).
 - 4. ASTM C1136 - Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
 - 5. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. National Fire Protection Association:
 - 1. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.
- C. Underwriters Laboratories Inc.:
 - 1. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.03 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit product description, thermal characteristics and list of materials and thickness for each service, and location.
- C. Manufacturer's Installation Instructions: Submit manufacturers published literature indicating proper installation procedures.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.04 QUALITY ASSURANCE

- A. Test pipe insulation for maximum flame spread index of 25 and maximum smoke developed index of not exceeding 50 in accordance with ASTM E84.
- B. Pipe insulation manufactured in accordance with ASTM C585 for inner and outer diameters.
- C. Factory fabricated fitting covers manufactured in accordance with ASTM C450.

- D. Maintain one copy of each document on site.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three years documented experience.

1.06 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Accept materials on site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.
- C. Protect insulation from weather and construction traffic, dirt, water, chemical, and damage, by storing in original wrapping.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.
- B. Install insulation only when ambient temperature and humidity conditions are within range recommended by manufacturer.
- C. Maintain temperature before, during, and after installation for minimum period of 24 hours.

1.09 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for man made fiber.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Manufacturers for Glass Fiber and Mineral Fiber Insulation Products:
 - 1. CertainTeed.
 - 2. Knauf.
 - 3. Johns Manville.
 - 4. Owens-Corning.
 - 5. Substitutions: Section 01 60 00 - Product Requirements.

- B. Manufacturers for Closed Cell Elastomeric Insulation Products:
 - 1. Aeroflex. Aerocell.
 - 2. Armacell, LLC. Armaflex.
 - 3. Nomaco. K-flex.
 - 4. Substitutions: Section 01 60 00 - Product Requirements.

2.02 PIPE INSULATION

- A. TYPE P-1: ASTM C547, molded glass fiber pipe insulation.
 - 1. Thermal Conductivity: 0.23 at 75 degrees F.
 - 2. Operating Temperature Range: 0 to 850 degrees F.
 - 3. Vapor Barrier Jacket: ASTM C1136, Type I, factory applied reinforced foil kraft with self-sealing adhesive joints.
 - 4. Jacket Temperature Limit: minus 20 to 150 degrees F.
- B. TYPE P-5: ASTM C534, Type I, flexible, closed cell elastomeric insulation, tubular.
 - 1. Thermal Conductivity: 0.27 at 75 degrees F.
 - 2. Operating Temperature Range: Range: Minus 70 to 180 degrees F.

2.03 PIPE INSULATION ACCESSORIES

- A. Vapor Retarder Lap Adhesive: Compatible with insulation.
- B. Covering Adhesive Mastic: Compatible with insulation.
- C. Piping 1-1/2 inches diameter and smaller: Galvanized steel insulation protection shield. MSS SP-69, Type 40. Length: Based on pipe size and insulation thickness.
- D. Piping 2 inches diameter and larger: Wood insulation saddle, hard maple. Inserts length: not less than 6 inches long, matching thickness and contour of adjoining insulation.
- E. Closed Cell Elastomeric Insulation Pipe Hanger: Polyurethane insert with stainless steel jacket single piece construction with self adhesive closure. Thickness to match pipe insulation.
- F. Adhesives: Compatible with insulation.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify piping has been tested before applying insulation materials.
- C. Verify surfaces are clean and dry, with foreign material removed.

3.02 INSTALLATION - PIPING SYSTEMS

- A. Piping Exposed to View in Finished Spaces: Locate insulation and cover seams in least visible locations.
- B. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of one hour or less. Provide intumescent firestopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions. Refer to Section 07 84 00 for penetrations of assemblies with fire resistance rating greater than one hour.
- C. Piping Systems Conveying Fluids Below Ambient Temperature:

1. Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, and expansion joints.
 2. Furnish factory-applied vapor retarder jackets. Secure factory-applied jackets with pressure sensitive adhesive self-sealing longitudinal laps and butt strips.
 3. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjacent pipe.
- D. Hot Piping Systems less than 140 degrees F:
1. Furnish factory-applied standard jackets. Secure with outward clinch expanding staples or pressure sensitive adhesive system on standard factory-applied jacket and butt strips or both.
 2. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe.
 3. Do not insulate unions and flanges at equipment, but bevel and seal ends of insulation at such locations.
- E. Inserts and Shields:
1. Piping 1-1/2 inches Diameter and Smaller: Install galvanized steel shield between pipe hanger and insulation.
 2. Piping 2 inches Diameter and Larger: Install insert between support shield and piping and under finish jacket.
 - a. Insert Configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
 - b. Insert Material: Compression resistant insulating material suitable for planned temperature range and service.
- F. Insulation Terminating Points:
1. Coil Branch Piping 1 inch and Smaller: Terminate hot water piping at union upstream of the coil control valve.
 2. Condensate Piping: Insulate entire piping system and components to prevent condensation.
- G. Closed Cell Elastomeric Insulation:
1. Push insulation on to piping.
 2. Miter joints at elbows.
 3. Seal seams and butt joints with manufacturer's recommended adhesive.
 4. When application requires multiple layers, apply with joints staggered.
 5. Insulate fittings and valves with insulation of like material and thickness as adjacent pipe.
- H. High Temperature Pipe Insulation:
1. Install in multiple layers to meet thickness scheduled.
 2. Attach each layer with bands. Secure first layer with bands before installing next layer.
 3. Stagger joints between layers.
 4. Cover with seams located on bottom side of horizontal piping.
- I. Buried Piping: Insulate only where insulation manufacturer recommends insulation product may be installed in trench, tunnel or direct buried. Install factory fabricated assembly with inner all-purpose service jacket with self-sealing lap.
- J. Prepare pipe insulation for finish painting. Refer to Section 09 90 00.

3.03 SCHEDULES

- A. Water Supply Services Piping Insulation Schedule:

PIPING SYSTEM	INSULATION TYPE	PIPE SIZE	INSULATION THICKNESS inches
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Domestic Hot Water Supply and Recirculation systems with domestic water temperature maintenance cable	P-1		
		1 inch and smaller	1.0
		1-1/4 inches to 2 inches	1.5
		2-1/2 inches and larger	2.0

END OF SECTION

SECTION 22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Commercial electric water heaters.
- B. Related Sections:
 - 1. Section 03 30 00 - Cast-In-Place Concrete: Execution requirements for concrete housekeeping pads specified by this section.
 - 2. Section 26 05 03 - Equipment Wiring Connections: Execution requirements for electric connections specified by this section.

1.02 REFERENCES

- A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
 - 1. ASHRAE 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
- B. American Society of Mechanical Engineers:
 - 1. ASME PTC 25 - Pressure Relief Devices.
 - 2. ASME Section VIII - Boiler and Pressure Vessel Code - Pressure Vessels.

1.03 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate heat exchanger dimensions, size of taps, and performance data. Indicate dimensions of tanks, tank lining methods, anchors, attachments, lifting points, taps, and drains.
- C. Product Data: Submit dimensioned drawings of water heaters indicating components and connections to other equipment and piping. Submit electrical characteristics and connection locations.
- D. Manufacturer's Installation Instructions: Submit mounting and support requirements.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.04 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Operation and Maintenance Data: Submit replacement part numbers and availability.

1.05 QUALITY ASSURANCE

- A. Conform to ASME Section VIII for construction of water heaters. Provide boilers registered with National Board of Boiler and Pressure Vessel Inspectors.
- B. Water Heater Performance Requirements: Equipment efficiency not less than prescribed by ASHRAE 90.1.
- C. Perform Work in accordance with State and city standard.
- D. Maintain one copy of each document on site.

1.06 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.07 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Products storage and handling requirements.
- B. Accept water heaters on site in original labeled cartons. Inspect for damage.
- C. Protect tanks with temporary inlet and outlet caps. Maintain caps in place until installation.

1.09 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for domestic water heaters.

PART 2 - PRODUCTS

2.01 COMMERCIAL ELECTRIC WATER HEATERS

- A. Manufacturers:
 - 1. Rheem.
 - 2. American Water Heater Group.
 - 3. Broan Manufacturing Co. Inc.
 - 4. Patterson-Kelley Co.
 - 5. Substitutions: Section 01 60 00 - Product Requirements Not Permitted.
- B. Type: Factory-assembled and wired, electric, vertical storage. Refer to plumbing equipment schedule for more detailed information.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Maintain manufacturer's recommended clearances around and over water heaters.
- B. Connect domestic cold water piping to supply and return water heater connections.
- C. Install the following piping accessories.
 - 1. On supply:
 - a. Thermometer well and thermometer.
 - b. Strainer.
 - c. Pressure gage.

- d. Shutoff valve.
- D. Install discharge piping from relief valves and drain valves to nearest floor sink.
- E. Install water heater trim and accessories furnished loose for field mounting.
- F. Install electrical devices furnished loose for field mounting.
- G. Install control wiring between water heater control panel and field mounted control devices.

END OF SECTION

SECTION 22 40 00 - PLUMBING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Water closets.
 - 2. Urinals.
 - 3. Lavatories.
 - 4. Insulation kit.
 - 5. Drinking fountains.
 - 6. Water hammer arrestors.
 - 7. Trap primers.
 - 8. Access panels.
- B. Related Sections:
 - 1. Section 07 90 00 - Joint Protection: Product requirements for calking between fixtures and building components for placement by this section.
 - 2. Section 26 05 03 - Equipment Wiring Connections: Execution requirements for electric connections to sensor valves and faucets specified by this section.

1.2 REFERENCES

- A. American National Standards Institute:
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ANSI Z124.1 - Plastic Bathtub Units.
 - 3. ANSI Z124.2 - Plastic Shower Units.
 - 4. ANSI Z358.1 - Emergency Eyewash and Shower Equipment.
- B. Air-Conditioning and Refrigeration Institute:
 - 1. ARI 1010 - Self-Contained, Mechanically Refrigerated Drinking-Water Coolers.
- C. American Society of Mechanical Engineers:
 - 1. ASME A112.6.1 - Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use.
 - 2. ASME A112.18.1 - Plumbing Fixture Fittings.
 - 3. ASME A112.19.1M - Enameled Cast Iron Plumbing Fixtures.
 - 4. ASME A112.19.2M - Vitreous China Plumbing Fixtures.
 - 5. ASME A112.19.3 - Stainless Steel Plumbing Fixtures (Designed for Residential Use).
 - 6. ASME A112.19.4 - Porcelain Enameled Formed Steel Plumbing Fixtures.
 - 7. ASME A112.19.5 - Trim for Water-Closet Bowls, Tanks and Urinals.

1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- C. Manufacturer's Installation Instructions: Submit installation methods and procedures.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.

- B. Operation and Maintenance Data: Submit fixture, trim, exploded view and replacement parts lists.

1.5 QUALITY ASSURANCE

- A. Provide products requiring electrical connections listed and classified by Underwriters Laboratories Inc. as suitable for purpose specified and indicated.
- B. Maintain one copy of each document on site.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.7 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Accept fixtures on site in factory packaging. Inspect for damage.
- C. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

1.9 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for plumbing fixtures.

1.10 EXTRA MATERIALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Spare parts and maintenance products.
- B. Furnish two sets of faucet washers, flush valve service kits, and lavatory supply fittings.

PART 2 - PRODUCTS

2.1 FIXTURE REQUIREMENTS

- A. Accessible plumbing fixtures shall comply with all of the requirements in CBC Division 6.
- B. Heights and location of all accessible fixtures shall be mounted according to CBC Sections 11B-602 through 11B-612.
- C. Fixture controls shall comply with CBC Sections 11B-601.3 for drinking fountains, 11B-604.6 for water closets, 11B-604.9.5 for children's water closets, 11B-605.4 for urinals, 11B-606.4 for lavatories and sinks, 11B-607.5 for bathtubs, 11B-608.5 for showers, and 11B-611.3 for washing machines and clothes dryers.

- D. Accessible sinks shall be 6-1/2" deep maximum. Sinks shall be mounted with the front of the higher of the rim and counter surface 34" maximum above the finish floor or ground.
- E. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks. CBC Section 11B-606.

2.2 ACCEPTABLE MANUFACTURERS – FIXTURES

- A. American Standard
- B. Kohler
- C. Eljer

2.3 ACCEPTABLE MANUFACTURERS - FLUSH VALVES

- A. Sloan

2.4 ACCEPTABLE MANUFACTURERS - WATER CLOSET SEATS

- A. Olsonite
- B. Beneke
- C. Church

2.5 ACCEPTABLE MANUFACTURERS - FIXTURE CARRIERS

- A. J.R. Smith
- B. Zurn
- C. Josam

2.6 ACCEPTABLE MANUFACTURERS - FIXTURE TRIM

- A. Chicago Faucet

2.7 ACCEPTABLE MANUFACTURERS - MIXING VALVES (PRESSURE BALANCED)

- A. Symmons
- B. Leonard
- C. Powers

2.8 ACCEPTABLE MANUFACTURERS - SHOWERS

- A. American Standard
- B. Symmons
- C. Kohler

2.9 ACCEPTABLE MANUFACTURERS – DRINKING FOUNTAINS AND ELECTRIC WATER COOLERS

- A. Sunroc
- B. Haws
- C. Elkay

2.10 ACCEPTABLE MANUFACTURERS - WATER HAMMER ARRESTORS

- A. Precision Plumbing Products
- B. J.R. Smith
- C. Zurn

2.11 ACCEPTABLE MANUFACTURERS - TRAP PRIMERS

- A. Precision Plumbing Products
- B. J.R. Smith
- C. Zurn

2.12 WATER CLOSET, FLOOR MOUNTED, NORMAL

- A. Bowl: ANSI A112.19.2; 1.28 gallons per flush, siphon jet, vitreous china closet bowl with elongated rim, 1-1/2" spud and china bolt caps. For model number see schedule on drawings.
- B. Flush Valve: ANSI A112.18.1; exposed chrome plated, automatic sensor type battery powered. For model number see schedule on drawings.
- C. Seat: Solid elongated plastic, open front with self-sustaining hinge, brass bolts. For model number see schedule on drawings.

2.13 WATER CLOSET, FLOOR MOUNTED, ACCESSIBLE

- A. Bowl: ANSI A112.19.2M; 1.28 gallon per flush, siphon jet, vitreous china closet bowl with elongated rim, 17" high for accessibility, 1-1/2" top spud and china bolt caps. For model number see schedule on drawings.
- B. Flush Valve: ANSI A112.18.1; exposed chrome plated, automatic sensor type battery operated. For model number see schedule on drawings.
- C. Seat: Solid elongated plastic, open front with self-sustaining hinge, brass bolts. For model number see schedule on drawings.

2.14 URINAL, WALL HUNG, NORMAL

- A. Urinal: ANSI A112.19.2; vitreous china, 1/8 gallon per flush, siphon jet with flushing rim, integral trap, 3/4 inch top spud. For model number see schedule on drawings.
- B. Flush Valve: ANSI A112.18.1; exposed chrome plated, automatic sensor type battery operated. For model number see schedule on drawings.

- C. Wall Mounted Carrier: ANSI A112.6.1; cast iron and steel frame with tubular legs, lugs for floor and wall attachment, threaded fixture studs for fixture hanger, bearing studs. For model number see schedule on drawings.

2.15 URINAL, WALL HUNG, ACCESSIBLE

- A. Urinal: ANSI A112.19.2; vitreous china, 1/8 gallon per flush, siphon jet with flushing rim, integral trap, 3/4 inch top spud. For model number see schedule on drawings.
- B. Flush Valve: ANSI A112.18.1; exposed chrome plated, automatic sensor type battery operated. For model number see schedule on drawings.
- C. Wall Mounted Carrier: ANSI A112.6.1; cast iron and steel frame with tubular legs, lugs for floor and wall attachment, threaded fixture studs for fixture hanger, bearing studs. For model number see schedule on drawings.

2.16 LAVATORY, COUNTER TOP, ACCESSIBLE

- A. Basin (L-2): ANSI A112.19.2; vitreous china unglazed rim for under counter mount, oval basin with front overflow. For model number see schedule on drawings.
- B. Trim: ANSI A112.18.1; chrome plated combination supply fitting battery operated sensor and strainer, chrome plated 17 gage L.A. pattern cast brass P-trap and arm with escutcheon, and rigid supplies. For model number see schedule on drawings.

2.17 INSULATION KIT

- A. Where lavatories or sinks are noted to be insulated for ADA compliance, furnish the following: Safety covers conforming to ANSI A177.1, ASTM E84-07 and consisting of insulation kit of molded closet cell vinyl construction, 3/16 inch thick, white color, for insulating tailpiece, P-trap, valves and supply piping. Furnish with weep hole and angle valve access covers.

2.18 DRINKING FOUNTAIN / BOTTLE FILLER, HI-LOW ACCESSIBLE

- A. Fountain: Wall mounted, stainless steel construction, complete with bottle filler and chiller. For model number see schedule on drawings.

2.19 DRINKING FOUNTAIN, ACCESSIBLE, HI-LOW ACCESSIBLE

- A. Fountain: Wall mounted, stainless steel construction, non-chilled, less bottle filler. For model number see schedule on drawings.

2.20 FLOOR SINKS

- A. FS-1: Square lacquered cast iron body with integral seepage pan, epoxy coated interior, aluminum dome strainer, clamp collar and nickel bronze frame; see Schedule on drawings for Model number.

2.21 WATER HAMMER ARRESTORS

- A. ANSI A112.26.1; sized in accordance with manufacturer's recommendation, precharged suitable for operation in temperature range - 100 to 300 degrees F and maximum 250 psig working pressure; see Schedule on drawings for Model number.

2.22 TRAP PRIMERS

- A. TP-1; ANSI A112.26; cast bronze with 1/2-inch connection. See Schedule on drawings for Model number.

- B. TP-2: Provide a trap primer enclosed in a 12" x 12" x 4" NEMA-1 enclosure, with a 1/2" inch NPT female inlet complying with ANSI/ASME B1.20.1, outlet shall be 1/2" inch compression fitting, provide with circuit breaker, switch, timer, manual override, solenoid valve marked as UL Listed, electronic assembly tested and certified per UL #73, and backflow device anti-siphon atmospheric vacuum breaker IAPMO, ASSE 1001 and CSA. Provide in accordance with ASSE Standard No. 1018. See schedule on the drawings for model number.

2.23 ACCESS PANELS

- A. 12" x 12" No. 4 finish stainless steel flush type, locate and set after review. Steel door and frame with metal flange with concealed hinges and screwdriver operated stainless steel cam lock. Karp style DSC-214M for fire rated construction use KRP-150FR.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify walls and floor finishes are prepared and ready for installation of fixtures.
- C. Verify electric power is available and of correct characteristics.
- D. Confirm millwork is constructed with adequate provision for installation of counter top lavatories and sinks.

3.2 PREPARATION

- A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.

3.3 INSTALLATION

- A. Install each fixture with trap, easily removable for servicing and cleaning.
- B. Provide chrome plated rigid or flexible supplies to fixtures with loose key stops, reducers, and escutcheons.
- C. Install components level and plumb.
- D. Install and secure fixtures in place with wall carriers and bolts.
- E. Seal fixtures to wall and floor surfaces with sealant as specified in Section 07 90 00, color to match fixture.
- F. Solidly attach water closets to floor with lag screws. Lead flashing is not intended hold fixture in place.
- G. For ADA accessible water closets, install flush valve with handle to wide side of stall.

3.4 INTERFACE WITH OTHER PRODUCTS

- A. Review millwork shop-drawings. Confirm location and size of fixtures and openings before rough in and installation.

3.5 ADJUSTING

- A. Section 01 70 00 - Execution and Closeout Requirements: Testing, adjusting, and balancing.

- B. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.6 CLEANING

- A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.
- B. Clean plumbing fixtures and equipment.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Section 01 70 00 - Execution and Closeout Requirements: Protecting installed construction.
- B. Do not permit use of fixtures before final acceptance.

END OF SECTION

SECTION 26 05 00 - COMMON WORK RESULTS ON ELECTRICAL

PART 1 - GENERAL

1.01 SCOPE

- A. This section supplements all sections of this division and shall apply to all phases of work hereinafter specified, shown on the drawings, or required to provide a complete installation of electrical systems for the Project. The work required under this division is not limited to the Electrical Drawings. Refer to Site, Architectural, Structural, and Mechanical Drawings which may designate Work to be accomplished. The intent of the Specifications is to provide a complete electrical system which include all documents which are a part of the Contract.
 - 1. Work included: Furnish all labor, material, tools, equipment, facilities, transportation, skilled supervision necessary for, and incidental to, performing operations in connection with furnishing, delivery, and installation of the work in this section complete as shown or noted on the Drawings and specified herein.
- B. Related Work Specified Elsewhere: Refer to all sections in Division 0, Contract Requirements and Division 1, General Requirements.
- C. Work Installed but Furnished by Others: The electrical work includes the installation or connection of certain materials and equipment furnished by others. Verify installation details. Foundations for apparatus and equipment will be furnished by others unless otherwise noted or detailed.

1.02 GENERAL REQUIREMENTS

- A. Guaranty - Execution and Closeout Requirements:
 - 1. Except as may be specified under other Sections in the specification, guarantee equipment furnished under the specifications for a period of one year, except for equipment required to have a longer guaranty period, from date of Substantial Completion against defective workmanship and material, and improper installation. Upon notification of failure, correct deficiency immediately and without cost to the Owner.
 - 2. Standard warranty of manufacturer shall apply for replacement of parts after expiration of the above period. Manufacturer shall furnish replacement parts to the Owner or his service agency as approved. Furnish to the Owner, through the Architect, printed manufacturer's warranties complete with material included and expiration dates, upon completion of project.
- B. Equipment Safety: All electrical materials and equipment shall be new and shall be listed by Underwriter's Laboratories and bear their label, or listed and certified by a nationally recognized testing authority where UL does not have an approval. Custom made equipment must have complete test data submitted by the manufacturer attesting to its safety. Provide signage at all electrical rooms and on each exterior electrical enclosure access door or gate. Sign shall read "DANGER-HIGH VOLTAGE". Provide signage on each door or removable access panel on electrical equipment rated 600 volts and over. Sign shall read "DANGER-HIGH VOLTAGE".
- C. Codes and Regulations:
 - 1. Design, manufacture, testing and method of installation of all apparatus and materials furnished under the requirements of these specifications shall conform to the latest publications or standard rules of the following:
 - Institute of Electrical and Electronic Engineers - IEEE
 - National Electrical Manufacturers' Association - NEMA
 - Underwriters' Laboratories, Inc. - UL
 - National Fire Protection Association - NFPA
 - American Society for Testing and Materials - ASTM

American National Standards Institute - ANSI
California Electrical Code - CEC
California Code of Regulations, Title 8, Subchapter 5
California Building Code
State & Municipal Codes in Force in the Specific Project Area
Occupational Safety & Health Administration - OSHA
California State Fire Marshal - CSFM

The term "Code", when used within the specifications, shall refer to the Publications, Standards, ordinances and codes, listed above. In the case where the codes have different levels of requirements the most stringent rules shall apply.

D. Requirements of Regulatory Agencies:

1. Codes, Permits, and Fees: Where the Contract Documents exceed minimum requirements, the Contract Documents take precedence. Where code conflicts occur, the most stringent shall apply unless variance is approved.
 - a. Comply with all requirements for permits, licenses, fees and Code. Permits, licenses, fees, inspections and arrangements required for the work shall be obtained by the Contractor at his expense, unless otherwise specified.
 - b. Comply with the requirements of the applicable utility companies serving the Project. Make all arrangements with the utility companies for proper coordination of the Work.

E. Shop Drawings:

1. Time Schedules for Submission and Ordering: The Contractor shall prepare, review and coordinate his schedule of submissions carefully, determining the necessary lead time for preparing, submitting, checking, ordering and delivery of materials and equipment for timely arrival. The Contractor shall be responsible for conformance with the overall construction schedule.
2. Submittals will be checked for general compliance with specifications only. The Contractor shall be responsible for deviations from the drawings or specifications and for errors or omissions of any sort in submittals.
3. Submit a complete list of materials and equipment proposed for the job, including manufacturer's names and catalog numbers.
4. Shop drawings shall be submitted in completed groups of materials (i.e., lighting fixtures or switchgear). The Contractor shall add and sign the following paragraph on equipment and materials submitted for review. "It is hereby certified that the equipment and material shown and marked in this submittal is that proposed to be incorporated into the project; is in compliance with the Contract Drawings and specifications and can be installed in the allocated spaces". Failure to add the above written statement for compliance will result in return of submittals to be reviewed.
 - c. Bind catalog cuts, plate numbers, descriptive bulletins and drawings, 11" x 17" or smaller, in sets with covers neatly showing titles.
 - d. The Contractor shall verify dimensions of equipment and be satisfied as to Code compliance for fit prior to submitting shop drawings for approval.
 - e. Where current limiting devices are specified, submit technical data to substantiate adequate protection of equipment cascaded downstream. Submittals shall not be reviewed unless supporting calculations and data are submitted therewith.
 - f. Include complete catalog information such as construction, ratings and insulation systems, as applicable.
 - g. For any material specified to meet UL or trade standards, furnish the manufacturer or vendor's certification that the material furnished for the work does in fact equal or exceed such specifications.
 - h. Reference listings to the specifications' Sections and Article to which each is applicable.
 - i. Equipment Floor Plans: After approval of material is secured, prepare a floor plan of each electrical communication, and voice/data equipment room, drawn to scale at 1/2 inch equals 1 foot and submit for approval prior to rough-in in the same manner as for shop drawings. The layout drawings shall be exact scale. Equipment dimensions shall

not exceed those indicated on the drawings. If proposed equipment exceeds these dimensions, it shall be the responsibility of the contractor to coordinate all equipment arrangement within the room with all affected trades to provide all code clearances and proper arrangements prior to rough-in. Equipment that grossly exceeds the space allocated and would require an increase in room size is not acceptable.

- F. Interpretations: Requests for interpretations of drawings and specifications must be made by the Contractor through the Architect. Any such requests made by equipment manufacturers or suppliers will be referred to the Contractor.
- G. Substitutions: Refer to General Conditions.
- H. Submit comprehensive material list, shop drawings and complete technical data for the following equipment and materials:
 - 1. General Requirements:
 - j. Distribution switchboards.
 - k. Panelboards/Transformers.
 - l. Conduits.
 - m. Conductors, include selected insulation type.
 - n. Fuses
 - o. Disconnect switches.
 - p. Pullboxes.
 - q. Standard lighting fixtures, specially fabricated fixtures, ballasts and lamps, with samples and sample of standard finish available (where requested).
 - r. Integrated electronic system.
 - s. Control devices, standard and special receptacles, switches, plug strips and finish device plates.
 - t. Access panels.
 - u. Fire alarm system.
- I. Utility Service:
 - 1. Contractor shall verify the locations shown on the drawings and shall include extensions of lines to service locations which are acceptable to the City of Irvine. Costs levied by the City of Irvine must be borne by the Contractor.
 - 2. Verify electrical, telephone and data network, architectural and structural, dimensional and other requirements with the City of Irvine.
 - 3. Should any major modifications to the work indicated be necessary to comply with the City of Irvine requirements, notify the Architect.
 - 4. Within five days after award of Contract, notify City of Irvine that the project is under construction and furnish them the dates on which the various services will be required.
- J. Record Drawings: The contractor shall provide and keep up-to-date a complete record set of drawings. These prints shall be corrected daily and show every change from the original drawings. This set of drawings shall be kept on the job site and shall be used only as a record set. This shall not be construed as authorization for the contractor to make changes in the layout without definite instruction in each case. Upon completion of the work, a set of reproducible contractor drawings shall be obtained from the Architect, and all changes as noted on the record set of drawings shall be incorporated thereon with black ink in a neat, legible, understandable and professional manner. Failure to keep record drawings up-to-date shall constitute cause for withholding of progress payments.
- K. Work Responsibilities:
 - 1. The drawings indicate diagrammatically the desired locations or arrangement of conduit runs, outlets and equipment and are to be followed. Execute the work so as to secure the best possible installation in the available space and to overcome local difficulties due to space limitations. The Contractor is responsible for the correct placing of his work.

2. Locations shown on architectural plan or on wall elevations shall take precedence over electrical plan locations, but where a major conflict is evident, notify the Architect before installing any rough-in conduit underground or above ground.
 3. In the event changes in the indicated locations or arrangement are necessary due to developed conditions in the building construction or rearrangement of furnishings or equipment, such changes shall be made without extra cost.
 4. Verify dimensions and the correct location of Owner-Furnished equipment before proceeding with the roughing-in of connections.
 5. Lighting fixtures in mechanical spaces and elevator machine rooms are shown in their approximate locations only. Do not install light outlets or fixtures until mechanical piping and ductwork are installed; then lights shall be installed in locations best suited for equipment arrangement as directed by the Architect. Verify locations of fixtures in elevator machine rooms with the elevator company before installation.
 6. All scaled and figured dimensions are approximate of typical equipment of the class indicated. Before proceeding with work carefully check and verify dimensions and sizes with the drawings to see that the equipment will fit into the spaces provided without violation of applicable Codes.
 7. Should any changes to the work indicated on the drawings or described in the specifications be necessary in order to comply with the above requirements, notify the Architect.
 8. Be responsible for coordination of coordinated drawings.
 9. Replace or repair, without additional compensation, any work which does not comply with these requirements.
- L. Installation General: For special requirements, refer to specific equipment under these requirements.
1. Unless otherwise specified elsewhere in the specifications, do all excavating necessary for the proper installation of the electrical work.
 2. Locations of Openings: Locate chases, shafts and openings required for the installation of the electrical work during framing of the structure. Do any additional cutting and patching required. Cutting or drilling in any structural member is prohibited without approval of the Architect. Furnish access panels as required.
 3. Location of Sleeves: Where conduits pass through concrete walls, suspended slabs or metal deck floors, install sleeves of adequate size to permit installation of conduit. Sleeves shall be installed prior to pouring of concrete and shall have ends flush with the wall or extend 2 inches above floor surfaces. Verify locations.
 4. Type of Sleeves: Sleeves shall be steel pipe or galvanized sheet steel.
 5. Finish Around Sleeves: Rough edges shall be finished smooth. Space between conduit and sleeves where conduit passes through exterior walls shall be sealed to permit movement of conduit, but prevent entrance of water. Space between conduit and sleeves where conduit passes through fire rated interior walls and slabs shall be sealed with approved materials to provide a fire barrier conforming to the requirements of the governing authorities having jurisdiction, using UL Approved Firestopping Systems.
 6. Wherever conduit extends through roof, install flashings in accordance with drawings and details.
 7. Be responsible for cutting and patching which may be required for the proper installation of the electrical work.
 8. Protect work, materials and equipment cause whatever and provide adequate and proper storage facilities during the progress of the work.
 9. Storage outdoors shall be weather protected and shall include space heaters to prevent condensation. Provide for the safety and good condition of all work until final acceptance of the work. Replace all damaged or defective work, materials and equipment before requesting final acceptance.
 10. Conduit and Equipment to be Installed: Clean thoroughly to remove plaster, spattered paint, cement and dirt on both exterior and interior
 11. Conduit and Equipment to be Painted: Clean conduit exposed to view in completed structure by removing plaster and dirt. Remove grease, oil and similar material from conduit and equipment by wiping with clean rags and suitable solvents in preparation for paint.

12. Items with Factory Finish: Remove cement, plaster, grease and oil, and leave surfaces, including cracks and corners, clean and polished. Touch up scratched or bare spots to match finish.
13. Site Cleaning: Remove from site all packing cartons, scrap materials and other rubbish.
14. Electrical equipment and materials exposed to public and in finished areas shall be finish-painted after installation in accordance with the Painting Section. All exposed screw-type fasteners, exterior, or interior in restrooms, shall be vandal-resistant spanner type; include tool.

M. Excavation, Cutting and Patching:

1. Excavating, trenching and backfilling required for the work of this Division in accordance with the applicable requirements of Division 2. Excavating and backfilling connected with electrical work, repaving cuts and providing and maintaining protective measures for the electrical work excavation required by the governing authorities having jurisdiction shall be performed as a part of the work of this Division.
2. Verify openings indicated on the drawings. Additional cutting, patching and reinforcement of the construction of the building as required.

N. Tests:

1. Equipment and systems for which the National Electrical Testing Association (NETA) has an approved or recommended procedure, shall be tested in accordance with that procedure. Test values shall equal values recommended by NETA. Copies of test reports shall be submitted as required under shop drawing submittals.
2. Resistance to ground tests shall be accomplished by a qualified independent testing firm to measure resistance to ground at grounding electrodes. Make tests before slabs or affected areas are poured in order that corrective measures, if required, may be taken. Submit a report showing the results of these measurements. If the resistances exceed values specified elsewhere or NETA test procedure recommendations, perform corrective measures required to reduce resistance to acceptable values.
3. Prior to energizing any motor, measure the service voltage for phase balance and report if unbalance exceeds 1% from mean.
4. Measure the three-phase voltage at no load and at maximum load conditions and submit to the report showing the results of these measurements.
5. Upon completion of the work and adjustment of all equipment, conduct an operating test. Conduct the test in the presence of an authorized representative of the Architect. Demonstrate system and equipment to operate in accordance with requirements of the Contract Documents and to be free from electrical and mechanical defects. Provide systems free from short circuits and grounds and show an insulation resistance between phase conductors and ground not less than the requirements of the governing electric code. Test circuits for proper neutral connection.
6. Complete tests prior to final inspection of project, including corrective work based on the results of the tests.
7. Perform special tests on systems and equipment as specified herein using personnel qualified to perform such tests.
8. Submit a report showing test voltage of line to neutral on the secondaries of transformers.
9. Measure voltage on secondary side of transformers with full load connected and adjust taps to provide rated secondary voltage.

O. Protection: Protect finish parts of the materials and equipment against damage during the progress of the work and until final completion and acceptance. Cover materials and equipment in storage and during construction in such a manner that no finished surfaces will be damaged or marred. Keep moving parts clean, dry and lubricated.

P. Cleaning Up:

1. Upon completion of the work and at various time during the progress of the work, remove from the building all surplus materials, rubbish and debris resulting from the work of this Division.

2. Thoroughly clean switchgear including busses, apparatus, exposed conduit, metal work including the exterior and interior, and accessories for the work of this Division, of cement, plaster and other deleterious materials; remove grease and oil spots with cleaning solvent; carefully wipe surfaces and scrape cracks and corners clean.
 3. Thoroughly polish chromium or plated work. Remove dirt and stains from lighting fixtures.
 4. Leave the entire installation in a clean condition.
- Q. Completion:
1. The work will not be reviewed for final acceptance until operating and maintenance data, manufacturer's literature, panel directories and nameplates specified herein have been approved and properly posted or installed and final cleaning of equipment and premises has been completed.
 2. When the installation is complete and adjustments have been made, operate the system for a period of one week, during which time demonstrate that systems are completed and operating in conformance with the specifications.
- R. Operating and Maintenance Data: Submit complete and at one time, prior to acceptance of the installation, 4 copies of manufacturer's instructions for operation and maintenance of electrical equipment, including replacement parts lists.
- S. Inspection and Acceptance Procedures: The Architect will submit observation reports periodically during the construction phase detailing Contract deficiencies. The Contractor is responsible for making corrections immediately. Notice of Completion of the project will not be made until all items have been corrected.
- T. Substantial Completion of Electrical Systems:
1. Prior to Substantial Completion of operating electrical systems, the Contractor shall:
 - v. Provide materials of the type and quality specified and as necessary for proper operation, tested and ready for use.
 - w. Deliver to the Architect, the Record Drawings.
 - x. Furnish the required Operating and Maintenance Data/Manuals.
 - y. Clean up of the project pertaining to this Division of the work.
 - z. After installation has been completed and adjustments made, operate the system for a period of one week, during which time, demonstrate to the Architect that systems are complete and operating in conformance with Contract Documents.
 - aa. Conduct tests required and as specified in this Division and submit test reports and corrective actions taken.
 - bb. Submission of warranties and guarantees.
 2. Substantial Completion of Work Shall be Contingent On:
 - cc. Contractor replacing defective materials and workmanship.
 - dd. Upon completion of work and adjustments made, Contractor shall conduct an operating test for each system for approval at such time as Architect directs. Conduct test in presence of authorized representative of Architect and demonstrate that systems and equipment do operate in accordance with requirements of the Contract Documents and are free from electrical and mechanical defects.
 - ee. Contractor shall provide the necessary training programs and instructions to the Owner's representative. Number of hours or days as required under separate Sections of these Specifications.
 - ff. Submit copies of manufacturer's instructions and maintenance of electrical equipment including replacement parts lists. Each set shall include one set of shop drawings of equipment installed.
- U. Submittals for Change Orders: When changes are made during the construction phase, deletions and additions shall be presented in a manner that will indicate the cost of each item of material and corresponding labor. Markup shall be then added in accordance with the requirements of the General Conditions as modified by the Supplementary Conditions.
1. Unit pricing shall apply in event of changes, additions and deletions to the base Contract, as follows:

- gg. Submit a unit cost, covering one hour of labor, including all applicable supervision, nonproductive labor, burdens, benefits, insurance's, taxes, direct and indirect job expenses including drawings, engineering temporary power, warehouse, tools, equipment, clean-up, bonds, overhead and profit, charged for labor. Unit cost of labor shall be applicable for duration through completion of the project.
 - hh. Material unit costs shall be based on the latest edition of "Electrical Trade Book," published by Trade Service Publications, Inc., Unit cost shall be taken from extreme right-hand column.
 - 2. Labor unit quantities, for specific items as required by unit pricing and for equipment not covered by unit pricing shall be those listed in the third column from the National Electrical Contractors' Association, Inc., "NECA Manual of Labor Units."
 - 3. For material not covered by the Unit Pricing, use the latest edition of "Electrical Trade Book, extreme right hand column. This materials cost shall remain for the duration of the contract and shall apply to all phases of construction.
- V. The Contractor at a time convenient to the Owner shall provide instruction to the Owner's operating personnel in the proper operation and maintenance of the equipment and systems. The instructors shall have received factory training and shall be thoroughly familiar with the equipment installed. The operating personnel shall receive the number of days instruction as indicated in other sections.
- W. General Commissioning Requirements:
- 1. Attend Commissioning pre-construction meeting and other required meetings to facilitate coordination and execution of the commissioning scope.
 - 2. Provide the services of specialized technicians when required for certain tests and/or validation efforts. These services may come from the vendors of the equipment to be tested or from qualified independent testing services.
 - 3. Systems that will be commissioned are:
 - ii. Lighting system with occupant sensor controls.
- X. Commissioning Work in Cooperation with Other Trades:
- 1. Coordinate with the various vendors of products provided to obtain the extra descriptive data, submittal data, O&M manuals, documentation and other information required for submittal for commissioning purposes. Provide this information timely to the commissioning schedule outlined and/or as required by the commissioning provider.
 - 2. Arrange and pay for focused training materials and services provided by the various equipment vendors of products provided and installed for this project.
 - 3. For each of the systems categories outlined above, inform the vendors and subcontractors of the commissioning responsibilities incumbent on them to provide so they can offer their assistance and experience related to their products.
 - 4. Cooperate with and assist the mechanical contractor and the commissioning provider to and functional testing in accordance with the commissioning plan.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

SECTION 26 05 03 - EQUIPMENT WIRING CONNECTIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes electrical connections to equipment.
- B. Related Sections:
 - 1. Section 26 05 19 - Low-Voltage Electrical Power Conductors and Cables.
 - 2. Section 26 05 33 - Raceway and Boxes for Electrical Systems.

1.02 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA WD 1 - General Requirements for Wiring Devices.
 - 2. NEMA WD 6 - Wiring Devices-Dimensional Requirements.

1.03 SUBMITTALS

- A. Product Data: Submit wiring device manufacturer's catalog information showing dimensions, configurations, and construction.
- B. Manufacturer's installation instructions.

1.04 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations, sizes, and configurations of equipment connections.

1.05 COORDINATION

- A. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.
- B. Determine connection locations and requirements.
- C. Sequence rough-in of electrical connections to coordinate with installation of equipment.
- D. Sequence electrical connections to coordinate with start-up of equipment.

PART 2 - PRODUCTS

2.01 CORD AND PLUGS

- A. Manufacturers:
 - 1. Hubbell.
 - 2. Bryant.
 - 3. Leviton.
 - 4. Pass & Seymour
- B. Attachment Plug Construction: Conform to NEMA WD 1.
- C. Configuration: NEMA WD 6; match receptacle configuration at outlet furnished for equipment.

- D. Cord Construction: Type SO or SJO multiconductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.
- E. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify equipment is ready for electrical connection, for wiring, and to be energized.

3.02 EXISTING WORK

- A. Disconnect abandoned utilization equipment and remove wiring connections. Remove abandoned components when connected raceway is abandoned and removed. Install blank cover for abandoned boxes and enclosures not removed.
- B. Extend existing equipment connections using materials and methods compatible with existing electrical installations, or as specified.

3.03 INSTALLATION

- A. Make electrical connections.
- B. Make conduit connections to equipment using flexible conduit. Use liquid tight flexible conduit with watertight connectors in damp or wet locations.
- C. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.
- D. Install receptacle outlet to accommodate connection with attachment plug.
- E. Install cord and cap for field-supplied attachment plug.
- F. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
- G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
- H. Install terminal block jumpers to complete equipment wiring requirements.
- I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

3.04 ADJUSTING

- A. Cooperate with utilization equipment installers and field service personnel during checkout and starting of equipment to allow testing and balancing and other startup operations. Provide personnel to operate electrical system and checkout wiring connection components and configurations.

END OF SECTION

SECTION 26 05 19 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes building wire and cable; service entrance cable; metal clad cable; and wiring connectors and connections.
- B. Related Sections:
 - 1. Section 26 05 53 - Identification for Electrical Systems: Product requirements for wire identification.

1.02 REFERENCES

- A. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- B. National Fire Protection Association:
 - 1. NFPA 70 – National Electrical Code.
 - 2. NFPA 262 - Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces.
- C. Underwriters Laboratories, Inc.:
 - 1. UL 1277 - Standard for Safety for Electrical Power and Control Tray Cables with Optional Optical-Fiber Members.
- D. CEC – California Electrical Code.

1.03 SYSTEM DESCRIPTION

- A. Product Requirements: Provide products as follows:
 - 1. All stranded wire.
 - 2. Stranded conductors for control circuits.
 - 3. Conductor not smaller than 12 AWG for power and lighting circuits.
 - 4. Conductor not smaller than 16 AWG for control circuits.
 - 5. Increase wire size in branch circuits to limit voltage drop to a maximum of 3 percent.
- B. Wiring Methods: Provide the following wiring methods:

1.04 DESIGN REQUIREMENTS

- A. Feeder conductors sizes are based on copper and aluminum as indicated on plans. Branch circuit conductor sizes are based on copper.
- B. Use of type MC cable (metal-clad cable) permitted for branch circuit wiring except for circuit homerun. Use conduit with conductors for circuit homerun. Installation shall comply with CEC Article 330.

1.05 SUBMITTALS

- A. Product Data: Submit for building wire and each cable assembly type.
- B. Test Reports: Indicate procedures and values obtained.

- C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.
- D. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.06 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of components and circuits.

1.07 QUALITY ASSURANCE

- A. Provide wiring materials located in plenums with peak optical density not greater than 0.5, average optical density not greater than 0.15, and flame spread not greater than 5 feet when tested in accordance with NFPA 262.
- B. Perform Work in accordance with State and IEHP standards.
- C. Maintain one copy of each document on site.

1.08 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.09 FIELD MEASUREMENTS

- A. Verify field measurements are as indicated on Drawings.

1.10 COORDINATION

- A. Where wire and cable destination is indicated and routing is not shown, determine routing and lengths required.
- B. Wire and cable routing indicated is approximate unless dimensioned. Include wire and cable lengths within 10 ft of length shown.
- C. Determine required separation between cable and other work.
- D. Determine cable routing to avoid interference with other work.

PART 2 - PRODUCTS

2.01 BUILDING WIRE

- A. Manufacturers:
 - 1. AETNA.
 - 2. American Insulated Wire Corp.
 - 3. Colonial Wire.
 - 4. Encore Wire.
 - 5. General Cable Co.
 - 6. Republic Wire.
 - 7. Rome Cable.

8. Service Wire Co.
9. Southwire.
10. Superior Essex.
11. Okonite.
12. Carol.

- B. Product Description: Single conductor insulated wire.
- C. Conductor: Copper.
- D. Insulation Voltage Rating: 600 volts.
- E. Insulation Temperature Rating: 90 degrees C.
- F. Insulation Material: Thermoplastic.

2.02 WIRING CONNECTORS

- A. Split Bolt Connectors:
1. Burndy.
 2. IlSCO.
 3. OZ Gedney.
- B. Solderless Pressure Connectors:
1. Burndy.
 2. IlSCO.
 3. OZ Gedney.
- C. Spring Wire Connectors:
1. Burndy.
 2. IlSCO.
 3. OZ Gedney.
 4. 3M
 5. Ideal
- D. Compression Connectors:
1. Burndy.
 2. IlSCO.
 3. OZ Gedney.

2.03 TERMINATIONS

- A. Terminal Lugs for Wires 6 AWG and Smaller: Solderless, compression type copper.
- B. Lugs for Wires 4 AWG and Larger: Color keyed, compression type copper, with insulating sealing collars.
- C. Where standard terminating lugs does not fit the conductor sizes specified due to voltage drop considerations, provide proper terminal size or means to accommodate the wire sizes. Submit and obtain approval from the Engineer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify interior of building has been protected from weather.
- B. Verify mechanical work likely to damage wire and cable has been completed.

- C. Verify raceway installation is complete and supported.

3.02 PREPARATION

- A. Completely and thoroughly swab raceway before installing wire.

3.03 EXISTING WORK

- A. Remove exposed abandoned wire and cable, including abandoned wire and cable above accessible ceiling finishes. Patch surfaces where removed cables pass through building finishes.
- B. Disconnect abandoned circuits and remove circuit wire and cable. Remove abandoned boxes when wire and cable servicing boxes is abandoned and removed. Install blank cover for abandoned boxes not removed.
- C. Provide access to existing wiring connections remaining active and requiring access. Modify installation or install access panel.
- D. Extend existing circuits using materials and methods compatible with existing electrical installations, or as specified.
- E. Clean and repair existing wire and cable remaining or wire and cable to be reinstalled.

3.04 INSTALLATION

- A. Route wire and cable to meet Project conditions.
- B. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- C. Identify and color code wire and cable under provisions of Section 26 05 53. Identify each conductor with its circuit number or other designation indicated.
- D. Special Techniques--Building Wire in Raceway:
 - 1. Pull conductors into raceway at same time.
 - 2. Install building wire 4 AWG and larger with pulling equipment.
- E. Special Techniques - Cable:
 - 1. Protect exposed cable from damage.
 - 2. Support cables above accessible ceiling, per 26 05 29 – Hangers and Supports for Electrical Systems. Using spring metal clips or plastic cable ties to support cables from structure. Do not rest cable on ceiling panels.
 - 3. Use suitable cable fittings and connectors.
- F. Special Techniques - Wiring Connections:
 - 1. Clean conductor surfaces before installing lugs and connectors.
 - 2. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
 - 3. Tape uninsulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
 - 4. Install split bolt connectors for copper conductor splices and taps, 6 AWG and larger.
 - 5. Install solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
 - 6. Install insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
- G. Install terminal lugs on ends of 600 volt wires unless lugs are furnished on connected device, such as circuit breakers.

- H. Size lugs in accordance with manufacturer's recommendations terminating wire sizes. Install 2-hole type lugs to connect wires 4 AWG and larger to copper bus bars.
- I. For terminal lugs fastened together such as on motors, transformers, and other apparatus, or when space between studs is small enough that lugs can turn and touch each other, insulate for dielectric strength of 2-1/2 times normal potential of circuit.

3.05 WIRE COLOR

- A. General:
 - 1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the following:
 - a. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - b. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.
 - 2. For wire sizes 8 AWG and larger, identify wire with colored tape at terminals, splices and boxes. Colors are as follows:
 - c. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - d. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.
- B. Neutral Conductors: 120-208V White. 277-480V Gray. When two or more neutrals are located in one conduit, individually identify each with proper circuit number.
- C. Branch Circuit Conductors: Install three or four wire home runs with each phase uniquely color coded.
- D. Feeder Circuit Conductors: Uniquely color code each phase.
- E. Ground Conductors:
 - 1. For 6 AWG and smaller: Green.
 - 2. For 4 AWG and larger: Identify with green tape at both ends and visible points including junction boxes.
 - 3. Where isolated ground conductor is indicated on drawings, provide distinction between the green regular ground conductor insulation, normally green insulation with yellow stripe.

3.06 FIELD QUALITY CONTROL

- A. Inspect and test in accordance with NETA ATS, except Section 4.
- B. Perform inspections and tests listed in NETA ATS, Section 7.3.1.

END OF SECTION

SECTION 26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Rod electrodes.
 - 2. Active electrodes.
 - 3. Wire.
 - 4. Grounding well components.
 - 5. Mechanical connectors.

1.02 REFERENCES

- A. Institute of Electrical and Electronics Engineers:
 - 1. IEEE 142 - Recommended Practice for Grounding of Industrial and Commercial Power Systems.
 - 2. IEEE 1100 - Recommended Practice for Powering and Grounding Electronic Equipment.
- B. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. National Fire Protection Association:
 - 1. CEC - California Electrical Code. NFPA 70 – National Electrical Code.
 - 2. NFPA 99 - Standard for Health Care Facilities.

1.03 SYSTEM DESCRIPTION

- A. Grounding systems use the following elements as grounding electrodes:
 - 1. Metal underground water pipe.
 - 2. Metal building frame.
 - 3. Concrete-encased electrode.
 - 4. Metal underground gas piping system.
 - 5. Rod electrode.

1.04 DESIGN REQUIREMENTS

- A. Construct and test grounding systems for access flooring systems on conductive floors accordance with IEEE 1100.

1.05 PERFORMANCE REQUIREMENTS

- A. Grounding System Resistance: 5 ohms maximum.

1.06 SUBMITTALS

- A. Product Data: Submit data on grounding electrodes and connections.
- B. Test Reports: Indicate overall resistance to ground and resistance of each electrode.
- C. Manufacturer's Installation Instructions: Submit for active electrodes.
- D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.07 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of components and grounding electrodes.

1.08 QUALITY ASSURANCE

- A. Provide grounding materials conforming to requirements of NEC, IEEE 142, and UL labeled.
- B. Perform Work in accordance with State and Facility standards.
- C. Maintain one copy of each document on site.

1.09 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum three years documented experience approved by manufacturer.

1.10 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
- B. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.
- C. Do not deliver items to project before time of installation. Limit shipment of bulk and multiple-use materials to quantities needed for immediate installation.

1.12 COORDINATION

- A. Complete grounding and bonding of building reinforcing steel prior concrete placement.

PART 2 - PRODUCTS

2.01 ROD ELECTRODES

- A. Manufacturers:
 - 1. Erico, Inc.
 - 2. O-Z Gedney Co.
 - 3. Thomas & Betts, Electrical.
- B. Product Description:
 - 1. Material: Copper-clad steel.
 - 2. Diameter: 3/4 inch.
 - 3. Length: 10 feet.
- C. Connector: U-bolt clamp.

2.02 WIRE

- A. Material: Stranded copper.

- B. Foundation Electrodes: 4/0 AWG.
- C. Grounding Electrode Conductor: Copper conductor bare.
- D. Bonding Conductor: Copper conductor bare.

2.03 GROUNDING WELL COMPONENTS

- A. Well Pipe: 8 inches NPS by 24 inches long clay tile pipe with belled end.
- B. Well Cover: Cast iron with legend "GROUND" embossed on cover.

2.04 MECHANICAL CONNECTORS

- A. Manufacturers:
 - 1. Erico, Inc.
 - 2. ILSCO Corporation.
 - 3. O-Z Gedney Co.
 - 4. Thomas & Betts, Electrical.
- B. Description: Bronze connectors, suitable for grounding and bonding applications, in configurations required for particular installation.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verification of existing conditions before starting work.
- B. Verify final backfill and compaction has been completed before driving rod electrodes.

3.02 PREPARATION

- A. Remove paint, rust, mill oils, surface contaminants at connection points.

3.03 EXISTING WORK

- A. Modify existing grounding system to maintain continuity to accommodate renovations.
- B. Extend existing grounding system using materials and methods compatible with existing electrical installations, or as specified.

3.04 INSTALLATION

- A. Install in accordance with IEEE 142 and 1100.
- B. Install rod electrodes at each separately derived system as a minimum, and at locations as indicated on Drawings. Install additional rod electrodes to achieve specified resistance to ground.
- C. Install grounding and bonding conductors concealed from view.
- D. Install grounding well pipe with cover at rod locations as indicated on Drawings. Install well pipe top flush with finished grade.
- E. Equipment Grounding Conductor: Install separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.

- F. Install continuous grounding using underground cold water system and building steel as grounding electrode. Where water piping is not available, install artificial station ground by means of driven rods or buried electrodes.
- G. Permanently ground entire light and power system in accordance with CEC, including service equipment, distribution panels, lighting panelboards, switch and starter enclosures, motor frames, grounding type receptacles, and other exposed non-current carrying metal parts of electrical equipment.
- H. Install branch circuits feeding isolated ground receptacles with separate insulated grounding conductor, connected only at isolated ground receptacle, ground terminals, and at ground bus of serving panel where indicated on drawings.
- I. Accomplish grounding of electrical system by using insulated grounding conductor installed with feeders and branch circuit conductors in conduits. Size grounding conductors in accordance with CEC. Install from grounding bus of serving panel to ground bus of served panel, grounding screw of receptacles, lighting fixture housing, light switch outlet boxes or metal enclosures of service equipment. Ground conduits by means of grounding bushings on terminations at panelboards with installed number 12 conductor to grounding bus.
- J. Grounding electrical system using continuous metal raceway system enclosing circuit conductors in accordance with CEC.
- K. Permanently attach equipment and grounding conductors prior to energizing equipment.

3.05 FIELD QUALITY CONTROL

- A. Inspect and test in accordance with NETA ATS, except Section 4.
- B. Grounding and Bonding: Perform inspections and tests listed in NETA ATS, Section 7.13.
- C. Perform ground resistance testing in accordance with IEEE 142.
- D. Perform leakage current tests in accordance with NFPA 99.
- E. Perform continuity testing in accordance with IEEE 142.
- F. When improper grounding is found on receptacles, check receptacles in entire project and correct. Perform retest.

END OF SECTION

SECTION 26 05 29 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Conduit supports.
 - 2. Formed steel channel.
 - 3. Sleeves.
 - 4. Mechanical sleeve seals.
 - 5. Firestopping relating to electrical work.
 - 6. Firestopping accessories.
 - 7. Equipment bases and supports.

1.02 REFERENCES

- A. ASTM International:
 - 1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 2. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 - 3. ASTM E814 - Standard Test Method for Fire Tests of Through-Penetration Fire Stops.
 - 4. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems.
- B. FM Global:
 - 1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.
- C. National Fire Protection Association:
 - 1. CEC - California Electrical Code. NFPA 70 – National Electrical Code.
- D. Underwriters Laboratories Inc.:
 - 1. UL 263 - Fire Tests of Building Construction and Materials.
 - 2. UL 723 - Tests for Surface Burning Characteristics of Building Materials.
 - 3. UL 1479 - Fire Tests of Through-Penetration Firestops.
 - 4. UL 2079 - Tests for Fire Resistance of Building Joint Systems.
 - 5. UL - Fire Resistance Directory.
- E. Intertek Testing Services (Warnock Hersey Listed):
 - 1. WH - Certification Listings.

1.03 DEFINITIONS

- A. Firestopping (Through-Penetration Protection System): Sealing or stuffing material or assembly placed in spaces between and penetrations through building materials to arrest movement of fire, smoke, heat, and hot gases through fire rated construction.

1.04 SYSTEM DESCRIPTION

- A. Firestopping Materials: ASTM E119, ASTM E814, UL 263, and UL 1479 to achieve fire ratings as noted on Drawings for adjacent construction, but not less than 1 hour fire rating.
 - 1. Ratings may be 3-hours for firestopping in through-penetrations of 4-hour fire rated assemblies unless otherwise required by applicable codes.
- B. Firestop interruptions to fire rated assemblies, materials, and components.

1.05 PERFORMANCE REQUIREMENTS

- A. Firestopping: Conform to applicable code, FM and UL for fire resistance ratings and surface burning characteristics.
- B. Firestopping: Provide certificate of compliance from authority having jurisdiction indicating approval of materials used.

1.06 SUBMITTALS

- A. Shop Drawings: Indicate system layout with location and detail of trapeze hangers.
- B. Product Data:
 - 1. Hangers and Supports: Submit manufacturers catalog data including load capacity.
 - 2. Firestopping: Submit data on product characteristics, performance and limitation criteria.
- C. Firestopping Schedule: Submit schedule of opening locations and sizes, penetrating items, and required listed design numbers to seal openings to maintain fire resistance rating of adjacent assembly.
- D. Design Data: Indicate load carrying capacity of trapeze hangers and hangers and supports.
- E. Manufacturer's Installation Instructions:
 - 1. Hangers and Supports: Submit special procedures and assembly of components.
 - 2. Firestopping: Submit preparation and installation instructions.
- F. Manufacturer's Certificate: Certify products meet or exceed specified requirements.
- G. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.07 QUALITY ASSURANCE

- A. Through Penetration Firestopping of Fire Rated Assemblies: UL 1479 or ASTM E814 with 0.10 inch water gage minimum positive pressure differential to achieve fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.
 - 1. Wall Penetrations: Fire F-Ratings as indicated on Drawings, but not less than 1-hour.
 - 2. Floor Penetrations: Fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.
 - a. Floor Penetrations Within Wall Cavities: T-Rating is not required.
- B. Through Penetration Firestopping of Non-Fire Rated Floor and Roof Assemblies: Materials to resist free passage of flame and products of combustion.
 - 1. Noncombustible Penetrating Items: Noncombustible materials for penetrating items connecting maximum of three stories.
 - 2. Penetrating Items: Materials approved by authorities having jurisdiction for penetrating items connecting maximum of two stories.
- C. Fire Resistant Joints in Fire Rated Floor, Roof, and Wall Assemblies: ASTM E1966 or UL 2079 to achieve fire resistant rating as indicated on Drawings for assembly in which joint is installed.

- D. Fire Resistant Joints Between Floor Slabs and Exterior Walls: ASTM E119 with 0.10 inch water gage minimum positive pressure differential to achieve fire resistant rating as indicated on Drawings for floor assembly.
- E. Surface Burning Characteristics: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.
- F. Perform Work in accordance with State and Facility standards.
- G. Maintain one copy of each document on site.

1.08 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum five years documented experience approved by manufacturer.

1.09 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
- B. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. Environmental conditions affecting products on site.
- B. Do not apply firestopping materials when temperature of substrate material and ambient air is below 60 degrees F.
- C. Maintain this minimum temperature before, during, and for minimum 3 days after installation of firestopping materials.
- D. Provide ventilation in areas to receive solvent cured materials.

PART 2 - PRODUCTS

2.01 CONDUIT SUPPORTS

- A. Manufacturers:
 - 1. Allied Tube & Conduit Corp.
 - 2. Electroline Manufacturing Company.
 - 3. O-Z Gedney Co.
 - 4. B-line Systems.
 - 5. Unistrut Corp.
- B. Hanger Rods: Threaded high tensile strength galvanized carbon steel with free running threads.
- C. Beam Clamps: Malleable Iron, with tapered hole in base and back to accept either bolt or hanger rod. Set screw: hardened steel.

- D. Conduit clamps for trapeze hangers: Galvanized steel, notched to fit trapeze with single bolt to tighten.
- E. Conduit clamps - general purpose: One hole malleable iron for surface mounted conduits.
- F. Cable Ties: High strength nylon temperature rated to 185 degrees F. Self locking.

2.02 FORMED STEEL CHANNEL

- A. Manufacturers:
 - 1. Allied Tube & Conduit Corp.
 - 2. B-Line Systems.
 - 3. Midland Ross Corporation, Electrical Products Division.
 - 4. Unistrut Corp.
 - 5. Powerstrut.
- B. Product Description: Galvanized 12 gage thick steel. With 9/16 inch holes 8 inches on center.

2.03 SLEEVES

- A. Sleeves for Conduits Through Non-fire Rated Floors: 18 gage thick galvanized steel.
- B. Sleeves for Conduits Through Non-fire Rated Beams, Walls, Footings, and Potentially Wet Floors: Steel pipe or 18 gage thick galvanized steel.
- C. Sleeves for Conduits Through Fire Rated and Fire Resistive Floors and Walls, and Fire Proofing: Prefabricated fire rated sleeves including seals, UL listed.
- D. Fire-stopping Insulation: Glass fiber type, non-combustible.

2.04 MECHANICAL SLEEVE SEALS

- A. Manufacturers:
 - 1. Thunderline Link-Seal, Inc.
 - 2. NMP Corporation.
- B. Product Description: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between object and sleeve, connected with bolts and pressure plates causing rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

2.05 FIRESTOPPING

- A. Manufacturers:
 - 1. Dow Corning Corp.
 - 2. Fire Trak Corp.
 - 3. Hilti Corp.
 - 4. International Protective Coating Corp.
 - 5. 3M fire Protection Products.
 - 6. Specified Technology, Inc.
- B. Product Description: Different types of products by multiple manufacturers are acceptable as required to meet specified system description and performance requirements; provide only one type for each similar application.
 - 1. Silicone Firestopping Elastomeric Firestopping: Multiple component silicone elastomeric compound and compatible silicone sealant.
 - 2. Foam Firestopping Compounds: Single component foam compound.

3. Formulated Firestopping Compound of Incombustible Fibers: Formulated compound mixed with incombustible non-asbestos fibers.
4. Fiber Stuffing and Sealant Firestopping: Composite of mineral fiber stuffing insulation with silicone elastomer for smoke stopping.
5. Mechanical Firestopping Device with Fillers: Mechanical device with incombustible fillers and silicone elastomer, covered with sheet stainless steel jacket, joined with collars, penetration sealed with flanged stops.
6. Intumescent Firestopping: Intumescent putty compound which expands on exposure to surface heat gain.
7. Firestop Pillows: Formed mineral fiber pillows.

C. Color: As selected from manufacturer's full range of colors.

2.06 FIRESTOPPING ACCESSORIES

- A. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces and suitable for required fire ratings.
- B. Dam Material: Permanent:
 1. Mineral fiberboard.
 2. Mineral fiber matting.
 3. Sheet metal.
 4. Plywood or particle board.
 5. Alumina silicate fire board.
- C. Installation Accessories: Provide clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.
- D. General:
 1. Furnish UL listed products or products tested by independent testing laboratory.
 2. Select products with rating not less than rating of wall or floor being penetrated.
- E. Non-Rated Surfaces:
 1. Stamped steel, chrome plated, hinged, split ring escutcheons or floor plates or ceiling plates for covering openings in occupied areas where conduit is exposed.
 2. For exterior wall openings below grade, furnish modular mechanical type seal consisting of interlocking synthetic rubber links shaped to continuously fill annular space between conduit and cored opening or water-stop type wall sleeve.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verification of existing conditions before starting work.
- B. Verify openings are ready to receive sleeves.
- C. Verify openings are ready to receive firestopping.

3.02 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter affecting bond of firestopping material.
- B. Remove incompatible materials affecting bond.
- C. Install backing or damming materials to arrest liquid material leakage.

- D. Obtain permission from Architect/Engineer before drilling or cutting structural members.

3.03 INSTALLATION - HANGERS AND SUPPORTS

- A. Anchors and Fasteners:
 - 1. Concrete Structural Elements: Provide precast inserts, expansion anchors, and preset inserts.
 - 2. Steel Structural Elements: Provide beam clamps, spring steel clips, steel ramset fasteners, and welded fasteners.
 - 3. Concrete Surfaces: Provide expansion anchors.
 - 4. Hollow Masonry, Plaster, and Gypsum Board Partitions: Provide toggle bolts and hollow wall fasteners.
 - 5. Solid Masonry Walls: Provide expansion anchors.
 - 6. Sheet Metal: Provide sheet metal screws.
 - 7. Wood Elements: Provide wood screws.
- B. Install conduit and raceway support and spacing in accordance with CEC.
- C. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
- D. Install multiple conduit runs on common hangers.
- E. Supports:
 - 1. Fabricate supports from structural steel or formed steel channel. Install hexagon head bolts to present neat appearance with adequate strength and rigidity. Install spring lock washers under nuts.
 - 2. Install surface mounted cabinets and panelboards with minimum of four anchors.
 - 3. In wet and damp locations install steel channel supports to stand cabinets and panelboards 1 inch off wall.
 - 4. Support vertical conduit at every other floor.
- F. Do not use spring steel clips and clamps.
- G. Fabricate supports from structural steel or steel channel. Rigidly weld members or use hexagon head bolts to present neat appearance with adequate strength and rigidity. Use spring lock washers under all nuts.
- H. Install surface-mounted cabinets and panelboards with minimum of four anchors.
- I. In wet and damp locations uses steel channel supports to stand cabinets and panelboards one inch off wall.
- J. Use sheet metal channel to bridge studs above and below cabinets and panelboards recessed in hollow partitions.

3.04 INSTALLATION - FIRESTOPPING

- A. Install material at fire rated construction perimeters and openings containing penetrating sleeves, piping, ductwork, conduit and other items, requiring firestopping.
- B. Apply primer where recommended by manufacturer for type of firestopping material and substrate involved, and as required for compliance with required fire ratings.
- C. Apply firestopping material in sufficient thickness to achieve required fire and smoke rating, to uniform density and texture.
- D. Place foamed material in layers to ensure homogenous density, filling cavities and spaces. Place sealant to completely seal junctions with adjacent dissimilar materials.

- E. Remove dam material after firestopping material has cured.
- F. Fire Rated Surface:
 - 1. Seal opening at floor, wall, partition, ceiling, and roof as follows:
 - b. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
 - c. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
 - d. Pack void with backing material.
 - e. Seal ends of sleeve with UL listed fire resistive silicone compound to meet fire rating of structure penetrated.
 - 2. Where cable tray, conduit, and plenum rated cable penetrates fire rated surface, install firestopping product in accordance with manufacturer's instructions.
- G. Non-Rated Surfaces:
 - 1. Seal opening through non-fire rated wall, partition, floor, ceiling, and roof opening as follows:
 - f. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
 - g. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
 - h. Install type of firestopping material recommended by manufacturer.
 - 2. Install escutcheons, floor plates, or ceiling plates where conduit, penetrates non-fire rated surfaces in occupied spaces. Occupied spaces include rooms with finished ceilings and where penetration occurs below finished ceiling.
 - 3. Exterior wall openings below grade: Assemble rubber links of mechanical seal to size of conduit and tighten in place, in accordance with manufacturer's instructions.
 - 4. Interior partitions: Seal pipe penetrations at laboratories, computer rooms, telecommunication rooms, data rooms, and electrical rooms Apply sealant to both sides of penetration to completely fill annular space between sleeve and conduit.

3.05 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

- A. Provide housekeeping pads made of concrete, minimum 4 inches thick and extending 6 inches beyond supported equipment.
- B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
- C. Construct supports of steel members or formed steel channel. Brace and fasten with flanges bolted to structure.
- D. Refer to drawings for additional requirements.

3.06 INSTALLATION - SLEEVES

- A. Exterior watertight entries: Seal with adjustable interlocking rubber links.
- B. Conduit penetrations not required to be watertight: Sleeve and fill with silicon foam.
- C. Set sleeves in position in forms. Provide reinforcing around sleeves.
- D. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.
- E. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.
- F. Where conduit or raceway penetrates floor, ceiling, or wall, close off space between conduit or raceway and adjacent work with fire stopping insulation and caulk. Provide close fitting metal collar or escutcheon covers at both sides of penetration.

- G. Install stainless steel escutcheons at finished surfaces.

3.07 FIELD QUALITY CONTROL

- A. Inspect installed firestopping for compliance with specifications and submitted schedule.

3.08 CLEANING

- A. Clean adjacent surfaces of firestopping materials.

3.09 PROTECTION OF FINISHED WORK

- A. Protect adjacent surfaces from damage by material installation.

END OF SECTION

SECTION 26 05 33 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes conduit and tubing, surface raceways, wireways, outlet boxes, pull and junction boxes, and handholes.
- B. Related Sections:
 - 1. Section 26 05 03 - Equipment Wiring Connections.
 - 2. Section 26 05 26 - Grounding and Bonding for Electrical Systems.
 - 3. Section 26 05 29 - Hangers and Supports for Electrical Systems.
 - 4. Section 26 05 53 - Identification for Electrical Systems.
 - 5. Section 26 27 26 - Wiring Devices.

1.02 REFERENCES

- A. American National Standards Institute:
 - 1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
 - 2. ANSI C80.3 - Specification for Electrical Metallic Tubing, Zinc Coated.
 - 3. ANSI C80.5 - Aluminum Rigid Conduit - (ARC).
- B. National Electrical Manufacturers Association:
 - 1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
 - 2. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
 - 3. NEMA OS 1 - Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
 - 4. NEMA OS 2 - Nonmetallic Outlet Boxes, Device Boxes, Covers, and Box Supports.
 - 5. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
 - 6. NEMA TC 2 - Electrical Polyvinyl Chloride (PVC) Tubing and Conduit.
 - 7. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.

1.03 SYSTEM DESCRIPTION

- A. Raceway and boxes located as indicated on Drawings, and at other locations required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements. Raceway and boxes are shown in approximate locations unless dimensioned. Provide raceway to complete wiring system.
- B. Underslab 90 degree bends: Use PVC coated rigid conduit with bond bushings, with steel compression fittings. Use set screw fittings for indoor location.
- C. Underground or Under Slab: Use slurry encased PVC Schedule 40 or as noted on the drawings. Minimum size: 3/4 inch, unless otherwise noted.
- D. Outdoor Locations, Above Grade: Provide EMT conduit with compression fittings. Provide cast metal or nonmetallic outlet, pull, and junction boxes.
- E. Wet and Damp Locations: Provide rigid steel conduit. Provide cast metal or nonmetallic outlet, junction, and pull boxes. Provide flush mounting outlet box in finished areas.
- F. Concealed Dry Locations: Provide electrical metallic tubing not subjected to mechanical stresses for homeruns, essential systems and invasive patient care areas. Provide sheet-metal boxes. Provide flush mounting outlet box in finished areas. Provide screw cover enclosure for large pull boxes.

- G. Exposed Dry Locations: Provide EMT conduit with compression fittings. Provide sheet-metal boxes. Provide flush mounting outlet box in finished areas. Provide hinged enclosure for large pull boxes.
- H. Metallic conduits (feeders) shall be joined with set-screw type fittings.

1.04 DESIGN REQUIREMENTS

- A. Minimum Raceway Size: 3/4 inch unless otherwise specified. 1/2-inch raceway for control circuit.

1.05 SUBMITTALS

- A. Product Data: Submit for the following:
 - 1. Flexible metal conduit.
 - 2. Liquidtight flexible metal conduit.
 - 3. Nonmetallic conduit.
 - 4. Flexible nonmetallic conduit.
 - 5. Raceway fittings.
 - 6. Conduit bodies.
 - 7. Surface raceway.
 - 8. Wireway.
 - 9. Pull and junction boxes.
 - 10. Handholes.
- B. Manufacturer's Installation Instructions: Submit application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.
- C. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.06 CLOSEOUT SUBMITTALS

- A. Project Record Documents:
 - 1. Record actual routing of conduits larger than 2 inch.
 - 2. Record actual locations and mounting heights of outlet, pull, and junction boxes.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.
- B. Protect PVC conduit from sunlight.

1.08 COORDINATION

- A. Coordinate installation of outlet boxes for equipment connected under Section 26 05 03.
- B. Coordinate mounting heights, orientation and locations of outlets mounted above counters, benches, and backsplashes.

PART 2 - PRODUCTS

2.01 METAL CONDUIT

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Allied Tubing.
- B. Rigid Steel Conduit: ANSI C80.1.
- C. Intermediate Metal Conduit (IMC): Rigid steel.
- D. Fittings and Conduit Bodies: NEMA FB 1; material to match conduit.

2.02 PVC COATED METAL CONDUIT

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Okonite.
 - 7. Ocal Blue.
- B. Product Description: NEMA RN 1; rigid steel conduit with external PVC coating, 40 mil thick.
- C. Fittings and Conduit Bodies: NEMA FB 1; steel fittings with external PVC coating to match conduit.

2.03 FLEXIBLE METAL CONDUIT

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Allied Tubing.
- B. Product Description: Interlocked steel construction.
- C. Fittings: NEMA FB 1.

2.04 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Allied Tubing.

- B. Product Description: Interlocked steel construction with PVC jacket.
- C. Fittings: NEMA FB 1.

2.05 ELECTRICAL METALLIC TUBING (EMT)

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Allied Tubing.
- B. Product Description: ANSI C80.3; galvanized tubing.
- C. Fittings and Conduit Bodies: NEMA FB 1; steel set-screw type.

2.06 NONMETALLIC CONDUIT

- A. Manufacturers:
 - 1. Carlon Electrical Products.
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Walker Systems Inc.
 - 5. The Wiremold Co.
 - 6. Allied Tubing.
- B. Product Description: NEMA TC 2; Schedule 40 PVC.
- C. Fittings and Conduit Bodies: NEMA TC 3.

2.07 WIREWAY

- A. Manufacturers:
 - 1. Carlon Electrical Products (PVC Only).
 - 2. Hubbell Wiring Devices.
 - 3. Thomas & Betts Corp.
 - 4. Circle AW.
- B. Product Description: General purpose, raintight, oil tight, dust tight type wireway.
- C. Knockouts: Manufacturer's standard.
- D. Size: Minimum 6 x 6 inch; length as indicated on Drawings.
- E. Cover: Hinged, screw cover with full gaskets.
- F. Connector: Flanged.
- G. Fittings: Lay-in type with removable top, bottom, and side; captive screws, drip shield.
- H. Finish: Rust inhibiting primer coating with gray enamel finish.

2.08 OUTLET BOXES

- A. Manufacturers:
 - 1. Carlon Electrical Products.

2. Hubbell Wiring Devices.
 3. Thomas & Betts Corp.
 4. Walker Systems Inc.
 5. The Wiremold Co.
- B. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; furnish 1/2 inch male fixture studs where required.
 2. Concrete Ceiling Boxes: Concrete type.
- C. Nonmetallic Outlet Boxes: NEMA OS 2.
- D. Cast Boxes: NEMA FB 1, Type FD, aluminum cast ferrous alloy. Furnish gasketed cover by box manufacturer. Furnish threaded hubs.
- E. Wall Plates for Finished Areas: As specified in Section 26 27 26.
- F. Wall Plates for Unfinished Areas: Furnish gasketed cover.

2.09 PULL AND JUNCTION BOXES

- A. Manufacturers:
1. Carlon Electrical Products.
 2. Hubbell Wiring Devices.
 3. Thomas & Betts Corp.
 4. Walker Systems Inc.
 5. The Wiremold Co.
 6. Circle AW.
- B. Sheet Metal Boxes: NEMA OS 1, galvanized steel.
- C. Screw Cover Type Enclosures: As specified in Section 26 27 16.
- D. Surface Mounted Cast Metal Box: NEMA 250, Type 4; flat-flanged, surface mounted junction box:
1. Material: Galvanized cast iron.
 2. Cover: Furnish with ground flange, neoprene gasket, and stainless steel cover screws.
- E. In-Ground Cast Metal Box: NEMA 250, Type 6, outside or inside flanged, recessed cover box for flush mounting:
1. Material: Galvanized cast iron.
 2. Cover: Smooth nonskid cover with neoprene gasket and stainless steel cover screws. Traffic rated where vehicle traffic is possible.
 3. Cover Legend: "ELECTRIC" or "COMMUNICATION".
- F. Fiberglass Concrete Composite Handholes: Die-molded, glass-fiber concrete composite hand holes:
1. Cable Entrance: Pre-cut 6 inch x 6 inch cable entrance at center bottom of each side.
 2. Cover: Glass-fiber concrete composite weatherproof cover with nonskid finish. Traffic rated where vehicle traffic is possible.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify outlet locations and routing and termination locations of raceway prior to rough-in.

3.02 EXISTING WORK

- A. Remove exposed abandoned raceway, including abandoned raceway above accessible ceiling finishes. Cut raceway flush with walls and floors, and patch surfaces.
- B. Remove concealed abandoned raceway to its source.
- C. Disconnect abandoned outlets and remove devices. Remove abandoned outlets when raceway is abandoned and removed. Install blank cover for abandoned outlets not removed.
- D. Maintain access to existing boxes and other installations remaining active and requiring access. Modify installation or provide access panel.
- E. Extend existing raceway and box installations using materials and methods compatible with existing electrical installations, or as specified.
- F. Clean and repair existing raceway and boxes to remain or to be reinstalled.

3.03 INSTALLATION

- A. Ground and bond raceway and boxes in accordance with Section 26 05 26.
- B. Fasten raceway and box supports to structure and finishes in accordance with Section 26 05 29.
- C. Identify raceway and boxes in accordance with Section 26 05 53.
- D. Arrange raceway and boxes to maintain headroom and present neat appearance.

3.04 INSTALLATION - RACEWAY

- A. Raceway routing is shown in approximate locations unless dimensioned. Route to complete wiring system.
- B. Arrange raceway supports to prevent misalignment during wiring installation.
- C. Support raceway using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- D. Group related raceway; support using conduit rack. Construct rack using steel channel specified in Section 26 05 29; provide space on each for 25 percent additional raceways.
- E. Do not support raceway with wire or perforated pipe straps. Remove wire used for temporary supports.
- F. Verify that field measurements are as shown on drawings.
- G. Do not attach raceway to ceiling support wires or other piping systems.
- H. Verify routing and terminations locations of conduits prior to rough-in.
- I. Construct wireway supports from steel channel specified in Section 26 05 29.
- J. Route exposed raceway parallel and perpendicular to walls.
- K. Route raceway installed above accessible ceilings parallel and perpendicular to walls.
- L. Route concealed raceway parallel and perpendicular to walls, unless otherwise noted.

- M. Route conduit under slab from point-to-point.
- N. Maintain clearance between raceway and piping for maintenance purposes.
- O. Maintain 12 inch clearance between raceway and surfaces with temperatures exceeding 104 degrees F.
- P. Cut conduit square using saw or pipe cutter; de-burr cut ends.
- Q. Bring conduit to shoulder of fittings; fasten securely.
- R. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for minimum 20 minutes.
- S. Install conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.
- T. Install no more than equivalent of three 90 degree bends between boxes. Install conduit bodies to make sharp changes in direction, as around beams. Install factory elbows for bends in metal conduit larger than 2 inch size.
- U. Avoid moisture traps; install junction box with drain fitting at low points in conduit system.
- V. Install fittings to accommodate expansion and deflection where raceway crosses seismic, control and expansion joints.
- W. Install suitable pull string or cord in each empty raceway except sleeves and nipples.
- X. Install suitable caps to protect installed conduit against entrance of dirt and moisture.
- Y. Surface Raceway: Install flat-head screws, clips, and straps to fasten raceway channel to surfaces; mount plumb and level. Install insulating bushings and inserts at connections to outlets and corner fittings.
- Z. Close ends and unused openings in wireway.
- AA. Ground and bond conduit under provisions of Division 26 Grounding and Bonding for Electrical Systems.
- BB. Identify conduit under provisions of Division 26 Identification for Electrical Systems.
- CC. Normal and essential power must be installed in physically separate raceways.
- DD. Install nonmetallic conduit in accordance with manufacturer's instructions.
- EE. Fasten conduit supports to building structure and surfaces.
- FF. Do not attach conduit to ceiling support wires.
- GG. Arrange conduit to maintain headroom and present neat appearance.
- HH. Cut conduit square using saw or pipe cutter; de-burr cut ends.

3.05 INSTALLATION - BOXES

- A. Install wall mounted boxes at elevations to accommodate mounting heights as indicated on Drawings.
- B. Adjust box location up to 2 feet prior to rough-in to accommodate intended purpose.
- C. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26.
- D. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only. All boxes shall be accessible per CEC.
- E. In Accessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
- F. Locate flush mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.
- G. Do not install flush mounting box back-to-back in walls; install with minimum 6 inches separation. Install with minimum 24 inches separation in acoustic rated walls.
- H. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- I. Install stamped steel bridges to fasten flush mounting outlet box between studs.
- J. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
- K. Install adjustable steel channel fasteners for hung ceiling outlet box.
- L. Do not fasten boxes to ceiling support wires or other piping systems.
- M. Support boxes independently of conduit except cast box that is connected to two rigid metal conduits, with supported within 12" of box.
- N. Install gang box where more than one device is mounted together. Do not use sectional box.
- O. Install gang box with plaster ring for single device outlets.
- P. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements.
- Q. Install electrical boxes to maintain headroom and to present neat mechanical appearance.
- R. Install pullboxes and junction boxes above accessible ceiling and in unfinished areas only.
- S. Install boxes to preserve fire resistance rating of partitions and other elements, using materials and methods.
- T. Align adjacent wall-mounted outlet boxes for switches, thermostats, and similar devices with each other.
- U. Use flush mounting outlet boxes in finished area.
- V. Use cast outlet boxes in exterior locations exposed to the weather and wet locations.

- W. Use cast floor boxes for installations in slab on grade; formed steel boxes are acceptable for other installations.
- X. Set floor boxes level.
- Y. Large Pullboxes: Boxes larger than 100 cubic inches in volume or 12 inches in any dimension.
 - 1. Interior Dry Locations: Use screw cover enclosure under provisions of Division 26.
 - 2. Other Locations: Use surface-mounted cast metal box.

3.06 INTERFACE WITH OTHER PRODUCTS

- A. Install conduit to preserve fire resistance rating of partitions and other elements, using industry standard's materials and methods.
- B. Route conduit through roof openings for piping and ductwork or through suitable roof jack with pitch pocket. Coordinate location with roofing installation specification Section.
- C. Locate outlet boxes to allow luminaires positioned as indicated on Drawings.
- D. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
- E. Coordinate locations and sizes of required access doors with the Architect's drawings.
- F. Locate flush mounting box in masonry wall to require cutting of masonry at corner only. Coordinate masonry cutting to achieve neat opening.
- G. Coordinate mounting heights and locations of outlets mounted above counters, benches and backsplashes.

3.07 ADJUSTING

- A. Adjust flush-mounting outlets to make front flush with finished wall material.
- B. Install knockout closures in unused openings in boxes.

3.08 CLEANING

- A. Clean interior of boxes to remove dust, debris, and other material.
- B. Clean exposed surfaces and restore finish.

END OF SECTION

SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Nameplates.
 - 2. Labels.
 - 3. Wire markers.
 - 4. Conduit markers.
 - 5. Lockout Devices.
 - 6. Engraved Device Plates.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Submit manufacturer's catalog literature for each product required.
 - 2. Submit electrical identification schedule including list of wording, symbols, letter size, color coding, tag number, location, and function.
- B. Samples:
 - 1. Submit two samples of each type of identification products applicable to project.
- C. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.
- D. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.03 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of tagged devices; include tag numbers.

1.04 QUALITY ASSURANCE

- A. Perform Work in accordance with State and IEHP standards.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum five years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum five years documented experience approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Accept identification products on site in original containers. Inspect for damage.

- B. Accept materials on site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.
- C. Protect insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original wrapping.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Install labels and nameplates only when ambient temperature and humidity conditions for adhesive are within range recommended by manufacturer.

1.08 EXTRA MATERIALS

- A. Furnish two containers of spray-on adhesive.

PART 2 - PRODUCTS

2.01 NAMEPLATES

- A. Manufacturers:
 - 1. 3M.
 - 2. Panduit.
 - 3. Thomas & Betts.
- B. Product Description: Laminated three-layer plastic with engraved black letters on white contrasting background color. Provide red background on emergency power.
- C. Letter Size:
 - 1. Unit Substation, Transformer, Switchgear, Panelboards and Switchboard Centers: 1/4 inch; identify equipment designation, voltage rating, and source.
 - 2. Individual Circuit Breakers, Switches, and Motor Starters in Panelboards, Switchboards, and Motor Control Centers: 1/8 inch; identify circuit and load served, including location.
 - 3. Individual Circuit Breakers, Enclosed Switches and Motor Starters: 1/8 inch; identify voltage rating, ampere rating and load served including location.
 - 4. HVAC and Plumbing Control Equipment: 1/8 inch; identify equipment designation and equipment served including location.
- D. Minimum nameplate thickness: 1/8 inch.

2.02 LABELS

- A. Manufacturers:
 - 1. 3M.
 - 2. Panduit.
 - 3. Thomas & Betts.
- B. Labels: Embossed adhesive tape, with 3/16 inch white letters on black background. Provide red background for emergency power.

2.03 WIRE MARKERS

- A. Manufacturers:
 - 1. 3M.
 - 2. Panduit.
 - 3. Thomas & Betts.
- B. Description: Cloth tape, split sleeve, tubing type wire markers or thermal transfer marker plate.

- C. Locations: Each conductor in panelboard gutters, pullboxes, outlets and junction boxes and at each load connections.
- D. Legend:
 - 1. Power and Lighting Circuits: Branch circuit or feeder number as indicated on Drawings.
 - 2. Control Circuits: Control wire number as indicated on schematic and interconnection diagrams or shop drawings.

2.04 FEEDER CONDUIT AND RACEWAY MARKERS

- A. Manufacturers:
 - 1. 3M.
 - 2. Panduit.
 - 3. Thomas & Betts.
- B. Description: Labels fastened with adhesive.
- C. Color:
 - 1. 480 Volt System: Black lettering on white background.
 - 2. 208 Volt System: Black lettering on white background.
- D. Legend:
 - 1. Medium Voltage System: HIGH VOLTAGE.
 - 2. 480 Volt System: 480 VOLTS.
 - 3. 208 Volt System: 208 VOLTS.

2.05 LOCKOUT DEVICES

- A. Lockout Hasps:
 - 1. Manufacturers:
 - a. Panduit.
 - b. Ideal.
 - 2. Anodized aluminum hasp with erasable label surface; size minimum 7-1/4 x 3 inches.

2.06 STAINLESS STEEL WALL PLATES

- A. Covered plates for wall switches, dimmers and receptacles specified in Section 26 27 26 wiring devices.
 - 1. Letter Size: 1/8 inch high letters P-Touch Labels.
 - 2. Label Text Color: Black for normal and red for emergency.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Degrease and clean surfaces to receive adhesive for identification materials.

3.02 INSTALLATION

- A. Install identifying devices after completion of painting.
- B. Nameplate Installation:
 - 1. Install nameplate parallel to equipment lines.
 - 2. Install nameplate for each electrical distribution and control equipment enclosure with corrosive-resistant mechanical fasteners, or adhesive.
 - 3. Install nameplates for each control panel and major control components located outside panel with corrosive-resistant mechanical fasteners, or adhesive.
 - 4. Secure nameplate to equipment front using screws.

5. Secure nameplate to inside surface of door on recessed panelboard in finished locations.
6. Install nameplates for the following:
 - c. Distribution switchboards.
 - d. Panelboards.
 - e. Transformers.
 - f. Service Disconnects.
 - g. Variable frequency devices, motor control centers, disconnect switches, motor starters.
 - h. Low voltage cabinets or backboards.
 - i. Equipment Motor: Clearly identify on the nameplate of the equipment such as "Air Handling Unit AH-1" in lieu of abbreviated plan reference such as "AH-1". Also indicate source of power, panel and circuit number.
- C. Label Installation:
 1. Install label parallel to equipment lines.
 2. Install label for identification of individual control device stations.
 3. Install labels for permanent adhesion and seal with clear lacquer.
- D. Wire Marker Installation:
 1. Install wire marker for each conductor at panelboard gutters, pull boxes, outlet and junction boxes, and each load connection.
 2. Install wire marker for each telecommunication and fire alarm systems at headend equipment location, all telecom rooms, gutters, pullboxes, outlets and junction boxes.
- E. Conduit and Raceway Marker Installation:
 1. Install conduit and raceway marker for each conduit, raceway, longer than 6 feet.
 2. Conduit and Raceway Marker Spacing: 20 feet on center.
 3. Raceway Painting: Identify conduit using field painting in accordance with the Contract Documents.
 - j. Paint colored band on each conduit longer than 6 feet.
 - k. Paint bands 20 feet on center.
 - l. Color: Use Facility or
 - 1) 480 Volt System: Blue.
 - 2) 208 Volt System: Yellow.
 - 3) 4160V System: Brown.
- F. Engraved Wall Plates: Engrave all wall plates for wall switches and receptacles.

END OF SECTION

SECTION 26 07 26 - WIRING DEVICES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes wall switches; wall dimmers; receptacles; multioutlet assembly; and device plates and decorative box covers.
- B. Related Sections:
 - 1. Section 26 05 33 - Raceway and Boxes for Electrical Systems: Outlet boxes for wiring devices.

1.02 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA WD 1 - General Requirements for Wiring Devices.
 - 2. NEMA WD 6 - Wiring Devices-Dimensional Requirements.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's catalog information showing dimensions, colors, and configurations.
- B. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.04 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.

1.05 EXTRA MATERIALS

- A. Furnish two of each style, size, and finish wall plate.

PART 2 - PRODUCTS

2.01 RECEPTACLES

- A. Manufacturers:
 - 1. Pass & Seymour.
 - 2. Leviton.
 - 3. Hubble.
 - 4. Arrow Hart.
- B. Product Description: Pass & Seymour PT5362AI plug tail duplex receptacle with PTR65STR plug tail.
- C. Device Body: Ivory plastic.

- D. Configuration: NEMA WD 6, type as indicated on Drawings.
- E. Convenience Receptacle: Type 5-20R.
- F. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements. When possible, use Pass & Seymour PT2095I plug tail GFCI receptacles with PTR6STR plug tail.

2.02 WALL PLATES

- A. Manufacturers:
 - 1. Pass & Seymour.
 - 2. Leviton
 - 3. Hubbell
 - 4. Arrow Hart.
- B. Decorative Cover Plate: Stainless steel.
- C. Jumbo Cover Plate: Stainless steel.
- D. Weatherproof Cover Plate: Gasketed cast metal plate with hinged and gasketed device cover. Provide in use covers where indicated on drawing similar or equal to 'TAYMAC'.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify outlet boxes are installed at proper height.
- B. Verify wall openings are neatly cut and completely covered by wall plates.
- C. Verify branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.02 PREPARATION

- A. Clean debris from outlet boxes.
- B. Provide extension rings to bring outlet boxes flush with finished surface.

3.03 EXISTING WORK

- A. Disconnect and remove abandoned wiring devices.
- B. Modify installation to maintain access to existing wiring devices to remain active.
- C. Clean and repair existing wiring devices to remain or to be reinstalled.

3.04 INSTALLATION

- A. Install devices plumb and level.
- B. Install switches with OFF position down.
- C. Do not share neutral conductor on load side of dimmers.
- D. Install receptacles with grounding pole on top.

- E. Connect wiring device grounding terminal to outlet box with bonding jumper and branch circuit equipment grounding conductor.
- F. Install wall plates on flush mounted switches, receptacles, and blank outlets.
- G. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
- H. Connect wiring devices by wrapping solid conductor around screw terminal. Install stranded conductor for branch circuits 10 AWG and smaller. When stranded conductors are used in lieu of solid, use crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under device screws.
- I. Use jumbo size plates for outlets installed in masonry walls.
- J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- K. Devices fed from normal power shall be in physically separated box from devices fed from emergency power.
- L. GFCI receptacles shall be wired so that operation of the GFCI protection does not affect downstream loads.

3.05 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided under Section 26 05 33 to obtain mounting heights as specified and as indicated on drawings.
- B. Install device 48 inches above finished floor from top of the device box or faceplate.
- C. Install convenience receptacle 18 inches above finished floor from center of device, device box or faceplate.
- D. Install convenience receptacle 6 inches above back splash of counter.

3.06 FIELD QUALITY CONTROL

- A. Inspect each wiring device for defects.
- B. Operate each wall switch with circuit energized and verify proper operation.
- C. Verify each receptacle device is energized.
- D. Test each receptacle device for proper polarity.
- E. Test each GFCI receptacle device for proper operation.

3.07 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.08 CLEANING

- A. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

SECTION 26 28 13 - FUSES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes fuses and spare fuse cabinet.

1.02 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA FU 1 - Low Voltage Cartridge Fuses.
- B. CEC – California Electrical Code.
- C. Underwriters Laboratory Inc. (UL):
 - 1. 198C – High Interrupting Capacity Fuses, Current Limiting Type.
 - 2. 198E – Class R fuses.
 - 3. CEC – National Electrical Code with California Amendments.

1.03 DESIGN REQUIREMENTS

- A. Select fuses to provide appropriate levels of short circuit and overcurrent protection for the following components: wire, cable, bus structures, and other equipment. Design system to maintain component damage within acceptable levels during faults.
- B. Select fuses to coordinate with time current characteristics of other overcurrent protective elements, including other fuses, circuit breakers, and protective relays. Design system to maintain operation of device closest to fault operates.

1.04 FUSE PERFORMANCE REQUIREMENTS

- A. Power Load Feeder Switches Larger than 600 amperes: Class L (time delay).
- B. Power Load Feeder Switches: Class RK1 (time delay).
- C. Motor Load Feeder Switches: Class RK1 (time delay).
- D. Other Feeder Switches Larger than 600 amperes: Class L time delay.
- E. Other Feeder Switches: Class RK1 (time delay).
- F. Motor Branch Circuits: Class RK1 (time delay).

1.05 SUBMITTALS

- A. Product Data: Submit data sheets showing electrical characteristics, including time-current curves.
- B. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.06 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual sizes, ratings, and locations of fuses.

1.07 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.

1.08 MAINTENANCE MATERIALS

- A. Furnish two fuse pullers.

1.09 EXTRA MATERIALS

- A. Furnish three spare fuses of each Class, size, and rating installed.

PART 2 - PRODUCTS

2.01 FUSES

- A. Manufacturers:
 - 1. Bussman Division, Copper Industries, Inc.
 - 2. Little Fuse, Inc.
 - 3. Ferraz Shawmut.
- B. Dimensions and Performance: NEMA FU 1, Class as specified or as indicated on Drawings.
- C. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.02 CLASS RK1 (TIME DELAY) FUSES

- A. Manufacturers:
 - 1. Bussman Division, Copper Industries, Inc.
 - 2. Little Fuse, Inc.
 - 3. Ferraz Shawmut.
- B. Dimensions and Performance: NEMA FU 1.
- C. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.03 CLASS L (TIME DELAY) FUSES

- A. Manufacturers:
 - 1. Bussman Division, Copper Industries, Inc.
 - 2. Little Fuse, Inc.
 - 3. Ferraz Shawmut.
- B. Dimensions and Performance: NEMA FU 1.
- C. Voltage: Rating suitable for circuit phase-to-phase voltage.

2.04 SPARE FUSE CABINET

- A. Manufacturers:
 - 1. Circle AW.
 - 2. Hammond.

3. Carlon.

- B. Product Description: Wall-mounted sheet metal cabinet with shelves, suitably sized to store spare fuses and fuse pullers specified.
- C. Doors: Hinged. Keyed to match branch circuit panelboard.
- D. Finish: Gray enamel.

PART 3 - EXECUTION

3.01 EXISTING WORK

- A. Remove fuses from abandoned circuits.
- B. Maintain access to existing fuses and other installations remaining active and requiring access. Modify installation or provide access panel.

3.02 INSTALLATION

- A. Install fuse with label oriented so manufacturer, type, and size are easily read.
- B. Install spare fuse cabinet as indicated on Drawings.

END OF SECTION

SECTION 26 28 19 - ENCLOSED SWITCHES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes fusible and nonfusible switches.
- B. Related Sections:
 - 1. Section 26 28 13 - Fuses.

1.02 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA FU 1 - Low Voltage Cartridge Fuses.
 - 2. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).
- B. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. Underwriters Laboratory Inc. (UL):
 - 1. 198C – High Interrupting Capacity Fuses, Current Limiting Type.
 - 2. 198E – Class R fuses.
 - 3. CEC – National Electrical Code with California Amendments.

1.03 SUBMITTALS

- A. Product Data: Submit switch ratings and enclosure dimensions.
- B. Acceptance or no exceptions taken by the engineer on any substitution proposed by the contractor shall not be construed as relieving the contractor from compliance with the project's specifications and performance requirements nor departure there from. The contractor remains responsible for details and accuracy for confirming and correlating quantities and dimensions and for the selection of fabrication processes, techniques and assembly, coordination of his work with that of all other trades and making any needed modifications consequent to the substitution at his own cost and for performing the work in a safe manner.

1.04 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of enclosed switches and ratings of installed fuses.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

PART 2 - PRODUCTS

2.01 FUSIBLE SWITCH ASSEMBLIES

- A. Manufacturers:
 - 1. GE Electrical.
 - 2. Eaton-Cutler Hammer.

- 3. Square D.
- B. Product Description: NEMA KS 1, FSW-S-865; Type HD with externally operable handle interlocked to prevent opening front cover with switch in ON position, enclosed load interrupter knife switch. Handle lockable in OFF position.
- C. Fuse clips: Designed to accommodate NEMA FU 1, Class R fuses.
- D. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
 - 1. Interior Dry Locations: Type 1.
 - 2. Exterior Locations: Type 3R.
- E. Service Entrance: Switches identified for use as service equipment are to be labeled for this application. Furnish solid neutral assembly and equipment ground bar.
- F. Furnish switches with entirely aluminum current carrying parts.

2.02 NONFUSIBLE SWITCH ASSEMBLIES

- A. Manufacturers:
 - 1. GE Electrical.
 - 2. Eaton-Cutler Hammer.
 - 3. Square D.
- B. Product Description: NEMA KS 1, FSW-S-865; Type HD with externally operable handle interlocked to prevent opening front cover with switch in ON position, enclosed load interrupter knife switch. Handle lockable in OFF position.
- C. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
 - 1. Interior Dry Locations: Type 1.
 - 2. Exterior Locations: Type 3R.
- D. Furnish switches with entirely aluminum current carrying parts.

2.03 SWITCH RATINGS

- A. Switch Rating: Horsepower rated for AC or DC as indicated on Drawings.
- B. Short Circuit Current Rating: UL listed for 200,000 rms symmetrical amperes when used with or protected by Class R or Class J fuses (30-600 ampere switches employing appropriate fuse rejection schemes).

PART 3 - EXECUTION

3.01 EXISTING WORK

- A. Disconnect and remove abandoned enclosed switches.
- B. Maintain access to existing enclosed switches and other installations remaining active and requiring access. Modify installation or provide access panel.
- C. Clean and repair existing enclosed switches to remain or to be reinstalled.

3.02 INSTALLATION

- A. Install enclosed switches plumb. Provide supports in accordance with Section 26 05 29.

- B. Height:5 feet to operating handle.
- C. Install fuses for fusible disconnect switches. Refer to Section 26 28 13 for product requirements.
- D. Install engraved plastic nameplates in accordance with Section 26 05 53.
- E. Apply adhesive tag on inside door of each fused switch indicating NEMA fuse class and size installed.

3.03 FIELD QUALITY CONTROL

- A. Inspect and test in accordance with NETA ATS, except Section 4.
- B. Perform inspections and tests listed in NETA ATS, Section 7.5.

END OF SECTION

FEDERAL REQUIREMENTS

EXHIBIT 2

Federal Labor Standards Provisions

(Next Page)

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

EXHIBIT 3

Federal Equal Employment Opportunity / Affirmative Action Provisions

1. **EQUAL OPPORTUNITY CLAUSE.** During the performance of this contract, the contractor agrees as follows:
 - a. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - b. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
 - c. The contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - d. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
 - e. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
 - f. In the event of the contractor's noncompliance with the nondiscrimination clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole, or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
 - g. The contractor will include the provisions of Paragraph 1a through 1g in every subcontract or purchase order unless exempted by rule, regulations, or orders of

the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

2. **NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY** (Executive Order 11246)

- a. The Offeror's or Bidder's attention is called to the Equal Opportunity Clause and the Standard Federal Equal Employment Specifications set forth herein.
- b. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregated work force in each trade on all construction work in the covered area, are as follows:

Timetables

Location of Work by Standard Metropolitan Statistical Area (SMSA)	Goals for Minority Participation in Each Trade	Goals for Female Participation in Each Trade
0360 Anaheim-Santa Ana-Garden Grove, CA	11.9%	6.9%
4480 Los Angeles-Long Beach, CA	28.3%	6.9%
6000 Oxnard-Simi Valley-Ventura, CA	21.5%	6.9%
6780 Riverside-San Bernardino-Ontario, CA	19.0%	6.9%
7480 Santa Barbara-Santa Maria- Lompoc, CA	19.7%	6.9%
7320 San Diego, CA	16.9%	6.9%
6920 Sacramento, CA	16.1%	6.9%
8520 Tucson, Pima AZ	24.1%	6.9%
6200 Phoenix, Maricopa AZ	15.8%	6.9%

These goals are applicable to all the contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmation action obligations required by the specifications set forth in 41 CFR Part 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive

Order, and the regulations of 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- c. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
- d. As used in this notice, and in the contract resulting from this solicitation, the covered area is the Standard Metropolitan Statistical Area of Los Angeles-Long Beach, specifically the County of Los Angeles, State of California.

3. **STANDARD FEDERAL EQUAL EMPLOYMENT SPECIFICATIONS** (Executive Order 11246).

- a. As used in these specifications:
 - (1) Covered area means the geographical area described in the solicitation from which this contract resulted;
 - (2) Director means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - (3) Employer Identification Number (EIN) means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, United States Treasury Department Form 941.
 - (4) Minority includes:
 - (a) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin)
 - (b) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);
 - (c) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (d) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- b. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and

the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

- c. If the contractor is participating (pursuant to 41 CFR Part 60-4.5) in a Hometown Plan approved by the United States Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and time tables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO Clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- d. The contractor shall implement the specific affirmative action standards provided in paragraphs 3g (1) through 3g (16) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonable be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- e. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minority or women shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- f. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the United States Department of Labor.
- g. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its

actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- (1) Ensure and maintain working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- (2) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
- (3) Maintain a current file of the name, address, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.
- (4) Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.
- (5) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 3g (2) above.
- (6) Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy

on bulletin boards accessible to all employees at each location where construction work is performed.

- (7) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (8) Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- (9) Direct its recruitment efforts, both oral and written, to minority, female, and community organizations; to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment sources, the contractor shall send written notification to organizations such as the above, describing the opening, screening procedures, and tests to be used in the selection process.
- (10) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth, both on the site and in other areas of a contractor's work force.
- (11) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3, Uniform Guidelines on Employee Selection Procedures.
- (12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- (13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.
- (14) Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

- (15) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - (16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.
- h. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations 3g(1) through (16). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 3g(1) through (16) of these specifications provided that the contractor actively participates in the group, makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.
- i. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- j. The contractor shall not use the goals and timetables of affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
- k. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- l. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

- m. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative actions steps, at least as extensive as those standards prescribed in Paragraph 3g of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR Part 60-1.8 (Show Cause Notice).
 - n. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
 - o. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
 - p. The Director, from time to time, shall issue goals and timetables for minority and female utilization which shall be based on appropriate work force, demographic or other relevant data and which shall cover construction projects or construction contracts performed in specific geographic areas. The goals, which shall be applicable to each construction trade in a covered contractor's or subcontractor's entire work force which is working in the area covered by the goals and timetables, shall be published as notices in the Federal Register, and shall be inserted by the contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2.
4. **SPECIFIC EEO REQUIREMENTS.** For a federally assisted construction contract in excess of \$10,000, the contractor/subcontractor shall:
- a. Forward the following EEO certification forms to the contract awarding authority prior to contract award: Certification of Non-segregated Facilities and Certification with Regard to the Performance of Previous Contracts or Subcontracts Subject to the Equal Opportunity Clause and the Filing of Required Reports.
 - b. Submit a notification of subcontracts awarded to the Director, Office of Federal Contract Compliance Programs, United States Department of Labor - ESA, 200 Constitutional Avenue, NW, Room C3325, Washington, D.C., 20210, within 10 working days of award of any subcontract in excess of \$10,000, listing the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting date

and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

- c. Send a notice of the contractor's commitment to equal employment opportunity to labor unions or representatives of workers prior to commencement of construction work.
 - d. Display an equal employment opportunity poster in a conspicuous place available to employees and applicants for employment.
 - e. For contracts in excess of \$10,000, bind subcontractors to the Federal Equal Employment Opportunity requirements by including the provisions of Paragraphs 1 through 3, above, in the subcontract.
 - f. Upon commencement of construction work and until the work is completed, forward the Monthly Employment Utilization Report (Form CC-257) to the contract awarding authority by the end of each work month. With the initial monthly report, the contractor/subcontractor shall attach the Contractor's List of Federal and Non-Federal Work in Bid Condition Area to the monthly report.
5. **CIVIL RIGHTS ACT OF 1964.** Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.
6. **SECTION 109 OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974.** No person in the United States on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.
7. **THE AGE DISCRIMINATION ACT OF 1975.** No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.
8. **REHABILITATION ACT OF 1973.** No otherwise qualified individual with handicaps in the United States shall, solely by reason of his or her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal assistance.

EXHIBIT 4

Minority and Women-Owned Business Enterprise Plan

A. Background

The Awarding Agency is a recipient of federal housing and community development assistance through the U.S. Department of Housing and Urban Development (HUD). OMB Circular A-102 states that "It is national policy to award a fair share of contracts to small and minority business firms. Grantees shall take similar appropriate affirmative action to support of women's enterprises and are encouraged to procure goods and services from labor surplus areas." The Uniform Administrative Requirements of 24 CFR 85.36(e) require the Awarding Agency to "take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible." This requirement is applicable to contracting and subcontracting opportunities funded in whole or in part with the federal housing and community development assistance.

Further, the Awarding Agency is required to submit a report to HUD pertaining to the Awarding Agency's Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) contracting and subcontracting activity generated through the expenditure of HUD funds.

B. Policy

For the purpose of this contract award, the Awarding Agency shall utilize MBE/WBE firms to the greatest extent possible, feasible and legally permissible. This MBE/WBE Plan is guided by the preceding federal regulations and all other related federal and state laws and regulations governing discrimination, equal opportunity and affirmative action pertaining to federally-funded contract and subcontract activities.

The Awarding Agency requires all bidders to abide by these provisions and to make every effort to obtain MBE/WBE participation on this project. Failure to provide required MBE/WBE information to the Awarding Agency as required or requested in this bid solicitation may result in a determination by the Awarding Agency that the bidder is not a responsible bidder.

A successful bidder does not have to be a member of a minority group. What the Awarding Agency is attempting to do is make every possible effort to ensure the participation of MBE/WBE firms on this federally-funded contracting opportunity. This does not preclude the participation of firms that are not MBE/WBE. However, the MBE and WBE performing or providing services must not act merely as a passive conduit. In the event the Awarding Body has reason to question the authenticity of ownership of an MBE/WBE, the burden of proof is on the claimant and/or contracting party to provide documentation to substantiate the ownership and management of a particular MBE or WBE.

Whenever a joint venture MBE/WBE involves a business owned by minorities or women, the contractor shall provide the Awarding Agency with a full account of the nature of the relationship, the basis for creation, the particular financial participation and administrative responsibilities of the parties. The nature of the relationship shall be in writing, and conform to pertinent laws governing the relationships. The Awarding Agency shall have the right to review and make a determination on the propriety of same.

C. Definitions

- a. Minority and women business enterprises are defined as any financial institution, business, service, contracting business which is solely owned and operated by a minority group member or women or that is more than 50% owned by minority group members or women. If the enterprise is publicly owned, the minority/women members or stockholders must have at least 51% interest and possess control over management, capital and earnings.
- b. Minority Group Member- Black, Hispanic, Asian or Pacific Islander, American Indian or Alaskan Native, and women.
 - Black: A person with origins in any of the black racial groups of Africa.
 - Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American descent and Spanish culture. Portuguese are excluded from the Hispanic category and are classified according to their race.
 - Asian or Pacific Islander: A person having origins in the Far East, Southeast Asia, Indian subcontinent or Pacific Islands.
 - American Indian or Alaskan Native: A person with origins in original peoples of North America, and who maintain cultural identifications through tribal affiliation or community recognition.
- c. Other
 - Small Business Enterprise: A business which meets the definition of minority business enterprise or women business enterprise, and in addition, meets the small business size standards of the Small Business Administration.
 - Contractor/Subcontractor/Supplier: The individual, partnership, corporation or other legal entity entering into a contract with the City or the City's contractor to perform a portion of the work.

D. Outreach Efforts

Non MBE/WBE bidders must notify minority and women contractors, associations, minority interest groups, etc., of their intention to solicit bids for subcontracts from MBE/WBE firms. This may be accomplished in a variety of ways; however, the non-MBE/WBE bidder must demonstrate that good faith efforts were made to secure the participation of MBE/WBE firms.

E. Documentation Required from Bidders to Document Responsible MBE/WBE Outreach

As part of this contract opportunity, non MBE/WBE bidders must demonstrate that they have made the subcontracting opportunity known to at least three (3) MBE/WBE firms listed in a bona-fide listing of MBE/WBE firms. Such notification must be made at least two (2) weeks prior to bid opening via registered or certified mail. If the contractor has not achieved the participation goal, the Awarding Agency will determine whether the contractor made a good faith effort based on the outreach efforts that are documented on the MBE/WBE Tiered Compliance Plan.

1. To be considered responsible, bidders must submit the MBE/WBE Tiered Compliance Plan (included in this Bid Document/Solicitation) and all supporting documentation to:
 - Document their own MBE or WBE status, or
 - Document the award of MBE and WBE subcontracts to bona-fide firms, or

- Document the required minimum three (3) firm outreach effort and any other outreach efforts.

The good-faith effort Affidavit on the MBE/WBE Tiered Compliance Plan must be notarized.

2. Some examples of acceptable good-faith supporting documentation include:
 - Responses, proposals, bids from MBE and WBE, rejections and contractor's responses.
 - Contracts with MBE and WBE organizations, associations, related agencies, disseminating bid information.
 - Copies of registered/certified letters, etc.
 - Efforts undertaken by contractor(s) to assist MBE/WBE with obtaining plans, specification, sub bid requirements and bonding.
 - Assistance and encouragement of MBE/WBE and subcontractor participation in all areas of business environment.
 - Methods used in soliciting bids from MBE/WBE, subcontractors and suppliers by advertisements, trade publications, media, etc.
 - Contracts with MBE/WBE brokers, agents, owners, operators of equipment, etc.
 - Other efforts taken by contractor to encourage MBE/WBE participation.

F. Contract Award / Protest

Where a determination is made by Awarding Agency staff as part of the MBE/WBE Bid Evaluation that a bidder is not a MBE/WBE firm or has not made the good faith effort to ensure participation by eligible, WBE and MBE subcontractors, the bid may be deemed not responsible. A bidder whose bid is deemed not responsible may protest to the Contracting Officer of the Awarding Body in writing within 72 hours of the notification of such a determination. The Contracting Officer shall review the facts presented in the written appeal, including any supporting materials, and shall issue a determination and response on the merits of the appeal within ten (10) calendar days. The decision of the Contracting Officer shall be final.

EXHIBIT 5

Compliance with Clean Air and Water Acts

During the performance of this contract, the contractor and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall *furnish to* the owner, the following:

1. A stipulation by the contractor or subcontractors, that any facility to be utilized in the performance of any non exempt contract or subcontract, is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
2. Agreement by the contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued there under.
3. A stipulation that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the EPA List of Violating Facilities.
4. Agreement by the contractor that he will include, or cause to be included, the criteria and requirements in paragraph (1) through (4) of this section in every nonexempt subcontract and requiring that the contractor will take such action as the government may direct as a means of enforcing such provisions.

EXHIBIT 6
Worker's Compensation Certification

DATE

PROJECT NAME

PROJECT NUMBER

COMPANY NAME

PHONE

COMPANY ADDRESS

I certify, by signature below, that I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

EXHIBIT 7

List of Proposed Subcontractors or Sub-Tier Contractors

PROJECT NAME

PROJECT NUMBER

AWARDING AGENCY

COMPANY NAME

BID/CONTRACT/SUBCONTRACT DOLLAR AMOUNT

PHONE NUMBER

COMPANY ADDRESS

FAX NUMBER

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

E-MAIL

Contractor must list all subcontracts or sub-tier contracts involving labor at the site of construction, regardless of dollar amount or percentage of bid

Sub or Sub-tier Contractor's: Name, Address, and Telephone Number	Contractor License Number	Employer Identification Number	DUNS Number	Contract Amount	Estimated Start Date	Estimated Completion Date	Trade(s) to be Used

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

EXHIBIT 8
Certification of Understanding and Authorization

PROJECT NAME/NUMBER

AWARDING AGENCY

COMPANY NAME

COMPANY ADDRESS

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

This is to certify that the principal(s), and the authorized payroll officer listed below, have read the "Contractor's Guide to Prevailing Wage Requirements for Federally Assisted Construction" and the Federal Labor Standards Provisions (HUD-4010 form) and that both parties understand these requirements.

The following person is designated as the payroll officer for the company and is authorized to sign the Statement of Compliance that will accompany each weekly Certified Payroll Report for the project:

PAYROLL OFFICER: (Individual Responsible for Signing Statements of Compliance)

NAME

TITLE

SIGNATURE

DATE

PRINCIPAL OWNER / GENERAL PARTNER: (Listed on CSLB Personnel List)

NAME

TITLE

SIGNATURE

DATE

EXHIBIT 9

Request for Additional Classification and Rate

(Next Page)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT REPORT OF ADDITIONAL CLASSIFICATION AND RATE		HUD FORM 4230A <small>OMB Approval Number 2501-0011 (Exp. 01/31/2010)</small>						
1. FROM <i>(name and address of requesting agency)</i> 	2. PROJECT NAME AND NUMBER 							
4. BRIEF DESCRIPTION OF PROJECT 	3. LOCATION OF PROJECT <i>(City, County and State)</i> 							
	5. CHARACTER OF CONSTRUCTION <input type="checkbox"/> Building <input type="checkbox"/> Residential <input type="checkbox"/> Heavy <input type="checkbox"/> Other (specify) <input type="checkbox"/> Highway							
6. WAGE DECISION NO. <i>(include modification number, if any)</i> <input type="checkbox"/> COPY ATTACHED		7. WAGE DECISION EFFECTIVE DATE 						
8. WORK CLASSIFICATION(S) 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center; padding: 5px;">HOURLY WAGE RATES</th> </tr> <tr> <th style="width: 50%; text-align: center; padding: 5px;">BASIC WAGE</th> <th style="width: 50%; text-align: center; padding: 5px;">FRINGE BENEFIT(S) <i>(if any)</i></th> </tr> <tr> <td style="height: 150px;"></td> <td></td> </tr> </table>		HOURLY WAGE RATES		BASIC WAGE	FRINGE BENEFIT(S) <i>(if any)</i>		
HOURLY WAGE RATES								
BASIC WAGE	FRINGE BENEFIT(S) <i>(if any)</i>							
9. PRIME CONTRACTOR <i>(name, address)</i> 	10. SUBCONTRACTOR/EMPLOYER, IF APPLICABLE <i>(name, address)</i> 							
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Check All That Apply:</div> <input type="checkbox"/> The work to be performed by the additional classification(s) is not performed by a classification in the applicable wage decision. <input type="checkbox"/> The proposed classification is utilized in the area by the construction industry. <input type="checkbox"/> The proposed wage rate(s), including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage decision. <input type="checkbox"/> The interested parties, including the employees or their authorized representatives, agree on the classification(s) and wage rate(s). <input type="checkbox"/> Supporting documentation attached, including applicable wage decision.								
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Check One:</div> <input type="checkbox"/> Approved, meets all criteria. DOL confirmation requested. <input type="checkbox"/> One or more classifications fail to meet all criteria as explained in agency referral. DOL decision requested.								
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> <hr style="width: 80%; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Agency Representative <i>(Typed name and signature)</i> </div> <div style="text-align: center;"> <hr style="width: 80%; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Date</i> </div> </div> <div style="text-align: center; margin-top: 20px;"> <hr style="width: 80%; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Phone Number</i> </div>		<div style="border: 1px solid black; padding: 5px;"> FOR HUD USE ONLY LR2000: Log in: Log out: </div>						

HUD-4230A (8-03) PREVIOUS EDITION IS OBSOLETE

EXHIBIT 10

Non-Segregated Facilities Certification

PROJECT NAME

PROJECT NUMBER

BID/CONTRACT DOLLAR AMOUNT

COMPANY NAME

COMPANY ADDRESS

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

The federally-assisted construction contractor certifies that he/she does not and will not:

1. Maintain or provide, for his/her employees, any segregated facilities at any of his/her establishments.
2. Permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained.

The federally assisted contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term segregated facilities means any waiting room, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise.

The federally-assisted contractor agrees that (except where he/she has obtained identical certifications from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that he/she will retain such certifications in his/her files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

EXHIBIT 11

Past Performance Certification

PROJECT NAME

PROJECT NUMBER

NUMBER OF EMPLOYEES

COMPANY NAME

COMPANY ADDRESS

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

The ☐ bidder, ☐ proposed sub-contractor, hereby certifies that he/she ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10925, 11114, or 11246, and that he/she ☐ has, ☐ has not, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt). Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the U.S. Department of the Interior or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

SF-100 (EEO-1) must be filed by:

(A) All private employers who are:

- (1) Subject to Title VII of the Civil Rights Act of 1964 (as amended) with 100 or more employees.
- (2) Subject to Title VII who has fewer than 100 employees, if the company is owned or affiliated with another company, or there is centralized ownership, control or management so that the group legally constitutes a single enterprise, and the entire enterprise employs a total of 100 or more employees.

(B) All federal contractors (private employers), who:

- (1) Are not exempt as provided for by 41 CFR 60-1.5
- (2) Have 50 or more employees, and
 - a. Are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or
 - b. Serve as a depository of Government funds in any amount, or
 - c. Is a financial institution, which is an issuing, and paying agent for U.S. Savings Bonds and Notes.

EXHIBIT 12

Notice of Equal Employment Opportunity

TO:

NAME OF LABOR UNION, WORKERS REPRESENTATIVE, ETC.

ADDRESS

PROJECT NAME

PROJECT NUMBER

BID/CONTRACT DOLLAR AMOUNT

COMPANY NAME

COMPANY ADDRESS

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

The Undersigned currently holds a contract with _____ involving funds of the U. S. Government, or a subcontract with a prime contractor holding such contract.

You are advised that under the provisions of the above contract or subcontract, and in accordance with Executive Order 11246, the undersigned is obligated not to discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. This obligation not to discriminate in employment includes, but is not limited to the follow:

1. Hiring, placement, upgrading, transfer or demotion;
2. Recruitment, advertising or solicitation for employment;
3. Treatment during employment;
4. Rates of pay or other forms of compensation;
5. Selection for training, including apprenticeship; and
6. Layoff or termination.

This notice is furnished to you pursuant to the provisions of the above contract or subcontract and Executive Order 11246. Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

EXHIBIT 13

Minority and Women's Business Enterprise Tiered Compliance Plan

THIS PLAN MUST BE SUBMITTED WITH YOUR BID FOR THIS FEDERALLY-FUNDED CONTRACT OPPORTUNITY

PART 1

DATE	PROJECT NAME	PROJECT NUMBER
FIRM NAME	PHONE	
BUSINESS ADDRESS		

TYPE OF FIRM:

(Check One and Provide Information)

<input type="checkbox"/> Individual	Name of Owner	_____
<input type="checkbox"/> Corporation	State of Incorporation:	_____
<input type="checkbox"/> Partnership	Indicate General "G", Limited "L":	_____
	Name of Partners:	_____
<input type="checkbox"/> Joint Venture	Joint Venture Participants:	_____

Number of year(s) firm has been in business under present ownership: _____

OWNERSHIP DEMOGRAPHICS:

(Provide the number of owners by category and the percentage of ownership interest of those individuals by category)

	Black	Hispanic	Alaskan Native/ American Indian	Asian/ Pacific Islander	White	Women
Number						
% of Assets Owned						

OWNERSHIP INFORMATION:

(List each owner of the firm that has 5 percent or more of the shares in the firm)

Name	Race	Sex	Years of Ownership	Ownership Percentage	Voting Percentage

I certify that the information provided herein is true and correct.

Federal EIN: _____
 License _____
 Number: _____
 DUNS _____
 Number: _____

 SIGNATURE DATE

IF MORE THAN 50% MINORITY OR WOMEN OWNED, PROCEED TO PART 3. IF LESS, PROCEED TO PART 2 AND PROVIDE INFORMATION ON SUBCONTRACTS AWARDED TO MBE/WBE FIRMS.

PART 2**MBE AND WBE SUBCONTRACTS AWARDED**_____
DATE_____
PROJECT NAME_____
PROJECT NUMBER_____
FIRM NAME_____
PHONE_____
BID DATE_____
BID AMOUNT

*Provide information on each subcontract or supply contract awarded to MBE/WBE firms.
Attach a completed copy of Section 1 (previous page) for each MBE/WBE firm listed below.*

Subcontractor Firm Name	Scope of Work / Supplies to be Provided	Check One		Dollar amount contract:	If Certified MBE/WBE, List the Certifying Agency and Date of Certification:
		M B E	W B E		

I certify that the information provided herein is true and correct.

Subcontract Type	Dollar Amount	Percentage of Total Bid
MBE:	\$	%
WBE:	\$	%

SIGNATURE_____
DATE

IF MBE AND WBE FIRMS ARE NOT SUBCONTRACTED, PROCEED TO PART 3 AND COMPLETE THE CONTRACTING / GOOD FAITH EFFORT AFFIDAVIT

PART 3

CONTRACTING/GOOD-FAITH EFFORT AFFIDAVIT

This Affidavit must be signed, notarized and submitted with your bid or proposal. In addition, documentation must be attached to demonstrate that a good-faith effort was made to secure MBE/WBE participation. Your good-faith effort will be evaluated in accordance with the various criteria listed below.

Please initial where indicated that you have read and complied with each requirement. Complete the requested forms and provide the requested documentation as a part of this affidavit.

Good Faith Effort Evaluation Criteria

**Initial here
If true and correct**

1. The Bidder/Firm attended a pre-bid meeting hosted by the awarding agency to gain knowledge of the project requirements and goals.

Good Faith Effort Evaluation Criteria

Initial here
If true and correct

2. The Bidder/Firm advertised the availability of subcontracting or supply opportunities for MBE/WBE firms in connection with this project. If so, complete the following:
Media where advertised: _____
Media contact information: _____
Date(s) of advertisement: _____
Attach copies of the advertisement(s) to this form and submit with bid. _____
3. Interested potential MBE/WBE subcontractors were provided with the project plans and specifications. _____

Attach a list of MBE/WBE firms that received project plans and specifications. Include their address, city, state, zip code, contact person, telephone number. Provide a notation of any responses received from those firms.
4. Follow-up contacts were made with potential MBE/WBE firms which expressed an interest in the project. _____

Attach a list of MBE/WBE firms that your company followed-up with. Include their address, city, state, zip code, contact person, telephone number. Provide a notation of any responses received from those firms.
5. Assistance was requested from organizations which identify potential MBE/WBE firms. _____

Attach a list of organizations consulted to include the name of the organization, address, city, state, zip code, contact person, time and dates contracted, method contacted, and results.
6. Potential MBE/WBE firms were contacted and negotiation was made in good faith. _____

Attach a list of MBE/WBE firms that your company negotiated with. Include the name of the MBE/WBE firm, address, city, state, zip code, contact person, whether MBE or WBE, if plans or specifications were provided to the other party, and the results of your negotiations. Also attach copies of any internal documents that will evidence the same and submit with bid.
7. Potential MBE/WBE subcontractors were given technical assistance by the bidder or advised that technical assistance was available from the bidder to facilitate understanding of the contract requirements and to complete the paperwork necessary to participate in this contract. _____

Attach a list of MBE/WBE firms that your company provided assistance to. Include the name of the MBE/WBE firm, address, city, state, zip code, contact person, and a description of the technical assistance provided.

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief.

Under the penalty of perjury, I certify that the above information is true and correct.

SIGNATURE

DATE

TITLE

PHONE

(NOTARY SEAL)

EXHIBIT 14

Federal Lobbyist Certification

PROJECT NAME

PROJECT NUMBER

BID/CONTRACT DOLLAR AMOUNT

COMPANY NAME

COMPANY ADDRESS

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

Acting on behalf of the above named firm, as its Authorized Official, I make the following Certification to the U. S. Department of Housing and Urban Development and the body awarding this federally assisted construction contract:

1. No Federal appropriated funds have been paid by or on behalf of the above named firm to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of and Federal grant, loan or cooperative agreement, and any extension, continuation, renewal, amendment, or modification thereof, and;
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with this Federal contract, grant loan, or cooperative agreement, the above named firm shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions, and;
3. The above name firm shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreement) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into the transaction imposed by Section 1352 Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

AUTHORIZED OFFICIAL NAME

AUTHORIZED OFFICIAL TITLE/CAPACITY

AUTHORIZED OFFICIAL SIGNATURE

DATE

EXHIBIT 15

Section 3 Bid Package

ITEM

PURPOSE

Section 3 Clause:

This is a Section 3 Covered housing rehabilitation, housing construction or other public construction project. The provisions of 24 CFR 135.38 apply to contracts and subcontracts of \$100,000 or more.

Section 3 Bid Preference:

A bid preference is available to contractors who submit a reasonable bid and commit to achieving the Section 3 employment or subcontracting goals. First preference will be given to bidders who are a Section 3 Business at the time of bid. Second preference will be given to bidders who make a written commitment to meet the Section 3 goals through hiring and subcontracting.

Business Certification:

Used to document the status of a bidder or subcontractor as a Section 3 Business or as a business that is making a written commitment to meet the Section 3 goals through hiring or subcontracting to other Section 3 Businesses.

Economic Opportunity Plan:

Used to document that a bidder is making a written commitment to meet the Section 3 goals through new hires or subcontracting to other Section 3 Businesses. Subcontracted Section 3 Businesses must be documented with the Business Certification as a Section 3 business at the time of bid.

Outreach Efforts:

The successful bidder will be required to post a listing of all job openings (construction and non-construction) at the site of construction, City Hall, local community based employment agencies, and any trade unions or worker's representative organizations to which the contractor is a signatory. Contractors may utilize the Notice of Section 3 Commitment form for this purpose.

Resident Certifications:

Used to document each individual claimed on a Business Certification form as a Section 3 Resident (owners or employees) and to document new hires.

Economic Opportunity Report:

Section 3 covered contractors are required to submit a Section 3 Economic Opportunity Report on July 1st and with their final Certified Payroll Report to document all Section 3 hiring activity and outreach efforts during the project.

Section 3 Clause

24 CFR Part 135

- a. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by the U.S. Department of Housing and Urban Development (HUD) assistance or HUD assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- b. The parties to this contract will comply with HUD's regulations as set forth in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
- c. The contractor agrees to send to each labor organization or representative of workers which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 Clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall; describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each, and the name and location of the persons taking applications for each of the positions, and the anticipated date the work shall begin.
- d. The contractor agrees to include this Section 3 Clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 Clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of regulations under 24 CFR Part 135.
- e. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected, but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, where not filled to circumvent the contractor's obligations under 24 CFR Part 135.
- f. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- g. With respect to work performed in connection with Section 3 covered Indian Housing Assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that the greatest extent feasible; (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

Section 3 Bid Preference Evaluation and Contract Award Criteria

First preference for this contract award will be given to a bidder who provides a reasonable bid and is a qualified Section 3 Business Concern. Second preference will be given to a bidder who provides a reasonable bid and commits to achieving the Section 3 employment, training and subcontracting opportunity goals by submitting a written commitment (Economic Opportunity Plan).

Prior to determining preference based on Section 3 responsiveness, the City will evaluate all bids received to determine which bidders are responsive to all of the other contract requirements (excluding Section 3). Those bids that meet all of the other project requirements besides Section 3 are deemed responsive and responsible bidders who may then be evaluated to determine if a bid preference shall be given based on responsiveness to Section 3.

A Section 3 responsive bidder is a bidder that submits a Section 3 Business Certification form with the bid, and:

1. Qualifies as a Section 3 Business concern because the business:
 - Provides the Section 3 Resident Certification form(s) for each qualified owner or employee to document that the business is:
 - 51% owned by Section 3 Residents, or
 - 30% or more of its permanent full-time employees are Section 3 Residents.

- OR -
2. Makes a written commitment by submitting a Section 3 Economic Opportunity Plan with their bid indicating that the bidder will:
 - Hire at least 30 percent aggregate new-hires that are Section 3 Residents, and
 - Provide the Section 3 Resident Certification form(s) for 30 percent of the new hires it commits to make during the course of the project, or
 - Subcontracts 25 percent or more of the bid amount to Section 3 Business Concern(s), and
 - Ensure that the Business Concern(s) provide Section 3 Resident Certification form(s) for each owner or employee claimed as a Section 3 Resident.

If the contract is awarded based upon the written commitment, the contractor will be responsible to document all outreach efforts made to recruit Section 3 resident new-hires. Additionally, the recipient of a Section 3 contract who commits to the Section 3 goal is required to submit a Section 3 Economic Opportunity Report by July 1st or with their final Certified Payroll Report submission, whichever occurs first.

A Section 3 non-responsive bidder is a bidder that:

1. Fails to provide a Section 3 Business Certification form with appropriate supporting documentation to demonstrate that the bidder is a Section 3 Business; or
2. Fails to document that their intention to meet the Section 3 goals by submitting a Section 3 Business Certification form and an Economic Opportunity Plan with the bid response.

In order for bid to receive preference based on Section 3 responsiveness over other bidder(s) that are non-responsive to Section 3, the bid must be reasonable. If the bid is not reasonable, the preference may not be given and the contract shall be awarded to the lowest responsible bidder.

A reasonable bid is not more than the value of "X" higher than the lowest bid. This is determined as follows:

1. The actual dollar amount of the lowest bid, **PLUS**
2. The **"X" FACTOR**, which is the lesser of:
 - a. The dollar amount of the required percentage listed on the chart below of the lowest bid, or
 - b. The actual dollar amount listed on the chart below.
3. This equals the **MAXIMUM ACCEPTABLE BID**, thus defining the Zone of Consideration.

Zone of Consideration

If the Lowest Bid is		The "X" FACTOR is the lesser of	
At Least	But Less Than		
\$100,000	N/A	10%	\$9,000
\$100,000	\$200,000	9%	\$16,000
\$200,000	\$300,000	8%	\$21,000
\$300,000	\$400,000	7%	\$24,000
\$400,000	\$500,000	6%	\$25,000
\$500,000	\$1,000,000	5%	\$40,000
\$1,000,000	\$2,000,000	4%	\$60,000
\$2,000,000	\$4,000,000	3%	\$80,000
\$4,000,000	\$7,000,000	2%	\$105,000
\$7,000,000		1.5%	

The City uses the Section 3 Bid Evaluation Memorandum to document its analysis of bids to determine whether or not preference will be given.

In the event that all bidders are non-responsive to Section 3, or that the only Section 3 responsive bidders are outside of the Zone of Consideration, the provisions of the Section 3 Clause remain in effect for the duration of the contract. This means that if any new hiring is undertaken by firms with a Section 3 Covered contract or subcontract, 30 percent of the aggregate new hires shall be Section 3 Residents. Hiring activity on the part of Section 3 Covered contractors shall be documented on the Section 3 Economic Opportunity Report. In the event that no new hires were made, the contractor shall indicate this on the Section 3 Economic Opportunity Report and shall be responsible for the submittal of the report on July 1st or with the final Certified Payroll Report, whichever occurs first.

Section 3 Business Certification Form

Federal Compliance Form – To be submitted with Bid to be Responsive to Section 3

PROJECT NAME

PROJECT NUMBER

BID/CONTRACT AMOUNT

BUSINESS NAME

BUSINESS ADDRESS

TELEPHONE NUMBER

LICENSE NUMBER

EMPLOYER IDENTIFICATION NUMBER

DUNS NUMBER

1. The above named business is a Section 3 Business Concern based on the following qualifications:

☐ **51-percent owned by Section 3 Residents**

Number of Section 3 Resident Owners: ____ / Number of Owners: ____ = % ____

(Attach Resident Certifications for all Section 3 owners claimed)

☐ **At least 30-percent of permanent, full-time employees are Section 3 Residents**

Number of Section 3 employees ____ / all full-time employees ____ = ____%

(Attach Resident Certifications for all Section 3 employees claimed)

2. The above named business is not a Section 3 business Concern, but commits to meeting the Section 3 goal on this project by:

☐ **Making a Written Commitment – (Submit Section 3 Economic Opportunity Plan)**

The Section 3 Economic Opportunity Plan (attached) submitted by our company declares our intention to incorporate Section 3 into our normal hiring practices beginning with all openings effective on or after the date of contract award, with the goal of becoming a Section 3 Business Concern. On this project, our company will:

Hire Section 3 qualified residents at least 30-percent aggregate new hire positions, and/or Subcontract 25-percent or more of the contract amount to Section 3 Businesses.

(Attach the Section 3 Economic Opportunity Plan, Business Certifications for all Section 3 subcontracts claimed, and collect Section 3 Resident Certifications throughout the duration of the project)

The undersigned declares that the above information is complete and correct.

OWNER/PRINCIPAL NAME

SIGNATURE

DATE

Section 3 Economic Opportunity Plan

Must be submitted with Bid if Box 2 is checked on the Section 3 Business Certification

NOTE: THIS SUBMITTAL MUST INCLUDE NUMERICAL GOALS IN ORDER TO BE RESPONSIVE TO SECTION 3. PART I OR PART II MUST REFLECT NUMERICAL HIRING OR CONTRACTING GOALS.

NAME AND ADDRESS OF CONTRACTOR	FEDERAL IDENTIFICATION: (CONTRACT NO.)	DOLLAR AMOUNT OF BID/AWARD:
	CONTACT PERSON	BID OPENING DATE
	PHONE	FAX

Part I: Employment and Training Commitment

Job Classification	Total New hires	Section 3 New hires	% New hires who are Section 3 Residents
Professionals			%
Technicians			%
Office/Clerical			%
Trade:			%
Trade:			%
Trade:			%
Trade:			%
Trade:			%
Trade:			%
Total:			%

Part II: Contract Award Commitment to Section 3 Businesses (Subcontractors, Suppliers, etc.)

Name of Section 3 business concern	Specify construction or non-construction contract	Contract Amount
		\$
		\$
		\$
		\$
		\$
		\$
		\$
Total:		\$
Percentage of the Prime Contract to be awarded to Section 3 Business Concerns:		%

Sample Outreach Efforts for Contractors Seeking to Hire Section 3 Residents

A Section 3 responsive bidder who commits to hire Section 3 Residents by directing employment and training opportunities toward low- and very low-income persons, particularly those who are recipients of government assistance for housing, may use any combination of outreach efforts to meet the Section 3 commitment made when a Section 3 Economic Opportunity Plan has been submitted.

REMEMBER: All employees of a business/firm count toward meeting your Section 3 compliance goals—Section 3 New Hires do not have to be construction workers, they just have to be a part of your permanent, full-time staff.

- At the beginning of the project, and subsequently as positions become available, the Notice of Section 3 Commitment shall be submitted to and/or posted at the following locations:
 - At the site of construction; and
 - At any trade unions or worker's representatives organizations to which the contractor is a signatory.
- Submit a request for dispatch of apprentices to local apprenticeship committees.
- Enter into "first-source" hiring agreements with organizations representing Section 3 residents, such as a local Workforce Investment Board.
- Sponsor a HUD-certified "Step-Up" employment and training program for Section 3 residents.
- Advertise training and employment positions by distributing flyers (Notice of Section 3 Commitment or other flyer that identifies the positions to be filled, the qualifications required, and where to obtain additional information about the application process) to every occupied dwelling unit in the housing development(s) adjacent to the project site.
- Post training and employment position flyers in public housing developments, offices of the local government, and other conspicuous places.
- Contact State-approved apprenticeship programs to gain access to potentially low-income residents who are actively seeking job-placement and training.
- Contact agencies administering HUD Youthbuild programs, and requesting their assistance to recruit current HUD Youthbuild program participants who are in need of permanent placement.
- Advertise any positions to be filled through the local media, such as community television networks, newspapers of general circulation, or commonly-used job placement websites such as www.monster.com

Section 3 Resident Certification
Employee Residing in Los Angeles County

Submit with Bid if Box 1 is checked on Section 3 Business Certification or for New Hires

NAME _____

ADDRESS _____

I hereby certify that I am a Section 3 resident; based on the following qualification(s):

1. ☐ I am a Public Housing Resident:

NAME OF PUBLIC HOUSING SITE _____

ADDRESS OF PUBLIC HOUSING SITE _____

2. ☐ I am a low-income resident of the metropolitan area and:

2012 INCOME LIMITS

My household Size is:	My household's gross annual income from all sources is:
<input type="checkbox"/>	\$46,500 or less
<input type="checkbox"/>	\$53,150 or less
<input type="checkbox"/>	\$59,800 or less
<input type="checkbox"/>	\$66,400 or less
<input type="checkbox"/>	\$71,750 or less
<input type="checkbox"/>	\$77,050 or less
<input type="checkbox"/>	\$82,350 or less
<input type="checkbox"/>	\$87,650 or less

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief. I understand the information I provide in this certification is subject to verification, and I agree to provide necessary documentation if requested.

Under the penalty of perjury, I certify that the above information is true and correct.

EMPLOYEE SIGNATURE

DATE

To be Completed by Employer:

The above-named person was hired previous to this certification on: _____

The above-named person is a new hire as of: _____

The above-named person's job title is: _____

Company Name: _____

Employer Name/Signature: _____

Section 3 Resident Certification Employee Residing in Orange County

Submit with Bid if Box 1 is checked on Section 3 Business Certification or for New Hires

NAME _____

ADDRESS _____

I hereby certify that I am a Section 3 resident; based on the following qualification(s):

1. ☐ I am a Public Housing Resident:

NAME OF PUBLIC HOUSING SITE _____

ADDRESS OF PUBLIC HOUSING SITE _____

2. ☐ I am a low-income resident of the metropolitan area and:

2012 INCOME LIMITS

My household Size is:	My household's gross annual income from all sources is:
<input type="checkbox"/>	\$52,500 or less
<input type="checkbox"/>	\$60,000 or less
<input type="checkbox"/>	\$67,500 or less
<input type="checkbox"/>	\$74,950 or less
<input type="checkbox"/>	\$80,950 or less
<input type="checkbox"/>	\$86,950 or less
<input type="checkbox"/>	\$92,950 or less
<input type="checkbox"/>	\$98,950 or less

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief. I understand the information I provide in this certification is subject to verification, and I agree to provide necessary documentation if requested.

Under the penalty of perjury, I certify that the above information is true and correct.

EMPLOYEE SIGNATURE

DATE

To be Completed by Employer:

The above-named person was hired previous to this certification on: _____

The above-named person is a new hire as of: _____

The above-named person's job title is: _____

Company Name: _____

Employer Name/Signature: _____

Section 3 Resident Certification
Employee Residing in San Bernardino County / Riverside County
Submit with Bid if Box 1 is checked on Section 3 Business Certification or for New Hires

NAME _____

ADDRESS _____

I hereby certify that I am a Section 3 resident; based on the following qualification(s):

1. ☐ I am a Public Housing Resident:

NAME OF PUBLIC HOUSING SITE _____

ADDRESS OF PUBLIC HOUSING SITE _____

2. ☐ I am a low-income resident of the metropolitan area and:

2012 INCOME LIMITS

My household Size is:	My household's gross annual income from all sources is:
<input type="checkbox"/>	\$34,800 or less
<input type="checkbox"/>	\$39,800 or less
<input type="checkbox"/>	\$44,750 or less
<input type="checkbox"/>	\$49,700 or less
<input type="checkbox"/>	\$53,700 or less
<input type="checkbox"/>	\$57,700 or less
<input type="checkbox"/>	\$61,650 or less
<input type="checkbox"/>	\$65,650 or less

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief. I understand the information I provide in this certification is subject to verification, and I agree to provide necessary documentation if requested.

Under the penalty of perjury, I certify that the above information is true and correct.

EMPLOYEE SIGNATURE

DATE

To be Completed by Employer:

The above-named person was hired previous to this certification on: _____

The above-named person is a new hire as of: _____

The above-named person's job title is: _____

Company Name: _____

Employer Name/Signature: _____

Section 3 Resident Certification
Employee Residing in San Diego County

Submit with Bid if Box 1 is checked on Section 3 Business Certification or for New Hires

NAME _____

ADDRESS _____

I hereby certify that I am a Section 3 resident; based on the following qualification(s):

1. ☐ I am a Public Housing Resident:

NAME OF PUBLIC HOUSING SITE _____

ADDRESS OF PUBLIC HOUSING SITE _____

2. ☐ I am a low-income resident of the metropolitan area and:

2012 INCOME LIMITS

My household Size is:	My household's gross annual income from all sources is:
<input type="checkbox"/>	\$45,400 or less
<input type="checkbox"/>	\$51,850 or less
<input type="checkbox"/>	\$58,350 or less
<input type="checkbox"/>	\$64,800 or less
<input type="checkbox"/>	\$70,000 or less
<input type="checkbox"/>	\$75,200 or less
<input type="checkbox"/>	\$80,400 or less
<input type="checkbox"/>	\$85,550 or less

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief. I understand the information I provide in this certification is subject to verification, and I agree to provide necessary documentation if requested.

Under the penalty of perjury, I certify that the above information is true and correct.

EMPLOYEE SIGNATURE

DATE

To be Completed by Employer:

The above-named person was hired previous to this certification on: _____

The above-named person is a new hire as of: _____

The above-named person's job title is: _____

Company Name: _____

Employer Name/Signature: _____

Section 3 Resident Certification Employee Residing in Ventura County

Submit with Bid if Box 1 is checked on Section 3 Business Certification or for New Hires

NAME _____

ADDRESS _____

I hereby certify that I am a Section 3 resident; based on the following qualification(s):

1. ☐ I am a Public Housing Resident:

NAME OF PUBLIC HOUSING SITE _____

ADDRESS OF PUBLIC HOUSING SITE _____

2. ☐ I am a low-income resident of the metropolitan area and:

2012 INCOME LIMITS

My household Size is:	My household's gross annual income from all sources is:
<input type="checkbox"/>	\$50,750 or less
<input type="checkbox"/>	\$58,000 or less
<input type="checkbox"/>	\$65,250 or less
<input type="checkbox"/>	\$72,500 or less
<input type="checkbox"/>	\$78,300 or less
<input type="checkbox"/>	\$84,100 or less
<input type="checkbox"/>	\$89,900 or less
<input type="checkbox"/>	\$95,700 or less

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief. I understand the information I provide in this certification is subject to verification, and I agree to provide necessary documentation if requested.

Under the penalty of perjury, I certify that the above information is true and correct.

EMPLOYEE SIGNATURE

DATE

To be Completed by Employer:

The above-named person was hired previous to this certification on: _____

The above-named person is a new hire as of: _____

The above-named person's job title is: _____

Company Name: _____

Employer Name/Signature: _____

Notice of Section 3 Commitment

Submit with Bid, Post at Jobsite, Forward to Labor Unions

TO:

(NAME OF LABOR UNION, WORKERS REPRESENTATIVE, ETC.)

(ADDRESS)

NAME OF BUSINESS/CONTRACTOR

PROJECT NAME

PROJECT NUMBER

The undersigned currently holds a contract with _____ involving federal housing and community development assistance from the U.S. Department of Housing and Urban Development, or has a subcontract with a prime contractor holding such contract.

You are advised that under the provisions of the above contract or subcontract and in accordance with Section 3 of the Housing and Urban Development Act of 1968, the undersigned is obligated to the greatest extent feasible, to give opportunities for employment and training to lower income residence of the project area and to award contracts for work on the project to business concerns which are located in or are owned in substantial part by project area residence.

Regarding current employment opportunities for Section 3, the minimum number and job titles are:

Minimum Number	Job Classification

Regarding job referrals, request that consideration be given to the assignment of persons residing in the service area or neighborhood in which the project is located.

The anticipated date the work will begin is _____.

For additional information, please contact:

_____, _____ at (_____) _____.
CONTACT PERSON'S NAME TITLE PHONE

This notice is furnished to you pursuant to the provisions of the above contract or subcontract and Section 3 of the Housing and Urban Development Act of 1968. Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

PRINT NAME

SIGNATURE

DATE

TITLE

Section 3 Economic Opportunity Report

If a Section 3 Economic Opportunity Plan was submitted with the Bid, or upon request, Submit with Final Certified Payroll Report or on July 1st, whichever occurs first.

CONTRACTOR NAME AND ADDRESS	PROJECT NUMBER:	DOLLAR AMOUNT OF CONTRACT:
	CONTRACTOR CONTACT PERSON:	PHONE: (INCLUDE AREA CODE)
	DATE REPORT SUBMITTED:	DATE(S) COVERED:
	CONTRACTOR'S LICENSE NUMBER AND CLASS:	FEDERAL EIN:

Part I: Employment/Training of Section 3 Residents (Minimum Goal: 30% of New Hires)

Job Category	Number of New Hires	Number of New Hires that are Section 3 Residents	% of Aggregate Number of Staff Hours of New Hires that are Sec. 3 Residents	% of Total Staff Hours for Section 3 Employees and Trainees	Number of Section 3 Trainees
Professionals					
Technicians					
Office/Clerical					
Trade:					
Trade:					
Trade:					
Trade:					
Trade:					
TOTALS:			%	%	

Part II: Subcontracts Awarded (Minimum Subcontract Goal is 25% of the Prime Contract Amount)

Number of Subcontracts awarded:		Number of Section 3 Businesses Contracted:	
Name of Qualified Business Concern	Construction or Non-construction Contract	Amount	
		\$	
		\$	
		\$	
		\$	
Total Dollar Amount of Subcontracts awarded to Section 3 qualified Business Concerns:		\$	
Dollar Amount of All Subcontracts:		\$	
Percentage of the total dollar amount awarded to qualified Business Concerns:			%

Part III: Summary of the efforts that were made to generate economic opportunities

- ☐ Trained and/or Employed ____ low-income individuals equal to ____ (%) of the aggregate new hires. (Attach Resident Certifications)
- ☐ Awarded a Subcontract to ____ qualified Business Concerns equal to ____ (%) of the contract amount. (Attach Business Certifications)
- ☐ Attempted to recruit low-income individuals through:
- ☐ Advertised through local media, television, radio, newspaper (Attach copy of advertisement)
 - ☐ Signs prominently displayed at the project site
 - ☐ Contacts with community organizations
 - ☐ Contacted management to notify residents and posted or distributed flyers at public housing authority (Attach list)
- ☐ Participated in a HUD program or other program which promotes the training or employment of low-income individuals
- ☐ Participated in a HUD program or other program which promotes the award of contracts to Section 3 Qualified Business Concerns
- ☐ Contacted agencies administering HUD Youth-Build programs. (Attach list)
- ☐ Maintained a file of eligible qualified low-income Residents and qualified Business Concerns for future employment.

OTHER: (Describe and attach supporting documentation)

According to Title 18, Section 1001 of the U.S. Code, it is a felony for any person to knowingly and willingly make false or fraudulent statements to any department of the United States Government. I, the undersigned, hereby certify that all statements contained herein, are true and correct to the best of my knowledge and belief.

Under the penalty of perjury, I certify that the above information is true and correct.

SIGNATURE

DATE

TITLE

PHONE

EXHIBIT 16

Federal Wage Decision

(Next Page)

General Decision Number: CA180035 05/18/2018 CA35

Superseded General Decision Number: CA20170035

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Orange County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018
1	01/12/2018
2	01/19/2018
3	02/09/2018
4	03/02/2018
5	05/04/2018
6	05/18/2018

ASBE0005-002 07/03/2017

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 39.72	20.81
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain		

walls).....\$ 26.96 17.81

ASBE0005-004 07/03/2017

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....	\$ 19.26	11.27

* BRCA0004-010 05/01/2018

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 39.98	14.90

*The wage scale for prevailing wage projects performed in
Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine
Palms, Needles and 1-15 corridor (Barstow to the Nevada
State Line) will be Three Dollars (\$3.00) above the
standard San Bernardino/Riverside County hourly wage rate

BRCA0018-004 07/01/2017

	Rates	Fringes
MARBLE FINISHER.....	\$ 30.93	12.95
TILE FINISHER.....	\$ 25.98	11.23
TILE LAYER.....	\$ 37.76	16.37

BRCA0018-010 09/01/2017

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 29.75	12.91
TERRAZZO WORKER/SETTER.....	\$ 36.75	13.82

CARP0409-001 07/01/2016

	Rates	Fringes
CARPENTER (1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....	\$ 39.83	15.50
(2) Millwright.....	\$ 40.90	15.50
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman,		

Rockslinger, Shingler (Commercial).....	\$ 40.53	15.50
(4) Pneumatic Nailer, Power Stapler.....	\$ 40.09	15.50
(5) Sawfiler.....	\$ 39.83	15.50
(6) Scaffold Builder.....	\$ 31.60	15.50
(7) Table Power Saw Operator.....	\$ 40.93	15.50

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

CARP0409-005 07/01/2015

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER....	\$ 40.40	15.03
STOCKER/SCRAPPER.....	\$ 10.00	7.17

CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer.....	\$ 17.00	7.41

ELEC0011-002 01/01/2018

COMMUNICATIONS AND SYSTEMS WORK

	Rates	Fringes
Communications System		
Installer.....	\$ 33.64	3%+14.33
Technician.....	\$ 32.18	3%+27.32

SCOPE OF WORK:

Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarm (see last paragraph below) and low voltage master clock systems in commercial buildings. Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line

voltage work, and energy management systems. Does not cover work performed at China Lake Naval Ordnance Test Station. Fire alarm work shall be performed at the current inside wireman total cost package.

ELEC0441-001 02/26/2018

	Rates	Fringes
CABLE SPLICER.....	\$ 44.73	20.09
ELECTRICIAN.....	\$ 42.76	20.03

* ELEC0441-003 01/01/2018

COMMUNICATIONS & SYSTEMS WORK (excludes any work on Intelligent Transportation Systems or CCTV highway systems)

	Rates	Fringes
Communications System		
Installer.....	\$ 33.16	13.73
Technician.....	\$ 31.23	15.39

SCOPE OF WORK The work covered shall include the installation, testing, service and maintenance, of the following systems that utilize the transmission and/or transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for TV monitoring and surveillance, background foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms and low voltage master clock systems.

A. Communication systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems SCADA (Supervisory control/data acquisition PCM (Pulse code modulation) Inventory control systems Digital data systems Broadband & baseband and carriers Point of sale systems VSAT data systems Data communication systems RF and remote control systems Fiber optic data systems

B. Sound and Voice Transmission/Transference Systems Background-Foreground Music Intercom and Telephone Interconnect Systems Sound and Musical Entertainment Systems Nurse Call Systems Radio Page Systems School Intercom and Sound Systems Burglar Alarm Systems Low-Voltage Master Clock Systems Multi-Media/Multiplex Systems Telephone Systems RF Systems and Antennas and Wave Guide

C. *Fire Alarm Systems-installation, wire pulling and testing.

D. Television and Video Systems Television Monitoring and Surveillance Systems Video Security Systems Video

Entertainment Systems Video Educational Systems CATV and CCTV

E. Security Systems, Perimeter Security Systems, Vibration Sensor Systems
Sonar/Infrared Monitoring Equipment, Access Control Systems, Card Access Systems

*Fire Alarm Systems

1. Fire Alarms-In Raceways: Wire and cable pulling in raceways performed at the current electrician wage rate and fringe benefits.
2. Fire Alarms-Open Wire Systems: installed by the Technician.

ELEC0441-004 02/26/2018

	Rates	Fringes
ELECTRICIAN (TRANSPORTATION SYSTEMS, TRAFFIC SIGNALS & STREET LIGHTING)		
Cable Splicer/Fiber Optic		
Splicer.....	\$ 44.73	20.09
Electrician.....	\$ 42.76	20.03
Technician.....	\$ 31.76	16.75

SCOPE OF WORK: Electrical work on public streets, freeways, toll-ways, etc, above or below ground. All work necessary for the installation, renovation, repair or removal of Intelligent Transportation Systems, Video Surveillance Systems (CCTV), Street Lighting and and Traffic Signal work or systems whether underground or on bridges. Includes dusk to dawn lighting installations and ramps for access to or egress from freeways, toll-ways, etc.
Intelligent Transportation Systems shall include all systems and components to control, monitor, and communicate with pedestrian or vehicular traffic, included but not limited to: installation, modification, removal of all Fiber optic Video System, Fiber Optic Data Systems, Direct interconnect and Communications Systems, Microwave Data and Video Systems, Infrared and Sonic Detection Systems, Solar Power Systems, Highway Advisory Radio Systems, highway Weight and Motion Systems, etc.
Any and all work required to install and maintain any specialized or newly developed systems. All cutting, fitting and bandaging of ducts, raceways, and conduits. The cleaning, rodding and installation of "fish and pull wires". The excavation, setting, leveling and grouting of precast manholes, vaults, and pull boxes including ground rods or grounding systems, rock necessary for leveling and drainagae as well as pouring of a concrete envelope if needed.

JOURNEYMAN TRANSPORTATION ELECTRICIAN shall perform all tasks necessary toinstall the complete transportation system.
JOURNEYMAN TECHNICIAN duties shall consist of: Distribution of material at job site, manual excavation and backfill, installation of system conduits and raceways for electrical, telephone, cable television and communication

systems. Pulling, terminating and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/data.

ELEC1245-001 06/01/2017

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..\$ 55.49		16.62
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....\$ 44.32		3%+17.65
(3) Groundman.....\$ 33.89		3%+17.65
(4) Powderman.....\$ 49.55		3%+17.65

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day,
Independence Day, Labor Day, Veterans Day, Thanksgiving Day
and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2018

	Rates	Fringes
ELEVATOR MECHANIC.....\$ 53.85		32.645

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/01/2017

	Rates	Fringes
OPERATOR: Power Equipment (All Other Work)		
GROUP 1.....\$ 44.00		24.25
GROUP 2.....\$ 44.78		24.25
GROUP 3.....\$ 45.07		24.25
GROUP 4.....\$ 46.56		24.25
GROUP 5.....\$ 47.66		24.25
GROUP 6.....\$ 46.78		24.25
GROUP 8.....\$ 46.89		24.25
GROUP 9.....\$ 47.99		24.25
GROUP 10.....\$ 48.01		24.25
GROUP 11.....\$ 48.11		24.25
GROUP 12.....\$ 47.18		24.25

GROUP 13.....	\$ 47.28	24.25
GROUP 14.....	\$ 47.31	24.25
GROUP 15.....	\$ 47.39	24.25
GROUP 16.....	\$ 47.51	24.25
GROUP 17.....	\$ 47.68	24.25
GROUP 18.....	\$ 47.78	24.25
GROUP 19.....	\$ 47.89	24.25
GROUP 20.....	\$ 48.01	24.25
GROUP 21.....	\$ 48.18	24.25
GROUP 22.....	\$ 48.28	24.25
GROUP 23.....	\$ 48.39	24.25
GROUP 24.....	\$ 48.51	24.25
GROUP 25.....	\$ 48.68	24.25

OPERATOR: Power Equipment
(Cranes, Piledriving &
Hoisting)

GROUP 1.....	\$ 45.35	24.25
GROUP 2.....	\$ 46.13	24.25
GROUP 3.....	\$ 46.42	24.25
GROUP 4.....	\$ 46.56	24.25
GROUP 5.....	\$ 46.78	24.25
GROUP 6.....	\$ 46.89	24.25
GROUP 7.....	\$ 47.01	24.25
GROUP 8.....	\$ 47.18	24.25
GROUP 9.....	\$ 47.35	24.25
GROUP 10.....	\$ 48.35	24.25
GROUP 11.....	\$ 49.35	24.25
GROUP 12.....	\$ 50.35	24.25
GROUP 13.....	\$ 51.35	24.25

OPERATOR: Power Equipment
(Tunnel Work)

GROUP 1.....	\$ 41.80	23.35
GROUP 2.....	\$ 42.58	23.35
GROUP 3.....	\$ 42.87	23.35
GROUP 4.....	\$ 43.01	23.35
GROUP 5.....	\$ 43.23	23.35
GROUP 6.....	\$ 43.34	23.35
GROUP 7.....	\$ 43.46	23.35

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons;

Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms);

Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9

cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar

types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S,

R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SBM to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34.T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the

Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2015

	Rates	Fringes
OPERATOR: Power Equipment		
(DREDGING)		
(1) Leverman.....	\$ 49.50	23.60
(2) Dredge dozer.....	\$ 43.53	23.60
(3) Deckmate.....	\$ 43.42	23.60
(4) Winch operator (stern winch on dredge).....	\$ 42.87	23.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 42.33	23.60
(6) Barge Mate.....	\$ 42.94	23.60

IRON0377-002 01/01/2017

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 29.58	21.59
Ornamental, Reinforcing and Structural.....	\$ 36.00	30.15

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval
Reserve-Niland,

Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-005 01/01/2018

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 33.19	17.78

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/02/2017

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 41.08	17.39
GROUP 2.....	\$ 40.13	17.39
GROUP 3.....	\$ 36.59	17.39

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LABO0652-001 07/03/2017

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 39.04	18.24
GROUP 2.....	\$ 39.36	18.24
GROUP 3.....	\$ 39.82	18.24
GROUP 4.....	\$ 40.51	18.24
LABORER		
GROUP 1.....	\$ 33.19	18.24
GROUP 2.....	\$ 33.74	18.24
GROUP 3.....	\$ 34.29	18.24
GROUP 4.....	\$ 35.84	18.24
GROUP 5.....	\$ 36.19	18.24

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellow

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic

tools (except driller); Bull gang mucker, track person;
Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0652-003 07/01/2017

	Rates	Fringes
Brick Tender.....	\$ 31.36	17.82

LABO1184-001 07/01/2017

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer...	\$ 34.65	13.20
(2) Vehicle Operator/Hauler.	\$ 34.82	13.20
(3) Horizontal Directional Drill Operator.....	\$ 36.67	13.20
(4) Electronic Tracking Locator.....	\$ 38.67	13.20
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1.....	\$ 35.86	16.21
GROUP 2.....	\$ 37.16	16.21
GROUP 3.....	\$ 39.17	16.21
GROUP 4.....	\$ 40.91	16.21

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic

delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

LAB01414-001 08/02/2017

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER....	\$ 32.50	18.29
PLASTER TENDER.....	\$ 35.05	18.29

Work on a swing stage scaffold: \$1.00 per hour additional.

PAIN0036-001 01/01/2018

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County).....	\$ 27.59	14.14
(2) All Other Work.....	\$ 31.12	14.14

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-008 10/01/2017

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 38.58	18.57

PAIN0036-015 06/01/2017

	Rates	Fringes
GLAZIER.....	\$ 40.95	24.40

FOOTNOTE: Additional \$1.25 per hour for work in a condor, from the third (3rd) floor and up Additional \$1.25 per hour for work on the outside of the building from a swing stage or any suspended contrivance, from the ground up

PAIN1247-002 01/01/2018

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 32.35	14.56

PLAS0200-009 08/02/2017

	Rates	Fringes
PLASTERER.....	\$ 41.26	14.46

PLAS0500-002 07/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.30	23.33

PLUM0016-001 07/01/2017

	Rates	Fringes
PLUMBER/PIPEFITTER		
Plumber and Pipefitter		
All other work except		
work on new additions and		
remodeling of bars,		
restaurant, stores and		
commercial buildings not		
to exceed 5,000 sq. ft.		
of floor space and work		
on strip malls, light		
commercial, tenant		
improvement and remodel		
work.....	\$ 49.28	21.61
Work ONLY on new additions		
and remodeling of bars,		
restaurant, stores and		
commercial buildings not		
to exceed 5,000 sq. ft. of		
floor space.....	\$ 47.76	20.63
Work ONLY on strip malls,		
light commercial, tenant		
improvement and remodel		
work.....	\$ 36.91	18.96

PLUM0345-001 07/01/2017

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter.	\$ 32.30	21.00
Sewer & Storm Drain Work....	\$ 33.24	17.13

ROOF0036-002 08/01/2017

	Rates	Fringes
ROOFER.....	\$ 37.07	16.17

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour "pitch premium" pay.

SFCA0669-008 04/01/2017

DOES NOT INCLUDE SAN CLEMENTE ISLAND, THE CITY OF SANTA ANA, AND THAT PART OF ORANGE COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER.....	\$ 39.07	15.84

SFCA0709-003 07/01/2015

SAN CLEMENTE ISLAND, THE CITY OF SANTA ANA, AND THAT PART OF ORANGE COUNTY WITHIN 25 MILES BEYOND THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER (Fire).....	\$ 42.93	24.04

SHEE0105-003 01/01/2018

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines)and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
(1) Commercial - New Construction and Remodel work.....	\$ 42.78	27.96
(2) Industrial work including air pollution control systems, noise abatement, hand rails, guard rails, excluding aritechatural sheet metal work, excluding A-C, heating, ventilating systems for human comfort...	\$ 42.78	27.96

TEAM0011-002 07/01/2017

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 29.59	27.74
GROUP 2.....	\$ 29.74	27.74

GROUP 3.....	\$ 29.87	27.74
GROUP 4.....	\$ 30.06	27.74
GROUP 5.....	\$ 30.09	27.74
GROUP 6.....	\$ 30.12	27.74
GROUP 7.....	\$ 30.37	27.74
GROUP 8.....	\$ 30.62	27.74
GROUP 9.....	\$ 30.82	27.74
GROUP 10.....	\$ 31.12	27.74
GROUP 11.....	\$ 31.62	27.74
GROUP 12.....	\$ 32.05	27.74

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB,
El Centro Naval Facility, Fort Irwin, Marine Corps
Logistics Base at Nebo & Yermo, Mountain Warfare Training
Center, Bridgeport, Point Arguello, Point Conception,
Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2
axles; Traffic control pilot car excluding moving heavy
equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3
axles; Boot person; Cement mason distribution truck; Fuel
truck driver; Water truck - 2 axle; Dump truck, less than
16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete
truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire
person (\$0.50 additional for tire person); Pipeline and
utility working truck driver, including winch truck and
plastic fusion, limited to pipeline and utility work;
Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck,
6-1/2 yds. water level and over; Vehicle or combination of
vehicles - 4 or more axles; Oil spreader truck; Dump truck,
16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver;
Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck
repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles
or over

GROUP 10: Dump truck - 50 yds. or more water level; Water
pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine
with attachments; Winch truck driver - \$1.25 additional
when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage
determination. The classifications are listed in alphabetical
order of "identifiers" that indicate whether the particular
rate is a union rate (current union negotiated rate for local),
a survey rate (weighted average rate) or a union average rate
(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed
in dotted lines beginning with characters other than "SU" or
"UAVG" denotes that the union classification and rate were
prevailing for that classification in the survey. Example:
PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of
the union which prevailed in the survey for this
classification, which in this example would be Plumbers. 0198
indicates the local union number or district council number
where applicable, i.e., Plumbers Local 0198. The next number,

005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

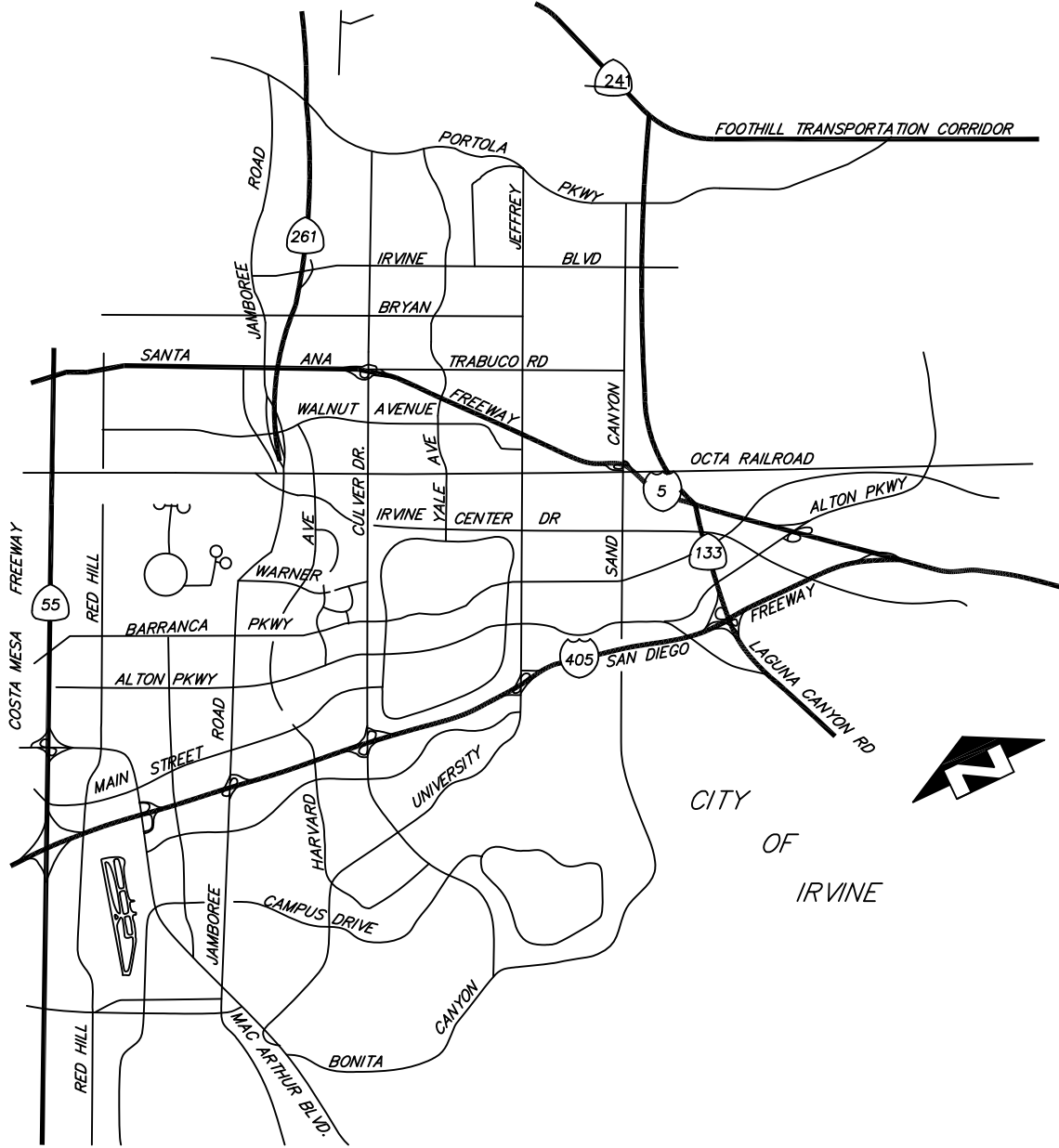
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END OF GENERAL DECISION

THE CITY OF IRVINE



BUILDING PLANS



VICINITY MAP

LOCATION MAP

ABBREVIATIONS

AB	ANCHOR BOLT	FCC	FACE OF CONCRETE	PSF	POUNDS PER SQUARE FOOT
AC	ASPHALTIC CONCRETE	FOF	FACE OF FINISH	PSI	POUNDS PER SQUARE INCH
ACoust	ACOUSTICAL	FOM	FACE OF MASONRY	PVC	POLYVINYL CHLORIDE
ADJ	ADJUSTABLE	FOS	FACE OF STUDS	R	RISER
AL	ALUMINUM	FTG	FOOTING	RAD	RADIUS
ANOD	ANODIZED	GA	GAUGE	RD	ROOF DRAIN
AP	ACCESS PANEL	GI	GALVANIZED IRON	REF	REFERENCE
ARCH	ARCHITECT (URL)	GL	GLASS GLAZING	REFL	REFLECT(ED), (WE), (OR)
BD	BOARD	GLB	GLUE LAMINATED BEAM	REIN	REINFORCE(D), ING
BEL	BELOW	GYP	GYPSPUM	REQ	REQUIRE(D)
BET	BETWEEN	H	HIGH (HEIGHT)	REV	REVISION(S) REVISED
BLDG	BUILDING	HB	HOSE BIBS	RH	RIGHT HAND
BLK(G)	BLOCK(ING)	HC	HOLLOW CORE	RM	ROOM
BM	BEAM	HDR	HEADER	RO	ROUGH OPENING
B	BOTTOM	HOW	HARDWARE	ROW	RIQH OF WAY
BRO	BEARING	HM	HOLW METAL	S	SOUTH
BS	BOTH SIDES	HOR	HORIZONTAL	SC	SOLID CORE
BUL	BULLETIN	HT	HEIGHT	SEC	SECTION
BUR	BUILT UP ROOFING	HT	HEIGHT	SF	SQUARE FOOT (FEET)
CB	CATCH BASIN	HVAC	HEATING/ VENTILATION AIR CONDITIONING	SHT	SHEET
CEM	CEMENT	ID	INSIDE DIAMETER	SM	SIMILAR
CI	CAST IRON	INCL	INCLUDE(D) (ING)	SPEC	SPECIFICATION(S)
CJ	CEILING JOIST	INT	INTERIOR	SQ	SQUARE
CLG	CEILING	L	LONG (LENGTH)	TOP	TOP OF PARAPET
CLR	CLEAR(ANCE)	LAM	LAMINATE(D)	TOS	TOP OF SLAB
COL	COLUMN	LAV	LAVATORY	TS	TOP OF STEEL
CONC	CONCRETE	LBL	LABEL	TW	TOP OF WALL
CONST	CONSTRUCTION	LH	LEFT HAND	TYP	TYPICAL
CONT	CONTINUOUS OR CONTRINE	LT	LIGHT	UN	UNLESS OTHERWISE NOTED
CONTR	CONTRACT(OR)	LW	LIGHTWEIGHT	UR	URINAL
D	DEEP (DEPTH)	MAS	MASONRY	VCT	VINYL COMPOSITION TILE
DF	DRINKING FOUNTAIN	MAX	MAXIMUM	VERT	VERTICAL
DAG	DIAGONAL	MB	MACHINE BOLT	VG	VERTICAL GRAIN
DAM	DIAMETER	MECH	MECHANIC(AL)	VIN	VINYL
DM	DIMENSION	MED	MEDIUM	W	WEST, WIDTH, WIDE
DN	DOWN	MET	METAL	WC	WATER CLOSET
DR	DOOR	MFR	MANUFACTUR(ER)	WO	WOOD
DW	DOWNSPOUT	MIN	MINIMUM	WP	WATERPROOFING
DTL	DETAIL	MISC	MISCELLANEOUS	WR	WATER REPELLENT
DWG	DRAWING	MO	MASONRY OPENING	WNM	WELDED WIRE MESH
E	EAST	MTL	MATERIAL(S)	∠	ANGLE
EA	EACH	NAT	NATURAL	Ø	AT
EL	ELEVATION	(N)	NEW	C	CENTERLING
ELEC	ELECTRIC(AL)	NIC	NOT IN CONTRACT	[CHANNEL
EMER	EMERGENCY	NOM	NOMINAL	O/	OVER
EQ	EQUAL	N	NORTH	D	PENNY
ENC	ELECTRIC WATER COOLER	NTS	NOT TO SCALE	HL	PLATE
EX	EXHAUST	OC	ON CENTER(S)	O	ROUND
(E)	EXISTING	OD	OUTSIDE DIAMETER	W/	WITH
EXP	EXPOSED	OPNG	OPENING	W/O	WITHOUT
EXT	EXTERIOR	OPP	OPPOSITE		
FD	FLOOR DRAIN	PH	PANIC HARDWARE		
FEE(C)	FIRE EXTINGUISHER (CABINET)	PLAS	PLASTER, PLASTIC		
FTE	FINISH FLOOR ELEVATION	PLYWD	PLYWOOD		
FHC	FIRE HOSE CABINET	SYM	SYMMETRY(CAL)		
FN	FINISH(ED)	T	TREAD, TOP		
FJ	FLOOR JOIST	TEL	TELEPHONE		
FLR	FLOOR(ING)	(T)	TEMPERED		
		T&G	TONGUE AND GROOVE		
		THK	THICKNESS		

SYMBOLS

	Elevation Number		CONSTRUCTION NOTE
	Section Number		WINDOW MARK
	Sheet Number		DOOR MARK
	Sheet Number		EMERGENCY EXIT
	Sheet Number		WORKING POINT
	Detail Number		MATCHLINE
	Sheet Number		ITEM NOT IN CONTRACT (NIC) Owner furnished, Contractor installed

PROJECT DIRECTORY

OWNER:
CITY OF IRVINE
1 CIVIC CENTER DRIVE
IRVINE, CA
P: 949 724.7545
ATT: REZA JAFARI

ARCHITECT:
RM ARCHITECTURE
780 ROOSEVELT
IRVINE, CA 92620
P: 949 333.6030
F: 949 333.6100
ATT: RUBIO MEDINA, ARCHITECT

PLUMBING ENGINEER:
IMEG
901 VIA PIEMONTE, SUITE 400
ONTARIO, CA 91764
P: 909 477.6915
F: 909 477.6916
ATT: RYAN SHAW

ELECTRICAL ENGINEER:
IMEG
901 VIA PIEMONTE, SUITE 400
ONTARIO, CA 91764
P: 909 477.6915
F: 909 477.6916
ATT: JOHN SIMMONS

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T1.2 CITY OF IRVINE STANDARD GENERAL NOTES
T1.3 MANDATORY GREEN BUILDING CODE CHECKLIST
T1.4 MANDATORY GREEN BUILDING CODE CHECKLIST
T1.5 MANDATORY GREEN BUILDING CODE CHECKLIST

ARCHITECTURAL
A1.0 SITE PLAN
A1.1 ENLARGED OUTDOOR AMPHITHEATER
A2.0 OVERALL FLOOR AND DEMOLITION PLAN
A2.1 ENLARGED COMMUNITY CENTER AND NATURE CENTER
A2.2 ENLARGED STAGE DEMOLITION AND REVISED PLAN
A3.0 ROOM AND DOOR SCHEDULE, ACCESSIBLE DETAILS
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A4.1 INTERIOR ELEVATIONS AND DETAILS

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ELECTRICAL
E0.1 GENERAL NOTES, LEGEND AND DRAWING LIST
E0.2 SINGLE LINE DIAGRAM
E1.1 SITE PLAN
E2.1 REMODEL FLOOR PLAN

RM ARCHITECTURE
CONSTRUCTION MANAGEMENT
RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92620
P: 949 333.6030
F: 949 333.6100

Rubio Medina, Architect
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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER
1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
TITLE SHEET

DRAWN BY: R. MEDINA
DATE: 05.11.18
SCALE: AS NOTED
PROJECT NO: 1705
SHEET:

T1.0

PROJECT INFORMATION REQUIREMENTS

PROJECT LOCATION: 1 SUNNYHILL, IRVINE, CA; MAJOR CROSS STREETS: TURTLE ROCK DRIVE AND SUNNYHILL

PROJECT DESCRIPTION

ACCESSIBILITY UPGRADES TO INCLUDE REMODEL OF RESTROOMS, EXTERIOR CHAIR LIFT, DOOR HARDWARE, AND INTERIOR CHAIR LIFT

SPECIAL CONDITIONS OF LAND USE APPROVAL
SPECIAL CONDITIONS RELATING TO THIS PROJECT ARE ESTABLISHED IN .

SEE SHEET UNDER THE HEADING LAND USE CONDITIONS OF APPROVAL FOR COMPLETE CONDITIONS OF APPROVAL.

USE(S) OCCUPANCY (IES) AND FLOOR AREAS(S)

<REPEAT THIS SECTION ENTIRELY FOR EACH BUILDING TYPE COVERED BY THE PLANS>
<INSERT USE (CONFORMING TO APPROVED PLANNING TERMINOLOGY) AND OCCUPANCY>
<INSERT FLOOR AREA>

<REPEAT THIS SECTION ENTIRELY FOR EACH BUILDING TYPE COVERED BY THE PLANS>
<INSERT USE (CONFORMING TO APPROVED PLANNING TERMINOLOGY) AND OCCUPANCY>
<INSERT FLOOR AREA>

<REPEAT THIS SECTION ENTIRELY FOR EACH BUILDING TYPE COVERED BY THE PLANS>
<INSERT USE (CONFORMING TO APPROVED PLANNING TERMINOLOGY) AND OCCUPANCY>
<INSERT FLOOR AREA>

NUMBER OF STORIES 1

MEZZANINES NONE

TYPE OF CONSTRUCTION TYPE VB

FIRE PARTITION WALLS NO

FIRE BARRIER WALLS YES, BETWEEN B/A.3 OCCUPANCY AT COMMUNITY CENTER (EXISTING)

FIRE WALL NO

SEE SHEET(S) N/A FOR WALL ASSEMBLY LEGEND, PROVIDING UNIQUE SYMBOLS FOR EACH RATED WALL TYPE/RATING AND CALL-OUTS TO CONSTRUCTION DETAILS DEMONSTRATING COMPLIANCE WITH ASSEMBLY LISTINGS.

HORIZONTAL ASSEMBLIES NO

SPRINKLERS YES

AN NFPA 13 AUTOMATIC SPRINKLER SYSTEM
SHALL BE PROVIDED UNDER SEPARATE APPROVAL THROUGH THE ORANGE COUNTY FIRE AUTHORITY. SPRINKLERS ARE PROVIDED

TO COMPLY WITH THE CITY OF IRVINE MUNICIPAL CODE SECTION 5-9-401 FOR BUILDING HAVING A GROSS AREA EXCEEDING 5,000 SQUARE FEET.

ALLOW HEIGHT AND AREA ANALYSIS PER CBC SECTION 503:
SEE TABLE THIS PAGE

PARKING SUMMARY
REQUIRED PARKING

SPACES NO ADDITIONAL SQUARE FOOTAGE ADDED

TOTAL PARKING PROVIDED SPACES NO CHANGE TO PARKING

ACCESSIBLE PARKING

TOTAL REQUIRED	SPACES	NO CHANGE
TOTAL PROVIDED	SPACES	NO CHANGE
TOTAL ACCESSIBLE REQUIRED	SPACES	NO CHANGE
TOTAL ACCESSIBLE PROVIDED	SPACES	NO CHANGE

APPLICABLE STATE CODES (WITH CITY OF IRVINE AMENDMENTS)

CALIFORNIA BUILDING CODE	2016
CALIFORNIA RESIDENTIAL CODE	N/A
CALIFORNIA GREEN BUILDING STANDARDS CODE	2016
CALIFORNIA MECHANICAL CODE	2016
CALIFORNIA ELECTRICAL CODE	2016
CALIFORNIA PLUMBING CODE	2016
CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS	2016

WATER CONSERVING PLUMBING FIXTURE VERIFICATION/RETROFIT:

BUILDINGS FOR WHICH AN INITIAL FINAL INSPECTION WAS RECEIVED ON OR BEFORE JANUARY 1, 1994 SHALL COMPLY WITH THE CITY OF IRVINE'S INFORMATION BULLETIN # 321. WAS THE INITIAL FINAL INSPECTION ON THE PROPERTY UNDERGOING THE PROPOSED TENANT IMPROVEMENT RECEIVED PRIOR TO JANUARY 1, 1994: YES

CALIFORNIA GREEN BUILDING STANDARDS CODE

PROVISIONS OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE APPLY TO ALL NEW LOW-RISE RESIDENTIAL BUILDINGS (THREE STORIES AND LESS INCLUDING HOTELS AND MOTELS) AND ALL NON-RESIDENTIAL TENANT IMPROVEMENT WITH VALUATION EQUAL OR GREATER THAN \$200,000 AND ADDITIONS EQUAL OR GREATER THAN 1,000 SQUARE FEET.

SEE SHEET T.3, T.4, T.5 FOR COMPLETED CITY OF IRVINE GREEN BUILDING STANDARDS NOTES.

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

PROVISIONS OF THE CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARD APPLY TO THIS PROJECT SEE SHEET N/A FOR COMPLETE COMPLIANCE DOCUMENTATION.

SPECIAL INSPECTION AND STRUCTURAL OBSERVATION

THIS PROJECT IS SUBJECT TO BOTH SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATION PER CALIFORNIA BUILDING CODE (CBC) CHAPTER 17 AND SHALL FOLLOW THE REQUIREMENTS AS DEFINED IN CITY OF IRVINE INFORMATION BULLETINS NO. 278 AND 251.

SEE SHEET N/A FOR COMPLETED PROJECT SPECIFIC CITY OF IRVINE SPECIAL INSPECTION PROGRAM FORM.

SEE SHEET N/A FOR COMPLETED PROJECT SPECIFIC CITY OF IRVINE SPECIAL OBSERVATION PROGRAM FORM.

CITY OF IRVINE MUNICIPAL CODE

[NOTE: COMPLETE IMC TEXT IS AVAILABLE ON THE INTERNET AT WWW.MUNICODE.COM]
THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH ALL APPLICABLE IRVINE MUNICIPAL CODE PROVISIONS INCLUDING BUT NOT LIMITED TO:

CONSTRUCTION WORK HOURS [IMC SECT. 6-8-205]
MON-FRI 7 AM TO 7 PM
SAT 9 AM TO 6 PM
NO WORK ON SUNDAYS OR FEDERAL HOLIDAYS

SECURITY DESIGN STANDARDS [IMC SECT. 5-9-520 AND 5-9-528]
SEE SHEET N/A FOR APPLICABLE COMPLETED SECURITY CODE PROVISIONS.

ROOFING [IMC 5-9-401 I. & 5-9-402 E.]

ROOF COVERING CLASSIFICATION SHALL MEET MINIMUM CLASS A.

ATTIC AND UNDERFLOOR VENT COVERS [IMC 5-9-401 H. & 5-9-402 D.]

ROOF AND UNDERFLOOR VENT OPENINGS SHALL BE COVERED WITH NON-COMBUSTIBLE, CORROSION RESISTANT, METAL WIRE MESH OR OTHER MATERIALS HAVING OPENINGS OF 1/16 INCH MINIMUM TO 1/8 INCH MAXIMUM. (CBC 706A.2) SEE DETAIL

N/A

OFF-SITE FABRICATION

ALL OFF-SITE FABRICATION OF STRUCTURAL STEEL COMPONENTS INCLUDING STEEL STAIRS AND PRE-CAST CONCRETE SHALL BE DONE IN AN APPROVED FABRICATOR SHOP AS REQUIRED BY CITY OF IRVINE INFORMATION BULLETIN NO. 311. SEE BULLETIN FOR DETAILS AND REQUIRED DOCUMENTATION REQUIRED AT THE RECEIPT OF ANY SHIPMENT OF OFF-SITE FABRICATED ITEMS.

PRE-CONSTRUCTION MEETING REQUIREMENT

ALL CONSTRUCTION PROJECTS INVOLVING ADDITIONS TO NON-RESIDENTIAL STRUCTURES SHALL NOT COMMENCE UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD. THESE MEETINGS, WHILE NOT REQUIRED BY CITY CODE FOR TENANT IMPROVEMENTS NOT ADDING AREA, ARE BENEFICIAL FOR MAJOR TENANT IMPROVEMENTS OR ANY RESTAURANT INSTALLATIONS. TO SCHEDULE A PRE-CONSTRUCTION MEETING CONTACT ROGER CARTON, NON-RESIDENTIAL INSPECTIONS SUPERVISOR AT (949)724-6331.

DEFERRED SUBMITTALS

THIS PROJECT HAS BEEN PERMITTED WITHOUT REVIEW AND/OR APPROVAL OF THE FOLLOWING DEFERRED SUBMITTALS. PLANS APPROVED BY THE CITY SHALL BE OBTAINED FOR EACH DEFERRED ITEM LISTED BELOW PRIOR TO COMMENCING ANY WORK WITHIN THE SCOPE OF SUCH DEFERRAL. DEFERRALS MUST BE REVIEWED AND ACCEPTED BY THE ARCHITECT OR ENGINEER OF RECORD PRIOR TO SUBMITTING FOR REVIEW WITH THE CITY.

N/A

ADDITIONS AND ALTERATIONS:

PRIOR TO USE, OCCUPANCY OR FINAL INSPECTION, EXISTING OR RETROFITTED ADDRESSING MEETING THE HEIGHT, CONTRAST AND FONT REQUIREMENTS OF SECTION 5-9-517 ITEM L OF THE CITY OF IRVINE MUNICIPAL CODE SHALL BE VERIFIED BY THE CITY INSPECTOR.

CONTRACTOR SHALL RESTORE ALL ORIGINAL AND REQUIRED FIRE PROTECTION ON STRUCTURAL ELEMENTS AND RATED ASSEMBLIES.

PRIOR TO FINAL INSPECTION, THE OPENING FORCE FOR DOORS SERVING THE DESIGNATED ACCESSIBLE PATH OF TRAVEL SHALL BE VERIFIED TO COMPLY WITH CBC 11B-404.2.9. POWERED EXTERIOR DOORS, PER EXCEPTION 2, SERVING A SPACE WITH AN OCCUPANCY OF 150 OR MORE ARE REQUIRED TO BE EQUIPPED WITH BACK-UP POWER.

BUILDING CLASSIFICATION COMMUNITY CENTER:
OCCUPANCY GROUP: B,A.3
OCCUPANCY SEPARATION: BETWEEN B AND A.3
NUMBER OF STORIES: 1 STORY AT TYPE VB CONSTRUCTION
EXISTING STRUCTURE TYPE: VA (SPRINKLERED)

OCCUPIED FLOOR AREA CALCULATIONS:
TOTAL B SF: 4,578
TOTAL A.3 SF:6,398
TOTAL SF: 10,976

ALLOWABLE FLOOR AREA CALCULATIONS:
B OCCUPANCY:
PER TABLE 506.2: 36,000SF
TOTAL ALLOWABLE B: 36,000SF
RATIO OF ACTUAL TO ALLOWABLE: 4,578/36,000=.13

A.3 OCCUPANCY:
PER TABLE 506.2: 24,000SF
TOTAL ALLOWABLE A.3: 24,000SF
RATIO OF ACTUAL TO ALLOWABLE: 6,398/24,000=.27

TOTAL MIXED USE RATION: .13+.27=.4

BUILDING CLASSIFICATION NATURE CENTER:
OCCUPANCY GROUP: B,
OCCUPANCY SEPARATION: N/A
NUMBER OF STORIES: 1 STORY AT TYPE VB CONSTRUCTION
EXISTING STRUCTURE TYPE: VA (SPRINKLERED)

OCCUPIED FLOOR AREA CALCULATIONS:
TOTAL B SF: 1,894

ALLOWABLE FLOOR AREA CALCULATIONS:
B OCCUPANCY:
PER TABLE 506.2: 36,000SF
TOTAL ALLOWABLE B: 36,000SF
RATIO OF ACTUAL TO ALLOWABLE: 4,578/36,000=.13

RM ARCHITECTURE
CONSTRUCTION MANAGEMENT
RUBIO MEDINA ARCHITECT
780 ROCKEY
IRVINE CA 92620
P: 949 333 6030
F: 949 333 6100

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER
1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
CITY OF IRVINE STANDARD GENERAL NOTES

DRAWN BY: R. MEDINA

DATE: 05.11.18

SCALE: AS NOTED

PROJECT NO: 1705

SHEET:

T1.1

FIRE DEPARTMENT NOTES:

1. FOR ASSISTANCE WITH FIRE-RELATED PLAN REVIEW ISSUES OR TECHNICAL QUESTIONS, PLEASE CALL (714) 573-6108. FOR FIRE-RELATED INSPECTION QUESTIONS OR ISSUES, PLEASE CONTACT YOUR OCFA INSPECTOR DIRECTLY OR OCFA INSPECTION SCHEDULING AT (714) 573-6150 FOR ASSISTANCE.
2. THE PROJECT SHALL COMPLY WITH THE CURRENTLY ADOPTED CALIFORNIA BUILDING CODE, CALIFORNIA FIRE CODE, AND OTHER CODES, STANDARDS, REGULATIONS AND REQUIREMENTS AS ENFORCED BY THE ORANGE COUNTY FIRE AUTHORITY. APPROVAL OF THESE PLANS SHALL NOT PERMIT THE VIOLATION OF ANY CODE OR LAW.
3. FOR PROJECTS INVOLVING NEW STRUCTURES, ADDITIONS TO EXISTING STRUCTURES, INSTALLATION OF GATES/WALLS/FENCES, OR ALTERATION OF VEHICULAR ACCESS, A FIRE MASTER PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE OCFA PRIOR TO SUBMITTAL OF ARCHITECTURAL PLANS. AN APPROVED FIRE MASTER PLAN SHALL BE SUBMITTED WITH THE ARCHITECTURAL PLANS.
4. ALL WEATHER FIRE ACCESS ROADS SHALL BE APPROVED BY THE OCFA AND BE IN PLACE BEFORE ANY COMBUSTIBLE MATERIALS ARE PLACED ON THE SITE. ACCESS ROADS SHALL BE MAINTAINED CLEAR OF OBSTRUCTIONS DURING AND AFTER CONSTRUCTION.
5. ADDRESS NUMBERS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS, BE A MINIMUM SIX INCHES HIGH, CONTRAST WITH THEIR BACKGROUND, AND BE PLAINLY VISIBLE FROM THE ROADWAY THE BUILDING IS ADDRESSED ON OR AS OTHERWISE ALLOWED BY OCFA GUIDELINE B-09.
6. BUILDINGS UNDER CONSTRUCTION OR DEMOLITION SHALL CONFORM TO CFC CHAPTER 33. NO SMOKING OR COOKING IS ALLOWED IN STRUCTURES WHERE COMBUSTIBLE MATERIALS ARE EXPOSED OR WITHIN 25' OF COMBUSTIBLE MATERIALS STORAGE AREAS. CUTTING, WELDING, OR OTHER HOT WORK SHALL BE IN CONFORMANCE WITH CFC CHAPTER 35.
7. LOCATIONS AND CLASSIFICATIONS OF EXTINGUISHERS SHALL BE IN ACCORDANCE WITH THE CFC AND CCR TITLE 19. AT LEAST ONE EXTINGUISHER SHALL BE PROVIDED DURING CONSTRUCTION ON EACH FLOOR AT EACH STAIRWAY, IN EACH STORAGE AND CONSTRUCTION SHED, IN LOCATIONS WHERE FLAMMABLE OR COMBUSTIBLE LIQUIDS ARE STORED OR USED, OR WHERE SIMILAR HAZARDS ARE PRESENT. BEFORE FINAL OCCUPANCY, AT LEAST ONE 2A:10B:C EXTINGUISHER SHALL BE PROVIDED SO THAT NO POINT IS MORE THAN 75' TRAVEL DISTANCE FROM THE EXTINGUISHER. EXTINGUISHERS SHALL BE LOCATED ALONG THE PATH OF EGRESS TRAVEL AND IN A READILY VISIBLE AND ACCESSIBLE LOCATION, WITH THE BOTTOM OF THE EXTINGUISHER AT LEAST 4" ABOVE THE FLOOR. ADDITIONAL EXTINGUISHERS MAY BE REQUIRED BY THE INSPECTOR AND FINAL PLACEMENT IS SUBJECT TO APPROVAL.
8. WALL, FLOOR AND CEILING FINISHES AND DECORATIVE MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN CBC/CFC CHAPTER 8. DECORATIVE MATERIALS SHALL BE PROPERLY TREATED BY A PRODUCT OR PROCESS APPROVED BY THE STATE FIRE MARSHAL. SUCH ITEMS SHALL BE APPROVED AND INSPECTED PRIOR TO INSTALLATION.
9. KNOX BOXES/KEY CABINETS SHALL BE PROVIDED FOR ALL POOL ENCLOSURES, GATES IN THE PATH OF FIREFIGHTER TRAVEL TO STRUCTURES, SECURED PARKING LEVELS, DOORS GIVING ACCESS TO ALARM PANELS AND/OR ANNUNCIATORS, AND ANY OTHER STRUCTURES OR AREAS WHERE IMMEDIATE ACCESS IS REQUIRED OR IS UNDULY DIFFICULT.
10. DUMPSTERS AND TRASH CONTAINERS EXCEEDING 1.5 CUBIC YARDS SHALL NOT BE STORED IN BUILDINGS OR PLACED WITHIN 5 FEET OF COMBUSTIBLE WALLS, OPENINGS OR COMBUSTIBLE ROOF EAVE LINES UNLESS PROTECTED BY AN APPROVED SPRINKLER SYSTEM OR LOCATED IN A TYPE I OR IIA STRUCTURE SEPARATED BY 10 FEET FROM OTHER STRUCTURES. CONTAINERS LARGER THAN 1 CUBIC YARD SHALL BE OF NON- OR LIMITED-COMBUSTIBLE MATERIALS OR SIMILARLY PROTECTED OR SEPARATED. CFC 304.3
11. EXITS, EXIT SIGNS, FIRE ALARM PANELS, HOSE CABINETS, FIRE EXTINGUISHER LOCATIONS, AND STANDPIPE CONNECTIONS SHALL NOT BE CONCEALED BY CURTAINS, MIRRORS, OR OTHER DECORATIVE MATERIAL. THE EGRESS PATH SHALL REMAIN FREE AND CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES. NO STORAGE IS PERMITTED IN AISLES.
12. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. DOORS SHALL NOT BE PROVIDED WITH THUMB-TURN LOCKS OR DEADBOLTS THAT DO NOT UNLATCH IN TANDEM WITH THE NORMAL OPERATING LEVER. RATED DOORS SHALL BE SELF-CLOSING AND LATCHING; SUCH DOORS SHALL NOT BE EQUIPPED WITH DOOR STOPS OR OTHERWISE PROPPED OPEN.
13. SPRINKLER AND ALARM SYSTEMS SHALL BE PROVIDED WHEN REQUIRED BY CBC/CFC CHAPTER 9 AND LOCAL ORDINANCE. IN STRUCTURES OF UNDETERMINED USE, THE MINIMUM FIRE SPRINKLER DESIGN DENSITY REQUIRED SHALL BE ORDINARY HAZARD (GROUP 2) WITH A DESIGN AREA OF 3000 SQUARE FEET.
14. EXISTING SPRINKLER AND ALARM SYSTEMS IN SPACES UNDERGOING REMODELING SHALL BE EVALUATED BY A LICENSED CONTRACTOR KNOWLEDGEABLE IN SUCH SYSTEMS TO DETERMINE WHETHER CHANGES WILL BE NECESSARY TO MAINTAIN THESE SYSTEMS IN CONFORMANCE WITH APPLICABLE STANDARDS. IF MODIFICATIONS ARE NECESSARY, PLANS SHALL BE SUBMITTED TO THE OCFA FOR REVIEW AND APPROVAL PRIOR TO MODIFICATION OF THE SYSTEM. SPRINKLER AND ALARM SYSTEMS SHALL BE SUPERVISED BY A UL-LISTED CENTRAL ALARM STATION.
15. WHERE COMMERCIAL-TYPE FOOD HEATING OR COOKING EQUIPMENT THAT PRODUCES GREASE-LADEN VAPORS IS PRESENT, AN AUTOMATIC EXTINGUISHING SYSTEM SHALL BE PROVIDED AND SHALL COMPLY WITH CFC, CMC, AND NFPA 17A. REVIEW AND APPROVAL OF A HOOD AND DUCT EXTINGUISHING SYSTEM PLAN BY THE OCFA IS REQUIRED PRIOR TO INSTALLATION, MODIFICATION, REARRANGEMENT, OR USE OF COOKING EQUIPMENT.
16. HAZARDOUS MATERIALS EQUIPMENT, PROCESSES, STORAGE, DISPENSING, OR USE SHALL COMPLY WITH CBC AND CFC REGULATIONS AND SHALL BE REVIEWED AND APPROVED BY THE OCFA PRIOR TO SUCH MATERIALS OR EQUIPMENT BEING BROUGHT ON SITE.
17. STORAGE AREAS GREATER THAN 500 SQ.FT. WITH HIGH HAZARD MATERIALS STORED HIGHER THAN SIX FEET AND OTHER MATERIALS STORED HIGHER THAN TWELVE FEET ARE NOT PERMITTED WITHOUT FIRST SUBMITTING PLANS TO AND OBTAINING APPROVAL FROM THE OCFA.
18. A NEW HVAC UNIT EXCEEDING A 2,000 CFM CAPACITY SHALL BE PROVIDED WITH A DUCT SMOKE DETECTOR. THIS DETECTOR SHALL SHUT DOWN ONLY THE AFFECTED INDIVIDUAL HVAC UNIT UPON SMOKE DETECTION. THIS DETECTOR MUST ALSO BE INTERFACED TO AN EXISTING FIRE ALARM SYSTEM. THE DETECTOR SHALL ONLY PROVIDE A SUPERVISORY SIGNAL AT THE FIRE ALARM PANEL UPON SMOKE DETECTION.

SHEET INDEX:

SEE SHEET T1.0 FOR SHEET INDEX.

STORM WATER POLLUTION PREVENTION NOTES

STORMWATER POLLUTION PREVENTION DEVICES AND PRACTICES SHALL BE INSTALLED AND/OR INSTITUTED AS NECESSARY TO ENSURE COMPLIANCE TO THE CITY OF IRVINE WATER QUALITY STANDARDS CONTAINED IN CHAPTER 3. WATER, OF DIVISION 8 OF TITLE 6 OF THE IRVINE MUNICIPAL CODE AND ANY EROSION CONTROL PLAN ASSOCIATED WITH THIS PROJECT. ALL SUCH DEVICES AND PRACTICES SHALL BE MAINTAINED, INSPECTED AND/OR MONITORED TO ENSURE ADEQUACY AND PROPER FUNCTION THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.

COMPLIANCE TO THE WATER QUALITY STANDARDS AND ANY EROSION AND SEDIMENT CONTROL PLAN ASSOCIATED WITH THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING REQUIREMENTS:

1. AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL MEASURES (BMPs) SHALL BE IMPLEMENTED TO PROTECT THE EXPOSED PORTIONS OF THE SITE FROM EROSION AND TO PREVENT SEDIMENT DISCHARGES.
2. SEDIMENTS AND OTHER POLLUTANTS SHALL BE RETAINED ON SITE UNTIL PROPERLY DISPOSED OF, AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
3. STOCKPILES OF EARTH AND OTHER CONSTRUCTION-RELATED MATERIALS SHALL BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND AND WATER FLOW.
4. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS SHALL BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM, NOR BE ALLOWED TO SETTLE OR INFILTRATE INTO SOIL.
5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTES.
6. TRASH AND CONSTRUCTION SOLID WASTES SHALL BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
7. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICULAR TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITS SHALL BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
8. STORMWATER POLLUTION PREVENTION DEVICES AND/OR PRACTICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES TO ENSURE EFFECTIVENESS.

RECYCLING:

CONSTRUCTION WASTE MATERIAL SHALL BE RECYCLED PER APPROVED CONSTRUCTION WASTE REDUCTION COMPLIANCE REPORT.

- OCFA Architectural Notes
- INSPECTIONS
1. OCFA final inspection required. Please schedule all field inspections at least 72 hours in advance. Inspections canceled after 1 p.m. on the day before the scheduled date will be subject to a reinspection fee. Phasing of inspections may require additional fees, also. Call OCFA Inspection Scheduling at 714-573-6150.
2. Buildings under construction or demolition shall conform to CFC Chapter 33. No smoking or cooking is allowed in structures where combustible materials are exposed or within 25' of combustible materials storage areas. Cutting, welding, or other hot work shall be in conformance with CFC Chapter 35.
3. In buildings four or more stories in height, standpipes shall be provided during construction when the height reaches 40 feet above the lowest point of fire department access. A fire department connection shall be no more than 100 feet from available fire department vehicle access roadways. A hydrant shall be located along the access roadway within 150 feet of the location(s) that the FDC can be accessed from. CFC 3310, 3313
4. Address numbers shall be provided for all new and existing buildings, be a minimum of four inches high for individual dwelling units and six inches high for all other installations and structures, contrast with their background, and be plainly visible from the roadway the building is addressed on. Temporary address numbers shall be provided on construction fencing or the building until permanent numbers can be provided. CFC 501.2, CFC 505.1
5. Locations and classifications of extinguishers shall be in accordance with CFC 906 and CCR Title 19. At least one extinguisher shall be provided during construction on each floor at each stairway, in each storage and construction shed, in locations where flammable or combustible liquids are stored or used, or where similar hazards are present per CFC 3315.1. Before final occupancy, at least one 2A:10B:C extinguisher shall be provided so that no point is more than 75' travel distance from the extinguisher. Extinguishers shall be located along the path of egress travel and in a readily visible and accessible location, with the bottom of the extinguisher at least 4" above the floor. Additional extinguishers may be required by OCFA inspectors depending on project or site conditions and final placement is subject to their approval.
6. Wall, floor and ceiling finishes and materials shall not exceed the flame spread classifications in CBC Table 803.11. Decorative materials shall be properly treated by a product or process approved by the State Fire Marshal with appropriate documentation provided to the OCFA. Such items shall be approved and inspected by the OCFA prior to installation.
7. Knox boxes/key cabinets shall be provided for all high-rise buildings, pool enclosures, gates in the path of firefighter travel to structures, secured parking levels, doors giving access to alarm panels and/or annunciators, and any other structures or areas where immediate access is required or is unduly difficult. An OCFA inspector can assist with locking gate keys in Knox boxes, contact your local fire station to arrange an appointment to secure master building keys in the Knox box.
8. Approval of these plans shall not permit the violation of any code or law. Requirements or features not identified on the plan may apply and OCFA inspectors may require additional information or items from those shown on the plan depending on actual or anticipated field conditions. Such changes may necessitate submittal of revised or as-built plans to the OCFA and the City/County where the project is located.
- GENERAL REQUIREMENTS
9. The project shall comply with 2016 California Building Code, 2016 California Fire Code, and other currently adopted codes, standards, regulations and requirements as enforced by the Orange County Fire Authority.
10. Dumpsters and trash containers exceeding 1.5 cubic yards shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless protected by an approved sprinkler system or located in a Type I or IIA structure separated by 10 feet from other structures. Containers larger than 1 cubic yard shall be of non- or limited-combustible materials or similarly protected or separated. CFC 304.3
11. Exits, exit signs, fire alarm panels, hose cabinets, fire extinguisher locations, and standpipe connections shall not be concealed by curtains, mirrors, or other decorative material.
12. The egress path shall remain free and clear of all obstructions at all times. No storage is permitted in aisles.
13. Exit doors shall be operable from the inside without the use of a key or any special knowledge or effort. Doors shall not be provided with thumb-turn locks or deadbolts that do not unlatch in tandem with the normal operating lever. The opening force for interior doors without closers shall not exceed 5 pounds. The unlatching and opening force for other doors, including fire doors, shall not exceed 15 pounds. CBC 1010
14. The exit path shall be clearly identified with exit signs conforming to CBC 1013. Illuminated exit signs must have 90-minute emergency power back-up.
15. Tactile signs shall be provided in commercial buildings, public buildings/accommodations, and publicly funded housing subject to CBC Chapters 11A and B and conform to 1143A or 11B-703.1, -703.2, -703.3, and 703.5, be mounted with the bottom of the lowest line of Braille characters at least 4 feet above the floor but the bottom of the highest line of raised text characters no more than 6 feet above the floor and, whenever possible, on the strike side of the door. Lettering shall be between 5/8" and 2" high. CBC 1013.4
16. Stairs serving 4+ stories shall have stairwell signs conforming to CBC 1023.9 and OCFA Guideline E-02
17. The exit path shall be illuminated at all times in accordance with CBC 1006. Emergency lighting shall be provided with 90-minute back-up.
18. Rated assemblies shall conform to approved methods and materials of construction. Penetrations through rated walls, ceilings, or floors shall be protected in an approved manner complying with CBC/CFC Chapter 7.
19. Rated doors shall be self-closing and latching; such doors shall not be equipped with door stops or otherwise propped open. Rated doors shall be equipped with rated hardware. CFC 703

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- Page 4
- PROJECT-SPECIFIC REQUIREMENTS
- ASSEMBLY OCCUPANCIES
20. Occupant load sign, with minimum one-inch letters and numbers contrasting with their background, shall be posted in a conspicuous location near the main exit per CBC 1004.3 and Title 19 3.30. Where multiple seating configurations or uses are anticipated, seating diagrams and their respective occupant loads may also be required to be posted.
21. Panic hardware shall be provided for all exit and exit access doors in assembly occupancies. Such doors shall swing in the direction of exit travel. Doors equipped with panic hardware shall have no other lock or latch except panic hardware. If panic hardware is omitted on the main door when permitted by CBC 1010.1.8.3, a sign stating "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED" in minimum 1-inch letters contrasting with their background shall be posted in a conspicuous location on or adjacent to the door and the door shall be equipped only with a key-operated lock that visually indicates whether it is open or locked.
22. Tables shall be spaced at least 50 inches apart where seating is back to back and aisle accessways serve more than 4 occupants or are longer than six feet. Aisle widths shall be a minimum of 36 inches where seating is only on one side of the aisle or 42 inches for seating on both sides. Where seats back up into aisles, seat backs shall be located at 19 inches from the table edge and the clear aisle width shall be measured from the back of the seat. CBC 1029.12
23. Open flame in assembly areas is prohibited except as specifically permitted by OCFA in compliance with CFC Chapter 3.
- EXTINGUISHING SYSTEMS
24. An automatic fire sprinkler system shall be provided throughout the building in compliance with CFC 903 and the applicable 2016 NFPA sprinkler standard. Review and approval of a sprinkler plan is required prior to installation or modification.
25. An automatic extinguishing system shall be provided to protect commercial-type food heating equipment that produces grease-laden vapors and shall comply with 2016 CFC and CMC and 2009 NFPA 17A. Review and approval of a hood and duct extinguishing system plan is required prior to installation or use of cooking equipment.

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ARCHITECTURE + PLANNING +

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STATE OF CALIFORNIA

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER
1 SUNNYHILL
IRVINE, CA 92620

SHEET TITLE:
CITY OF IRVINE STANDARD GENERAL NOTES

DRAWN BY:
R. MEDINA

DATE:
05.11.18

SCALE:
AS NOTED

PROJECT NO:
1705

SHEET:
T1.2

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1

INSPECTOR
SIGNOFF

CHAPTER 3 GREEN BUILDING SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed building [N] or to additions and alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 Phased projects. For shell buildings and others constructed for future tenant improvements, only those measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Tenant improvements. The provisions of this code shall apply only to the initial tenant or occupant improvements to a project.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL

5.101.1 Scope. The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS

The following terms are defined in Chapter 2 (*and are included here for reference*)

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.

Eligible vehicles are limited to the following:

- Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer only) regulated under Health and Safety Code section 43800 and CCR, Title 13, Sections 1961 and 1962.
- High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane stickers issued by the Department of Motor Vehicles.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION. Newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

- 5.106.1.1 Local ordinance.** Comply with a lawfully enacted storm water management and/or erosion control ordinance.
- 5.106.1.2 Best Management Practices (BMP).** Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP.
 - Soil loss BMP that should be considered for each project include, but are not limited to, the following:
 - Scheduling construction activity.
 - Preservation of natural features, vegetation and soil.
 - Drainage swales or lined ditches to control stormwater flow.
 - Mulching or hydroseeding to stabilize disturbed soils.
 - Erosion control to protect slopes.
 - Protection of storm drain inlets (gravel bags or catch basin inserts).
 - Perimeter sediment control (perimeter silt fence, fiber rollers).
 - Sediment trap or sediment basin to retain sediment on site.
 - Stabilized construction exits.
 - Wind erosion control.
 - Other soil loss BMP acceptable to the enforcing agency.
 - Good housekeeping BMP to manage construction equipment, materials and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
 - Material handling and waste management.
 - Building materials stockpile management.
 - Management of washout areas (concrete, paints, stucco, etc.).
 - Control of vehicle/equipment fueling to contractor's staging area.
 - Vehicle and equipment cleaning performed off site.
 - Spill prevention and control.
 - Other housekeeping BMP acceptable to the enforcing agency.

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5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. [BSC] If the project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with over 10 tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicle parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet one of the following:

- Covered, lockable enclosures with permanently anchored racks for bicycles;
- Lockable bicycle rooms with permanently anchored racks; or
- Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.

5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

- Covered, lockable enclosures with permanently anchored racks for bicycles;
- Lockable bicycle rooms with permanently anchored racks; or
- Lockable, permanently anchored bicycle lockers.

5.106.5.2 DESIGNATED PARKING. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as follows:

TABLE 5.106.5.2 - PARKING	
TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the California Energy Commission (CEC) and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- The type and location of the EVSE.
- A listed raceway capable of accommodating a 208/240 -volt dedicated branch circuit.
- The raceway shall not be less than trade size 1."
- The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed suitable cabinet, box, enclosure or equivalent.
- The service panel, or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- The type and location of the EVSE.
- The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
- Plan design shall be based upon 40-ampere minimum branch circuits.
- Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
- The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

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5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

- Where there is insufficient electrical supply.
- Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

TABLE 5.106.5.3.3	
TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-50	0
51-75	1
76-100	2
101-200	3
201 AND OVER	3% ¹

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking.
Notes:

- The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. www.dot.ca.gov/hq/traffops/policy/13-01.pdf.
- See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
- The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.

5.106.8 LIGHT POLLUTION REDUCTION. [N] Outdoor lighting systems shall be designed and installed to comply with the following:

- The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
- Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
- Allowable BUG ratings not exceeding those shown in Table 5.106.8, or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

- Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
- Emergency lighting.

Note: [N] See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

- Swales.
- Water collection and disposal systems.
- French drains.
- Water retention gardens.
- Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS ^{1,2}				
ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
MAXIMUM ALLOWABLE BACKLIGHT RATING ¹				
Luminaire greater than 2 mounting heights (MH) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING				
For area lighting ¹	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	U1	U2	U3	U4
MAXIMUM ALLOWABLE GLARE RATING ²				
Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting".

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

INSPECTOR
SIGNOFF

DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL

5.201.1 Scope [BSC]. *California Energy Code [DSA-SS].* For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2 (*and are included here for reference*)

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWEL0). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWEL0). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWEL0, or adopt a local ordinance at least as effective as the MWEL0.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter.

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum allowed water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWEL0).

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

- For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
- Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
 - Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
 - Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
 - Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads.

5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

5.303.4 Areas of addition or alteration. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1401.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

5.304.1 WATER BUDGET. A water budget shall be developed for landscape irrigation use that installed in conjunction with a new building or an addition or alteration conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Water Efficient Landscape Ordinance where no local ordinance is applicable.

Note: Prescriptive measures to assist in compliance with the water budget are listed in Sections 492.5 through 492.8, 492.10 and 492.11 of the ordinance, which may be found at: <http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm>

5.304.2 OUTDOOR POTABLE WATER USE. For new water service or for addition or alteration requiring upgraded water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet (the level at which Water Code §535 applies), separate submeters or metering devices shall be installed for outdoor potable water use.

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER

1 SUNDYHILL
IRVINE, CA 92620

SHEET TITLE:
MANDATORY GREEN BUILDING CODE CHECKLIST

DRAWN BY:

R. MEDINA

DATE:

05.11.18

SCALE:

AS NOTED

PROJECT NO:

1705

SHEET:

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3

INSPECTOR SIGNOFF																																																																																																													
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5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following: 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.). 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards. 5. Other methods acceptable to the enforcing agency.																																																																																																													

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For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1hr) of 50 dBA in occupied areas during any hour of operation. 5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior. 5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record. 5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40. 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	<p>Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.</p> <p>5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.</p> <p>5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.</p> <p>5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.</p> <p>5.508.2.1.2.1 Anchorage. One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mills.</p> <p>5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.</p> <p>Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.</p> <p>5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.</p> <p>5.508.2.2 Valves. Valves Valves and fittings shall comply with the <i>California Mechanical Code</i> and as follows.</p> <p>5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.</p> <p>5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.</p> <p>5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.</p> <p>5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.</p> <p>5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.</p> <p>5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.</p> <p>Exception: Valves with seal caps that are not removed from the valve during stem operation.</p> <p>5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.</p> <p>5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.</p> <p>5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.</p> <p>5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.</p> <p>5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.</p> <p>5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.</p> <p>5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.</p> <p>5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.</p> <p>5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.</p> <p>5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.</p> <p>5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.</p> <h3>CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS</h3> <h4>702 QUALIFICATIONS</h4> <p>702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:</p> <ol style="list-style-type: none">State certified apprenticeship programs.Public utility training programs.Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.Programs sponsored by manufacturing organizations.Other programs acceptable to the enforcing agency. <p>702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:</p> <ol style="list-style-type: none">Certification by a national or regional green building program or standard publisher.Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.Successful completion of a third party apprentice training program in the appropriate trade.Other programs acceptable to the enforcing agency. <p>Notes:</p> <ol style="list-style-type: none">Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS). <p>[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.</p> <p>Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.</p> <h4>703 VERIFICATIONS</h4> <p>703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.</p>

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE: TURTLE ROCK COMMUNITY CENTER 1 SUNNYHILL IRVINE, CA 92603	
SHEET TITLE: MANDATORY GREEN BUILDING CODE CHECKLIST	
DRAWN BY: R. MEDINA	
DATE: 05.11.18	
SCALE: AS NOTED	
PROJECT NO: 1705	
SHEET: T1.4	

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2

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5.304.3 IRRIGATION DESIGN. In new nonresidential construction with at least 1,000 but not more than 2,500 square feet of cumulative landscaped area (the level at which the MWEO applies), install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.

5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (*and are included here for reference*)

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

TEST. A procedure to determine quantitative performance of a system or equipment

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 (Weather Protection) and California Energy Code Section 150, (Mandatory Features and Devices), manufacturer's installation instructions or local ordinance, whichever is more stringent.

5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 50% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. [BSC] 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of known pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdffa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics and metals or meet a lawfully enacted local recycling ordinance, if more restrictive..

5.410.1.1 Additions. [A] All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

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Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

5.410.2 COMMISSIONING. [N] For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements.
2. Basis of design.
2. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Commissioning requirements for energy systems covered by the *California Energy Code*.
5. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and/or air conditioning.

All building operating systems covered by Title 24, Part 6, as well as process equipment and controls, and renewable energy systems shall be included in the scope of commissioning requirements.

Informational Notes:

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 does not certify individuals to conduct functional performance tests or to adjust and balance systems.

2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code*.

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

1. Environmental and sustainability goals.
2. Energy efficiency goals [refer to 2013 California Energy Code, Section 120.8(b)].
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Heating, ventilation, air conditioning (HVAC) systems and controls [refer to 2013 California Energy Code, Section 120.8(c)].
2. Indoor lighting system and controls [refer to 2013 California Energy Code, Section 120.8(c)].
3. Water heating system [refer to 2013 California Energy Code, Section 120.8(c)].
4. Renewable energy systems.
6. Water reuse systems.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:

1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
 - a. An explanation of the original design intent.
 - b. Equipment and systems to be tested, including the extent of tests.
 - c. Functions to be tested.
 - d. Conditions under which the test shall be performed.
 - e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:

1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:

1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

5.410.4 TESTING AND ADJUSTING. Testing and adjusting of systems shall be required for buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. HVAC systems and controls.
2. Indoor and outdoor lighting and controls.
3. Water heating systems.
4. Renewable energy systems.
5. Landscape irrigation systems.
6. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guarantees/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

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5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 (*and are included here for reference*)

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, *airline ground support equipment*, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (L_{eq}). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hydrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2-1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O₃/g ROG).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, gauge.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.

SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.503 FIREPLACES

5.503.1 GENERAL. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7. Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA Phase II emission limits where applicable.

SECTION 5.504 POLLUTANT CONTROL

5.504.1.3 Temporary ventilation. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, or during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may collect in the system.

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5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

1. Adhesives, adhesive bonding primers adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT^{1,2}

Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

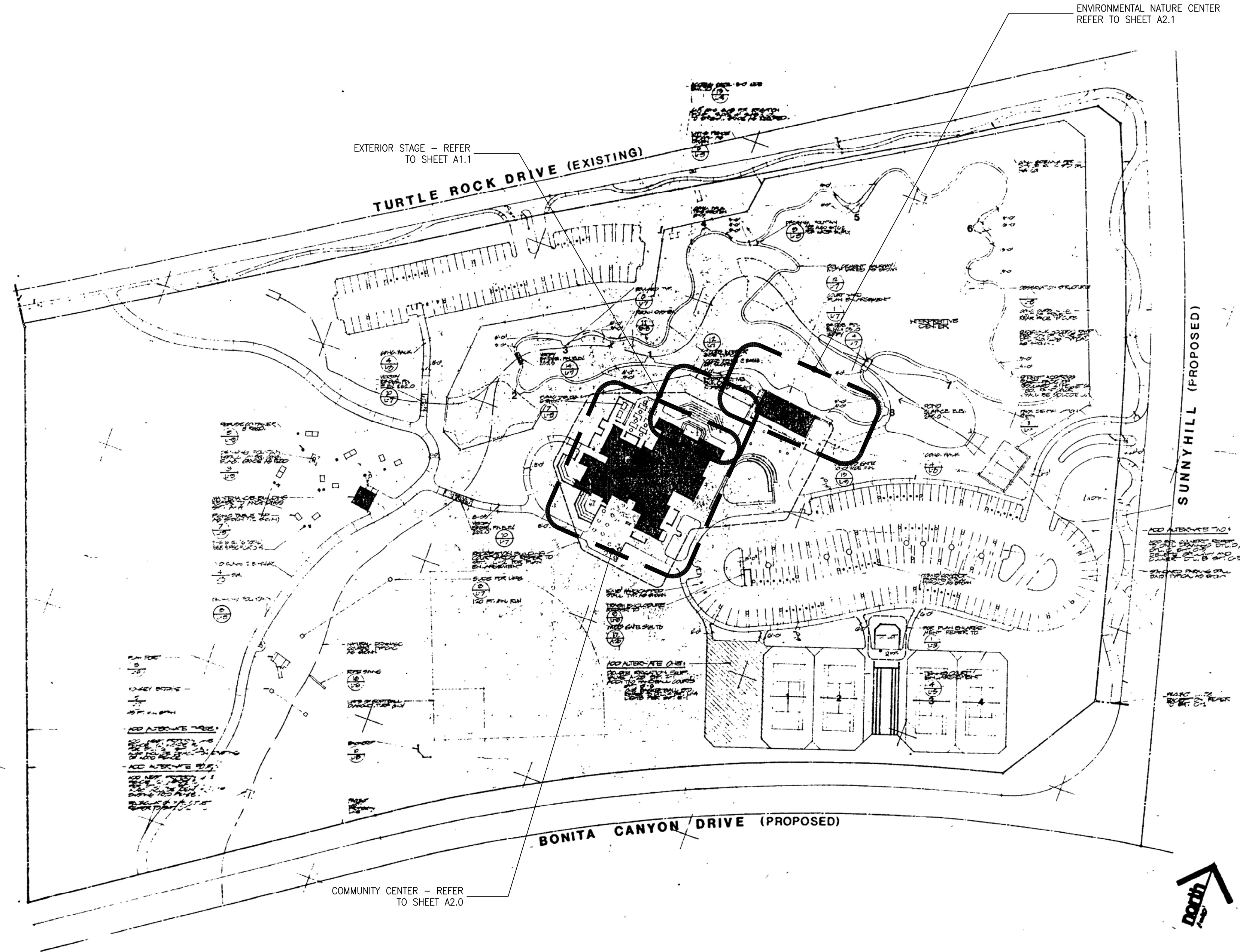
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

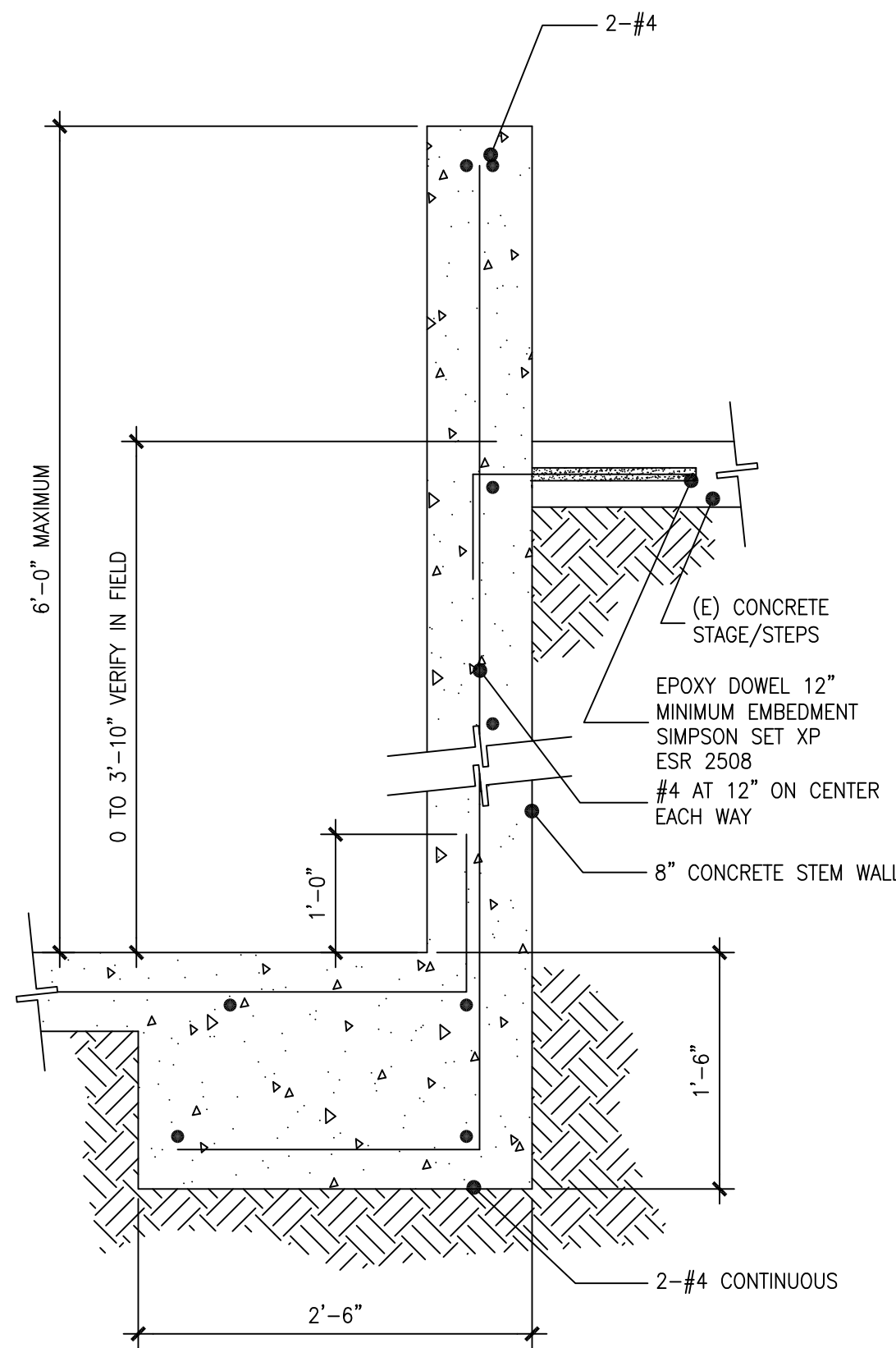
5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

EXISTING FLOOR PLAN

NOT TO SCALE



NOTE:
CONNECT VERTICAL CHAIR LIFT TO
CONCRETE STEM WALL WITH 1/2"
DIAMETER HILTI KWIK BOLT TZ44"
EMBEDMENT



2 STEM WALL AT EXTERIOR STAGE
1"=1'-0"
12-EXWALLDETAIL

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
SITE PLAN

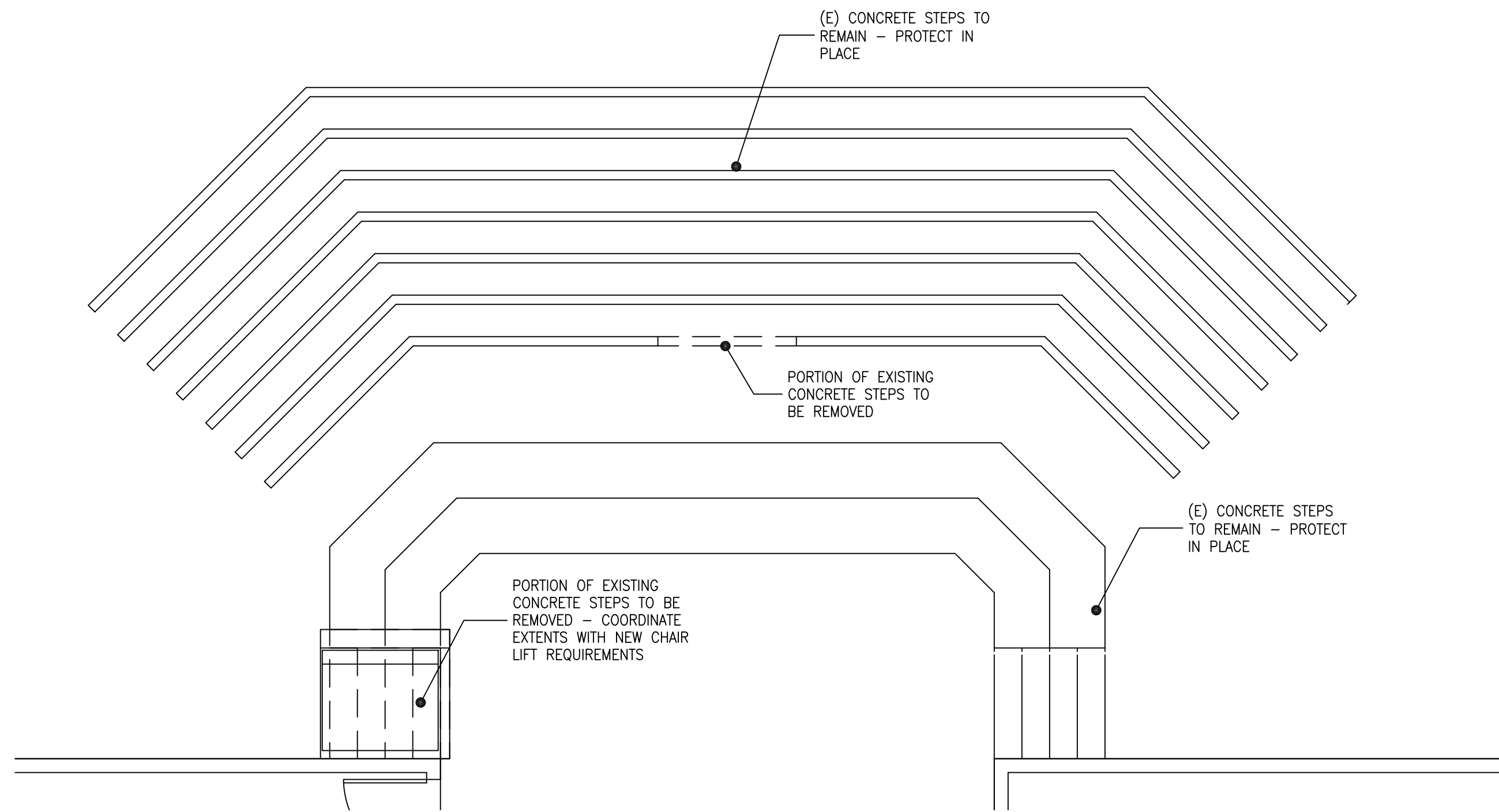
DRAWN BY: R. MEDINA
DATE: 05.11.18
SCALE: AS NOTED
PROJECT NO: 1705
SHEET:

A1.0

RM ARCHITECTURE
CONSTRUCTION MANAGEMENT
RUBIO MEDINA ARCHITECT
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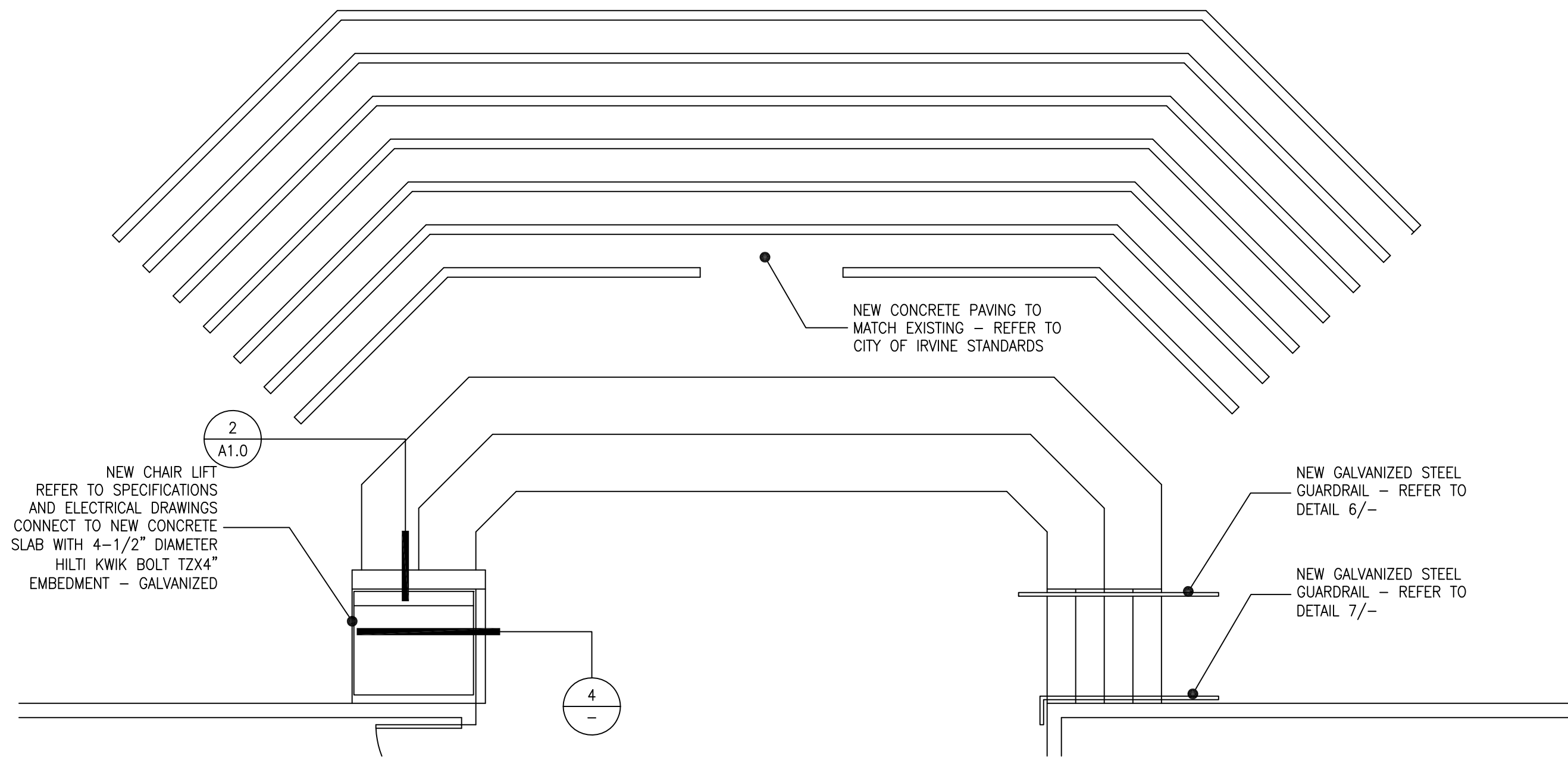
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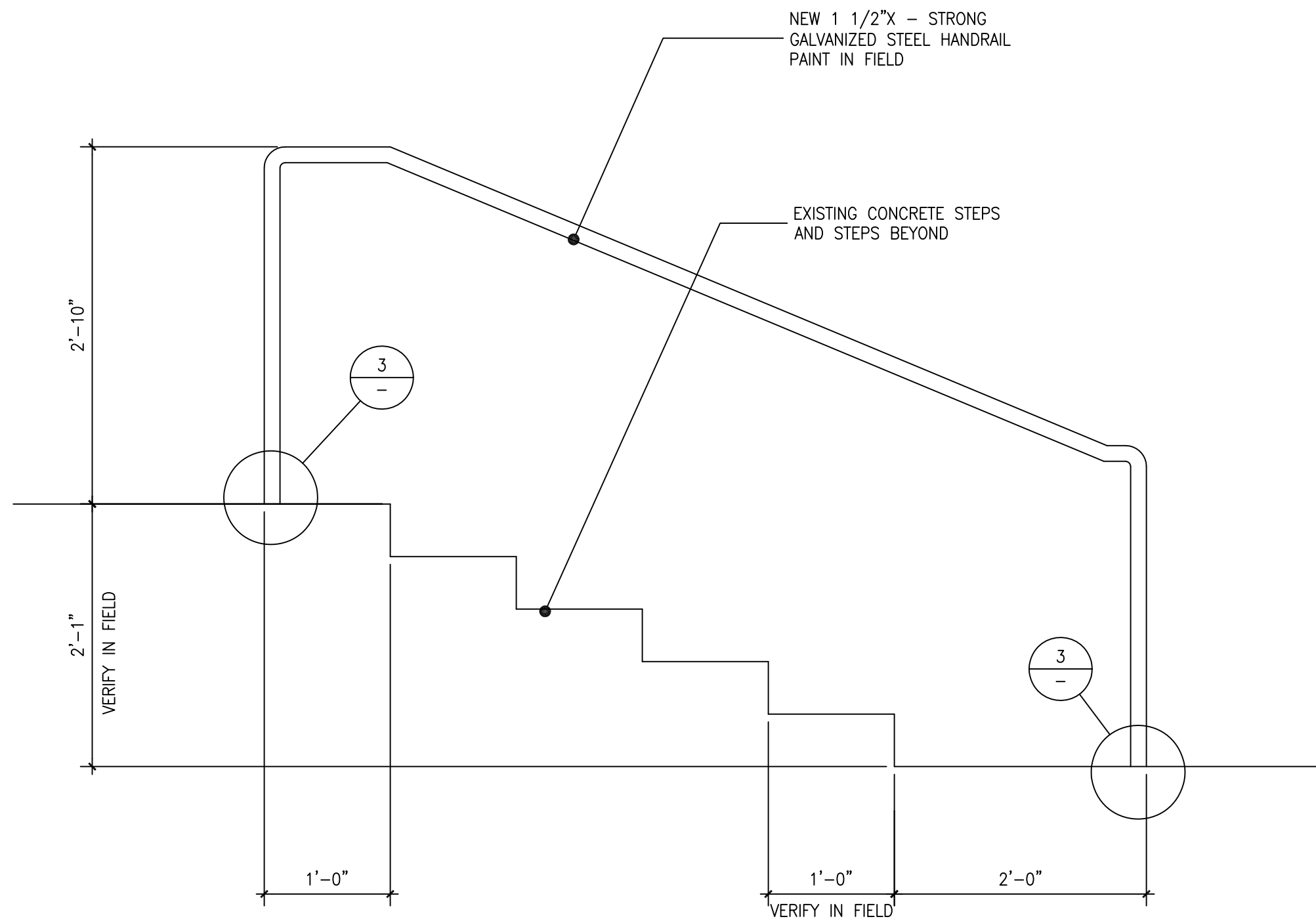
ENLARGED SITE DEMOLITION PLAN - OUTDOOR STAGE

SCALE: 1/4"=1'0"



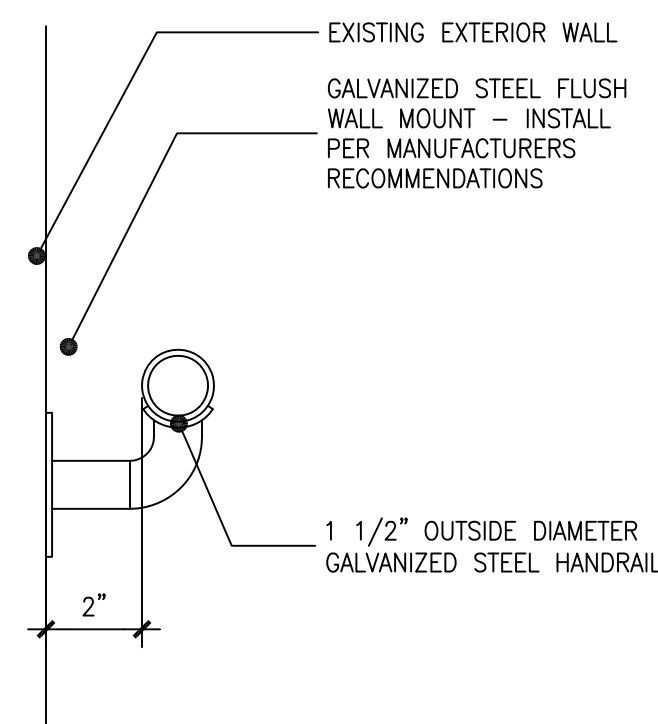
ENLARGED SITE REVISED PLAN - OUTDOOR STORAGE

SCALE: 1/4"=1'0"



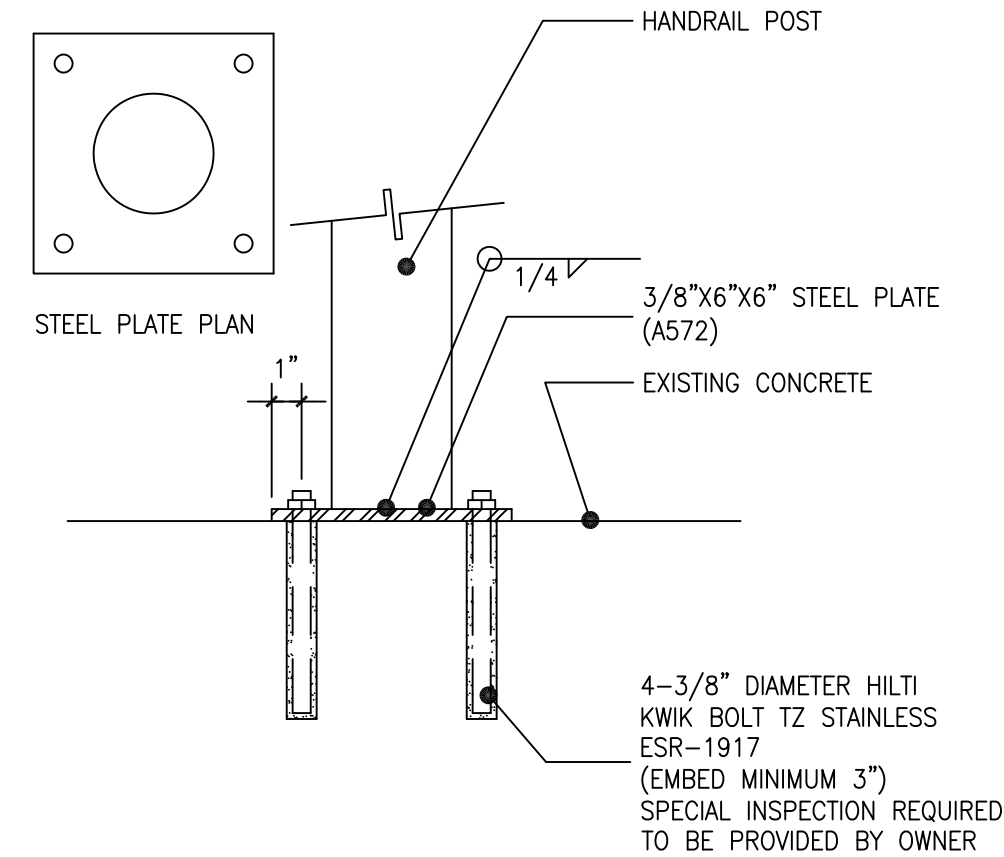
6 TILE AT WALL
1/2"=1'-0"

04--CBASE



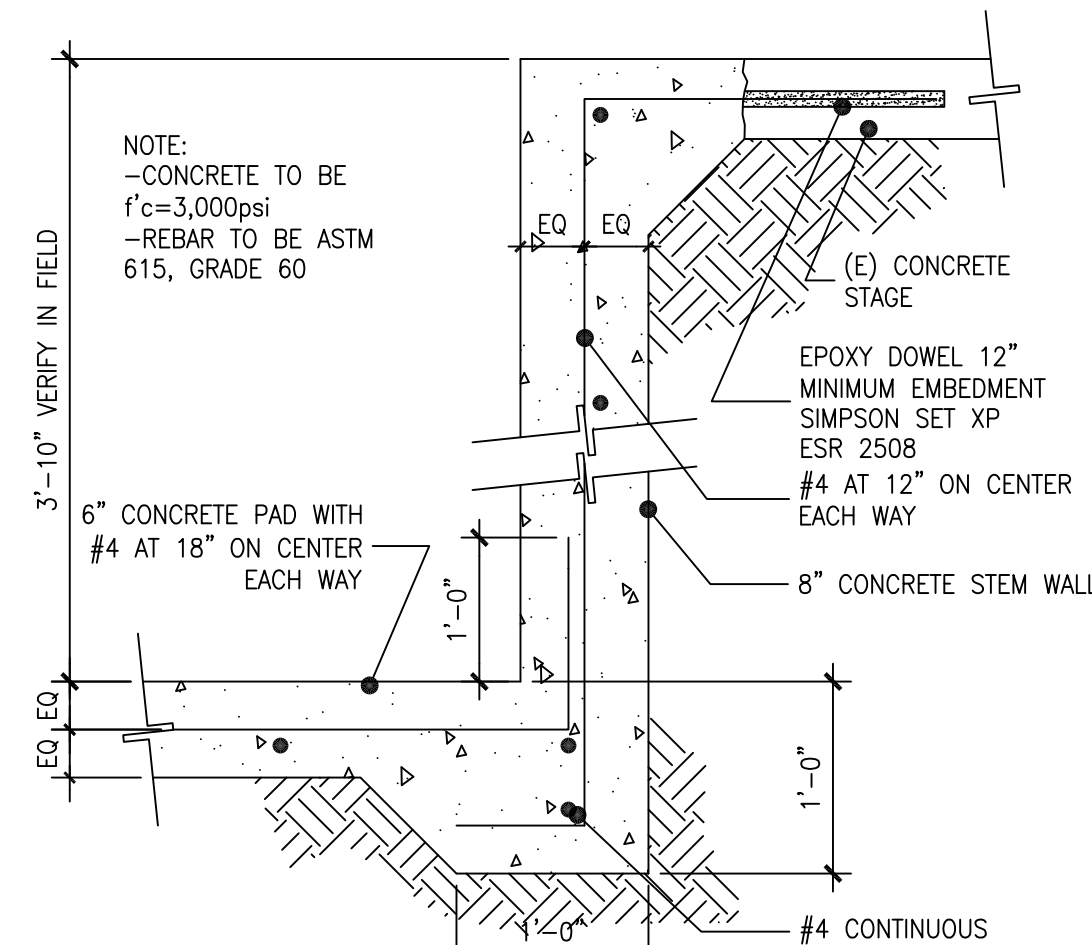
7 HANDRAIL DETAIL
3"=1'-0"

04--HANDRAIL



3 HANDRAIL POST
3"=1'-0"

04--POST



4 STEM WALL AT EXTERIOR STAGE
1"=1'-0"

12--EXWALLDETAIL

RM ARCHITECTURE
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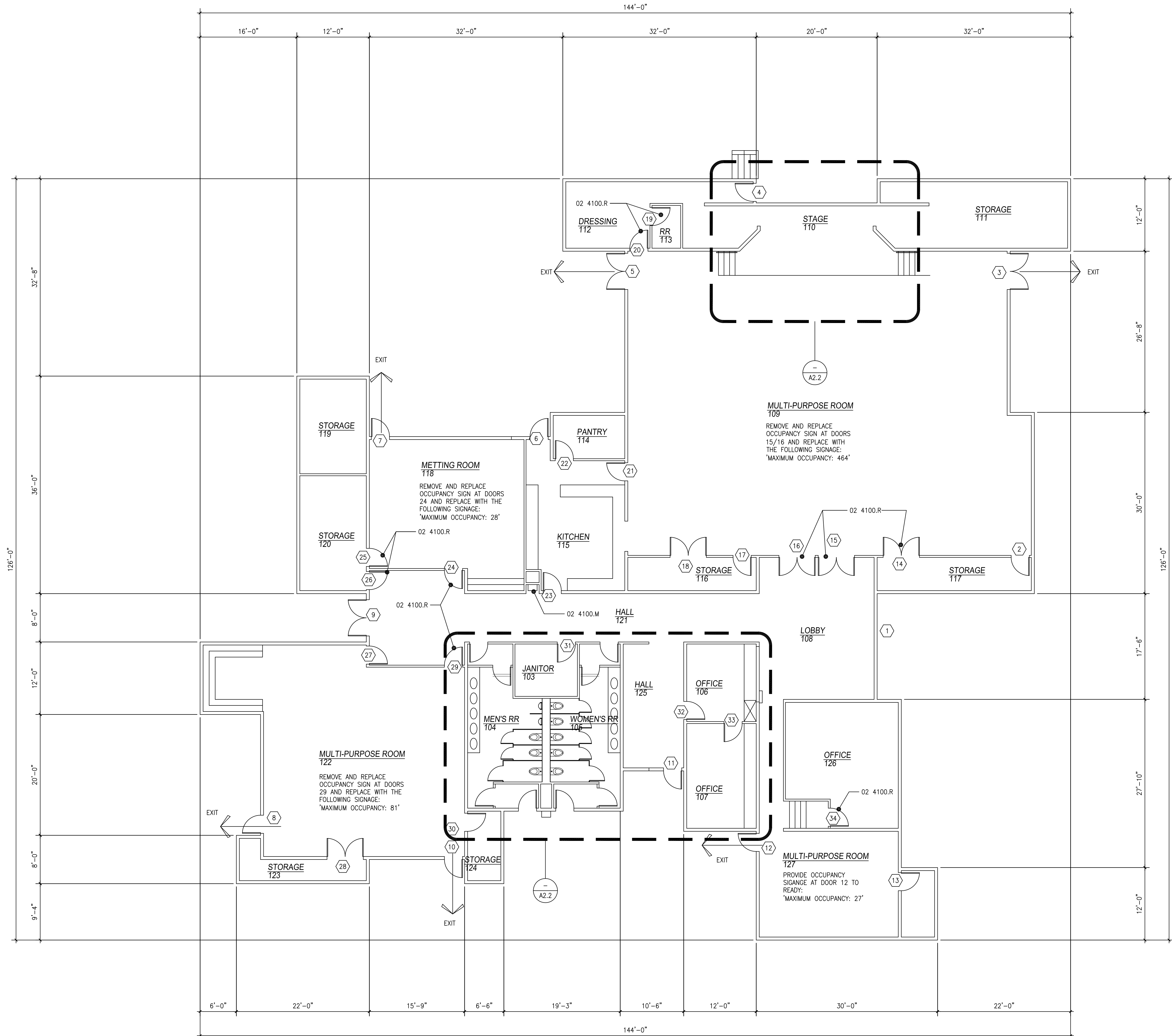
1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
ENLARGED OUTDOOR AMPHITHEATER

DRAWN BY: R. MEDINA
DATE: 05.11.18
SCALE: AS NOTED
PROJECT NO.: 1705
SHEET:

A1.1

EXISTING FLOOR PLAN



DEMOLITION NOTES

1. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER DEMOLITION REQUIREMENTS
2. REFER TO DOOR SCHEDULE FOR ADDITIONAL DOOR AND DOOR FRAME REMOVAL INFORMATION.
3. AT TILE FLOOR LOCATIONS, REMOVE SUBSTRATE
4. AT TILE WALL LOCATIONS REMOVE TILE SUBSTRATE TO EXPOSED STUDS
5. DEMOLISH THOSE PORTIONS THAT WOULD BE REQUIRED TO ACCOMPLISH THE NEW WORK INCLUDING WALLS, CEILINGS, AND FLOORS. REPLACE WORK REMOVED IN THIS MANNER.

CONSTRUCTION NOTES

- 02 4100 DEMOLITION
- 02 4100.A (E) PARTITION TO BE REMOVED
 - 02 4100.B (E) WATER CLOSET TO BE REMOVED
 - 02 4100.C (E) COUNTERTOP TO BE REMOVED
 - 02 4100.D (E) LAVATORY AND FIXTURES TO BE REMOVED
 - 02 4100.E (E) FLOORING AND WALL TILE TO BE REMOVED
 - 02 4100.F (E) URINAL TO BE REMOVED
 - 02 4100.G (E) URINAL SCREEN TO BE REMOVED
 - 02 4100.H (E) FLOOR DRAIN TO REMAIN - PROTECT IN PLACE
 - 02 4100.I PORTION OF EXISTING WALL TO BE REMOVED
 - 02 4100.J (E) FLOOR DRAIN - REFER TO PLUMBING DRAWINGS
 - 02 4100.K (E) WATER HEATER TO REMAIN
 - 02 4100.L (E) WALL TO BE REMOVED
 - 02 4100.M (E) DRINKING FOUNTAIN TO BE REMOVED
 - 02 4100.N (E) STEPS TO BE REMOVED
 - 02 4100.O (E) COUNTERTOP TO BE REMOVED
 - 02 4100.P PORTION OF EXISTING BASE CABINET TO BE REMOVED
 - 02 4100.Q (E) WINDOW SYSTEM TO BE REMOVED AND RECONFIGURED
 - 02 4100.R (E) DOOR TO BE REMOVED
- 06 6510 SOLID SURFACE FABRICATIONS
- 06 6510.A SOLID SURFACE COUNTERTOP AND BACKSPLASH
 - 06 6510.B 8" DIAMETER CUTOUT IN COUNTERTOP
- 09 3000 CERAMIC TILE
- 09 3000.A MARBLE THRESHOLD - REFER TO DETAIL 14/A-2.2
- 10 4000 IDENTIFICATION DEVICES
- 10 4000.A PROVIDE NEW ACCESSIBLE SIGNAGE AT DOORS - REFER TO DETAIL 5/D-1.0
- 22 4000 PLUMBING FIXTURES
- 22 4000.A WATER CLOSET - REFER TO PLUMBING DRAWINGS
 - 22 4000.B WALL HUNG SINK - REFER TO PLUMBING DRAWINGS
 - 22 4000.C LAVATORY - REFER TO PLUMBING DRAWINGS
 - 22 4000.D FLOOR DRAIN - REFER TO PLUMBING DRAWINGS AND DETAIL 15/A-2.2
 - 22 4000.E URINAL - REFER TO PLUMBING DRAWINGS

WALL SYMBOLS

- ===== (E) WALL TO REMAIN
- ===== NEW 3 5/8" METAL STUD WALL - 16" ON CENTER
REFER TO DETAIL 6/D-1.0

EXIT ANALYSIS

- AT ALL EXIT LOCATIONS LISTED ON THE FLOOR PLAN PROVIDE TACTILE EXIT SIGNAGE COMPLYING WITH CBC 1013.4
- MULTIPURPOSE/STAGE EXITING (109, 110):
- MULTIPURPOSE (109): 3,132 SQ. FT.
 - TOTAL OCCUPANTS (1/7): 447
 - STAGE (110): 260 SQ. FT.
 - TOTAL OCCUPANTS (1/15): 17
 - TOTAL COMBINED OCCUPANTS: 464; 2 EXITS REQUIRED (TABLE 1006.2.1)
- MEETING ROOM EXITING (118):
- MEETING ROOM (118): 561 SQ. FT.
 - TOTAL OCCUPANTS (1/15): 38; 1 EXIT REQUIRED (TABLE 1006.2.1)
- MULTI-PURPOSE ROOM (122):
- MULTI-PURPOSE (122): 1,214 SQ. FT.
 - TOTAL OCCUPANTS (1/15): 81; 2 EXITS REQUIRED (TABLE 1006.2.1)
- MULTI-PURPOSE ROOM (127):
- MULTI-PURPOSE (127): 403 SQ. FT.
 - TOTAL OCCUPANTS (1/15): 27; 1 EXITS REQUIRED (TABLE 1006.2.1)
- PROVIDE EXIT SIGNAGE IN ACCORDANCE WITH CBC 1013.4 AS NOTED BELOW:
- 1013.4 RAISED CHARACTER AND BRAILLE EXIT SIGNS. TACTILE EXIT SIGNS SHALL BE REQUIRED AT THE FOLLOWING LOCATIONS:
1. EACH GRADE-LEVEL EXTERIOR EXIT DOOR THAT IS REQUIRED TO COMPLY WITH SECTION 1013.1, SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORD, 'EXIT'.
 2. EACH EXIT DOOR THAT IS REQUIRE TO COMPLY WITH SECTION 1013.1, AND THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE:
 - 2.1 'EXIT STAIR DOWN'
 - 2.2 'EXIT RAMP DOWN'
 - 2.3 'EXIT STAIR UP'
 - 2.4 'EXIT RAMP UP'
 3. EACH EXIT DOOR THAT IS REQUIRED TO COMPLY WITH SECTION 1013.1, AND THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR AN EXIT PASSAGE-WAY SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS 'EXIT ROUTE'
 4. EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO COMPLY WITH SECTION 1013.1, SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS 'TO EXIT'
- RAISED CHARACTER AND BRAILLE EXIT SIGNS SHALL COMPLY WITH CHAPTER 11A, SECTION 1143A OR CHAPTER 11B, SECTIONS 11B-703.1, 11B-703.2, 11B-703.3, AND 11B 703.5.

RM ARCHITECTURE

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE
OVERALL FLOOR AND DEMOLITION PLAN

DRAWN BY:

R. MEDINA

DATE:

05.11.18

SCALE:

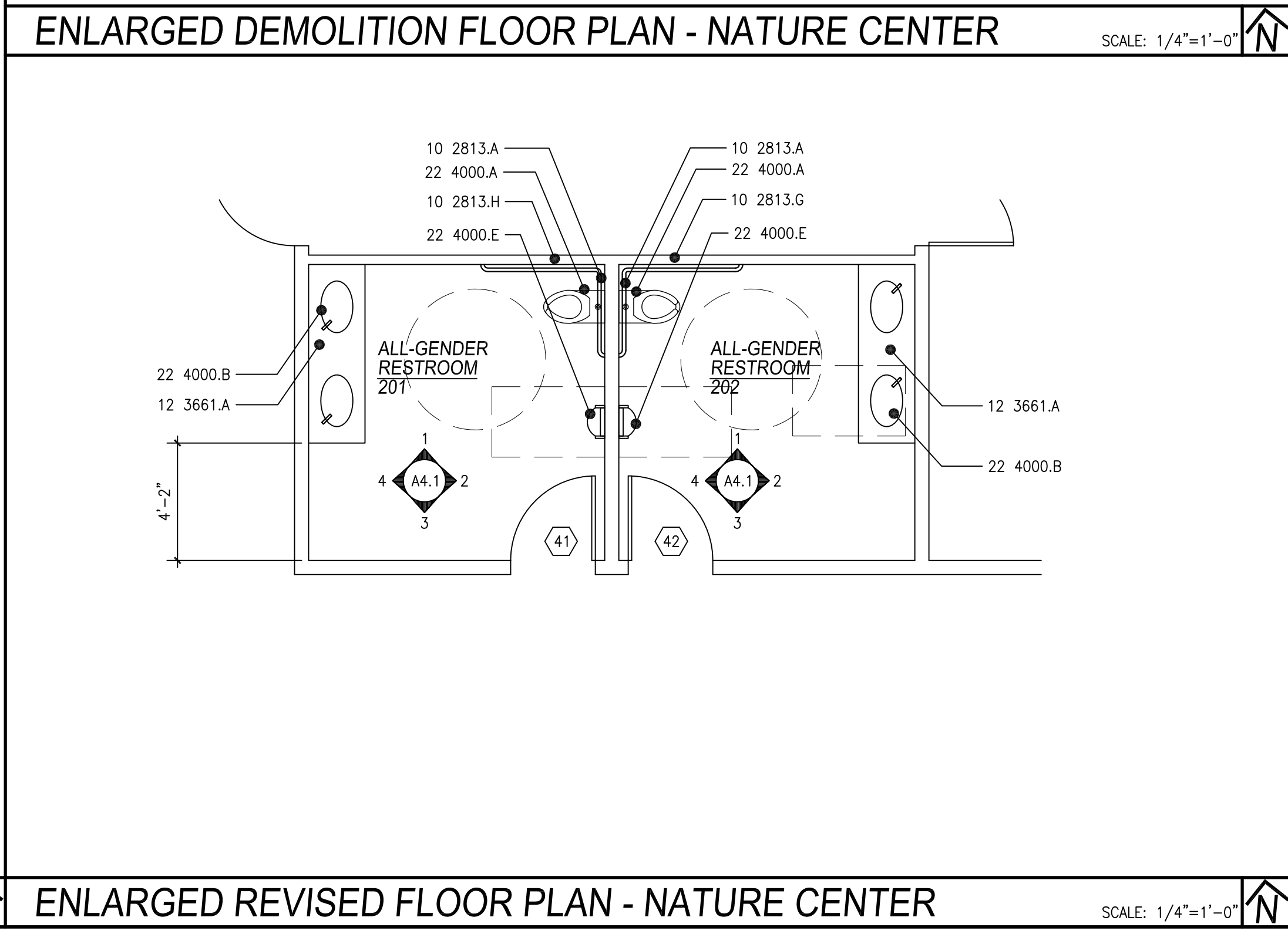
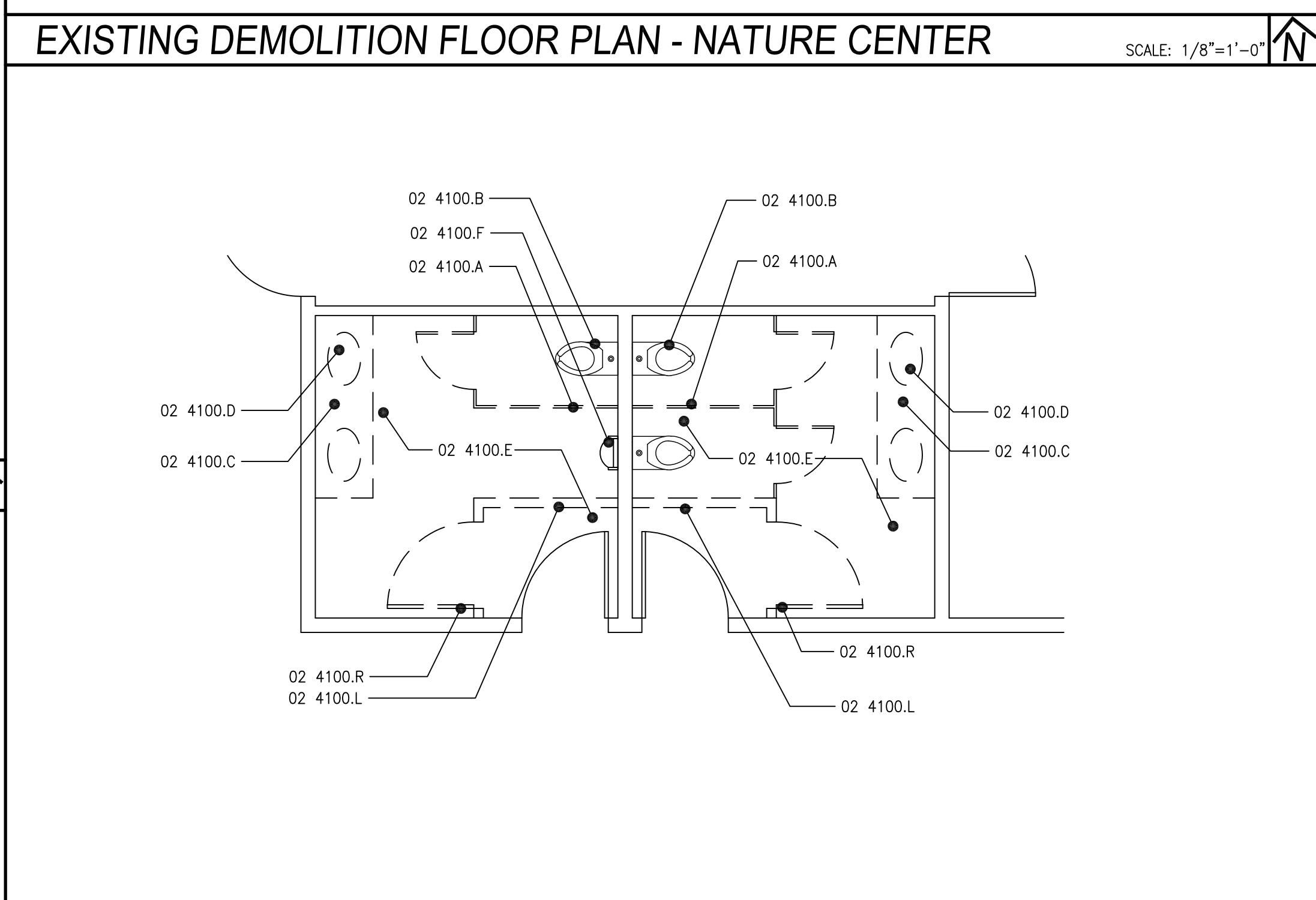
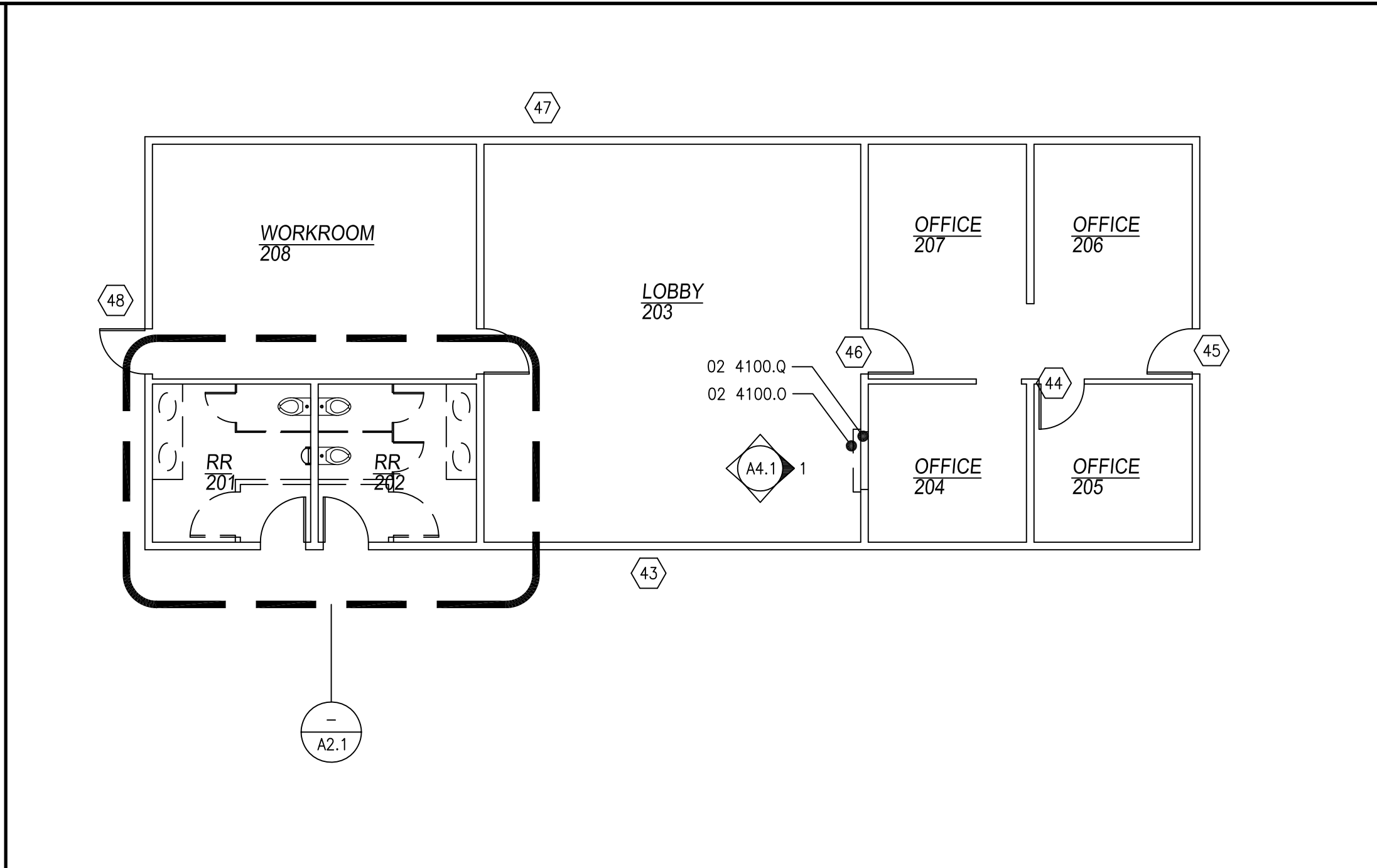
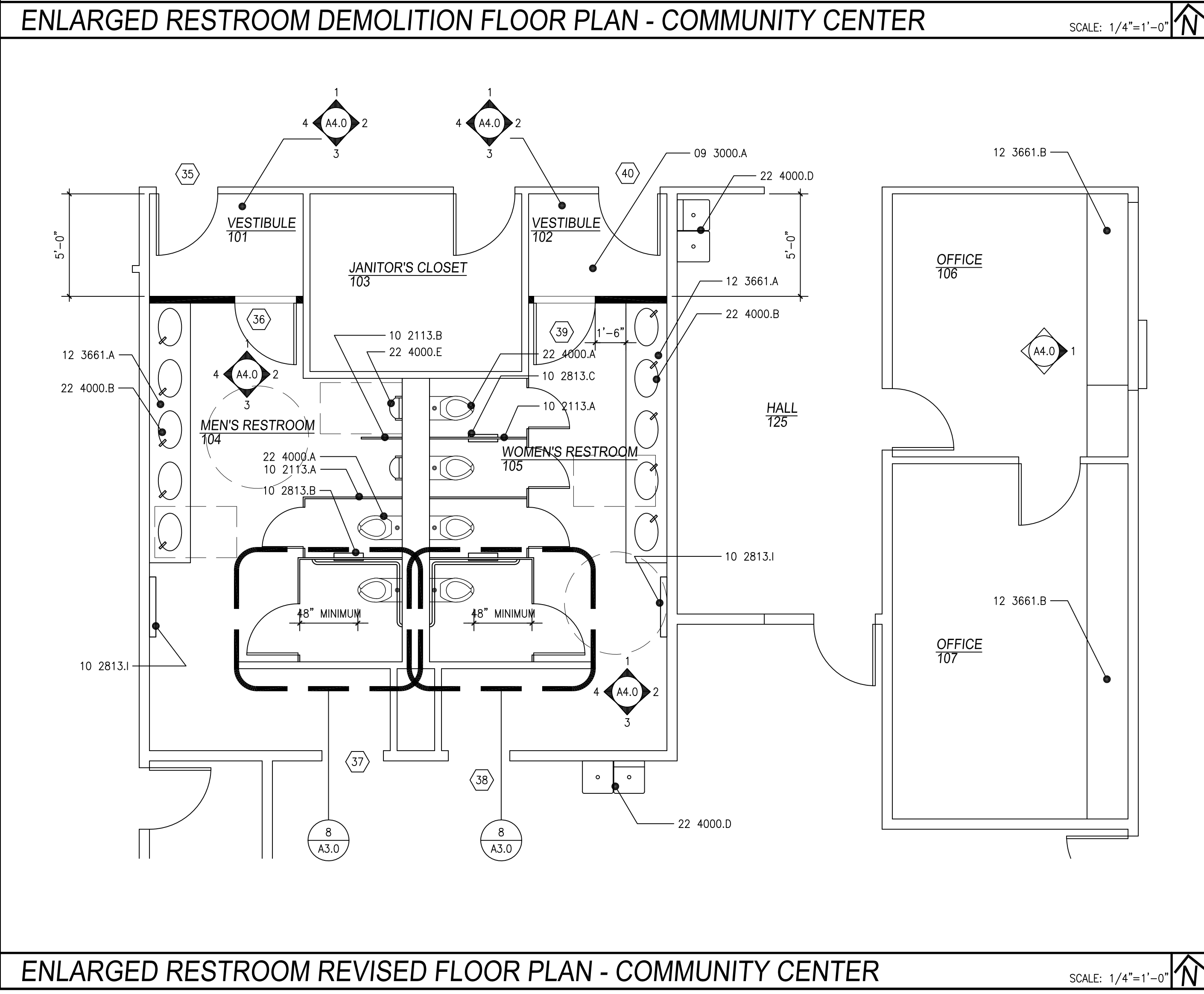
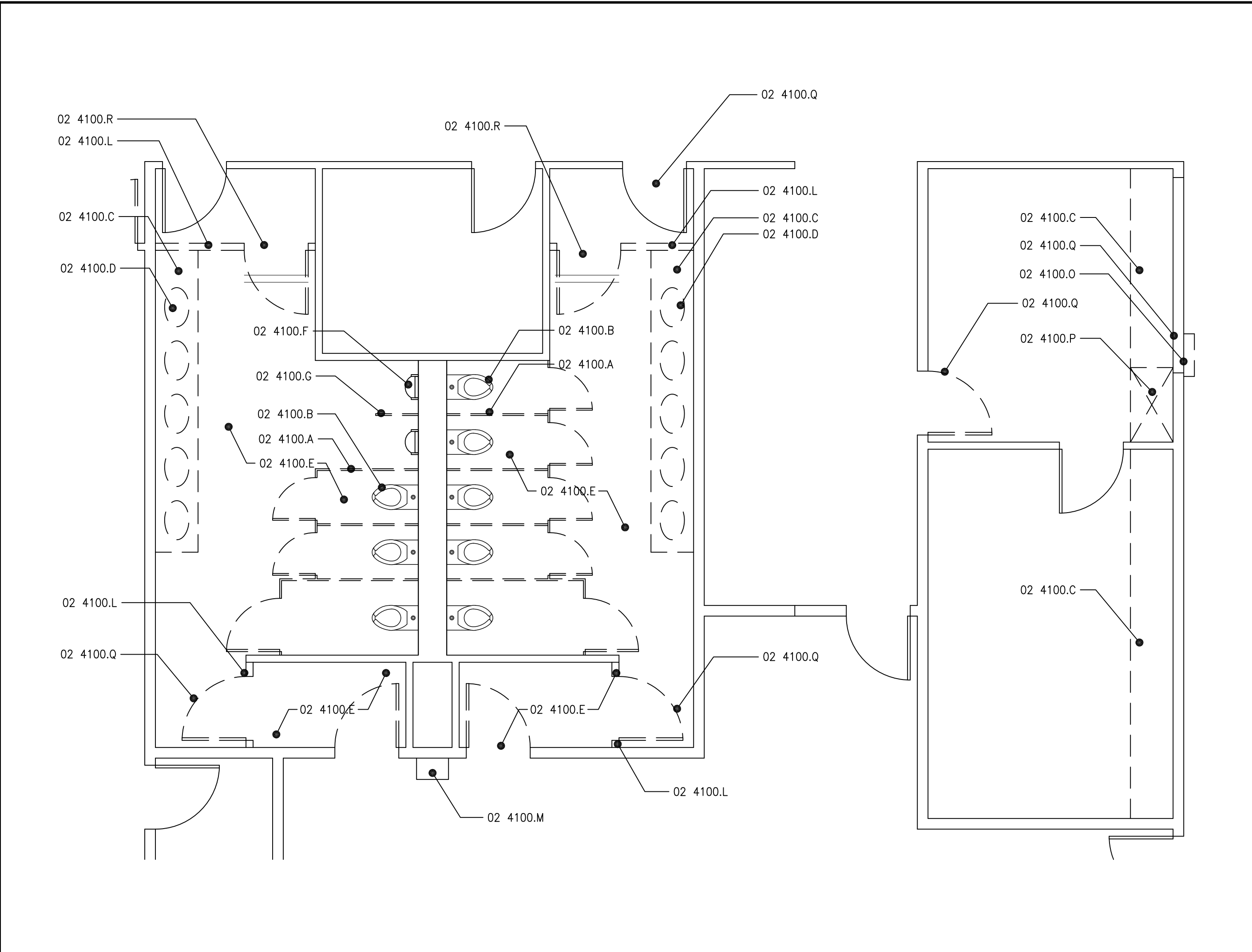
AS NOTED

PROJECT NO:

1705

SHEET:

A2.0



DEMOLITION NOTES

- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER DEMOLITION REQUIREMENTS
- REFER TO DOOR SCHEDULE FOR ADDITIONAL DOOR AND DOOR FRAME REMOVAL INFORMATION.
- REMOVE (E) ACCESSORIES IN WALL AND PARTITIONS IN RESTROOM WALLS AND PARTITIONS. PATCH AND REPAIR WALLS AS REQUIRED.
- WALL TILE LOCATIONS - REMOVE (E) SUBSTRATE/BACKING MATERIAL TO STUDS
- REMOVE THOSE PORTIONS OF WALLS, CEILINGS, AND CONCRETE SLABS AS REQUIRED TO ACCOMMODATE THE NEW WORK - PATCH AND REPAIR EXISTING WALLS, CEILINGS, AND FLOORING.
- MAINTAIN INTEGRITY OF ANY FIRE RATED WALLS.

CONSTRUCTION NOTES

02 4100 DEMOLITION

02 4100.A (E) PARTITION TO BE REMOVED.

02 4100.B (E) WATER CLOSET TO BE REMOVED

02 4100.C (E) COUNTERTOP TO BE REMOVED

02 4100.D (E) LAVATORY AND FIXTURES TO BE REMOVED

02 4100.E (E) FLOORING, BASE, AND WALL TILE TO BE REMOVED

02 4100.F (E) URINAL TO BE REMOVED

02 4100.G (E) URINAL SCREEN TO BE REMOVED

02 4100.H (E) FLOOR DRAIN TO REMAIN - PROTECT IN PLACE

02 4100.I PORTION OF EXISTING WALL TO BE REMOVED

02 4100.J (E) FLOOR DRAIN - REFER TO PLUMBING DRAWINGS

02 4100.K (E) WATER HEATER TO REMAIN

02 4100.L (E) WALL TO BE REMOVED

02 4100.M (E) DRINKING FOUNTAIN TO BE REMOVED

02 4100.N (E) STEPS TO BE REMOVED

02 4100.O (E) WOOD SHELF TO BE REMOVED

02 4100.P PORTION OF EXISTING BASE CABINET TO BE REMOVED AND SALVAGED FOR REUSE

02 4100.Q (E) WINDOW SYSTEM TO BE REMOVED AND RECONFIGURED

02 4100.R (E) DOOR TO BE REMOVED

09 3000 CERAMIC TILE

09 3000.A MARBLE THRESHOLD - REFER TO DETAIL 16/A4.1

10 2113 TOILET PARTITIONS

10 2113.A NEW TOILET PARTITION

10 2113.B NEW URINAL SCREEN

10 2813 TOILET, BATH, AND LAUNDRY ACCESSORIES

10 2813.A GRAB BAR (B-6897)

10 2813.B PARTITION MOUNTED SEAT COVER DISPENSER AND TOILET TISSUE DISPENSER (B-347)

10 2813.C PARTITION MOUNTED SEAT COVER DISPENSER, TOILET TISSUE DISPENSER, AND SANITARY NAPKIN DISPOSAL (B-3571 AT ACCESSIBLE STALL, B-357 AT STANDARD STALL)

10 2813.D ANGLE FRAME MIRROR (B-XX)

10 2813.E SURFACE MOUNTED SOAP DISPENSER (B-XX)

10 2813.F RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE (B-XX)

10 2813.G RECESSED SEAT COVER DISPENSER, TOILET TISSUE DISPENSER, AND SANITARY NAPKIN DISPOSAL (B-XX)

10 2813.H RECESSED SEAT COVER DISPENSER AND TOILET TISSUE DISPENSER (B-3574)

20 2813.I SURFACE MOUNTED BABY CHANGING STATION (KB200-SS)

10 4000 IDENTIFICATION DEVICES

10 4000.A PROVIDE NEW ACCESSIBLE SIGNAGE AT DOORS - REFER TO DETAIL 4-

12 3661 SIMULATED STONE COUNTERTOPS

12 3661.A SOLID SURFACE COUNTERTOP AND BACKSPLASH

12 3661.B SOLID SURFACE COUNTER TOP

22 4000 PLUMBING FIXTURES

22 4000.A WATER CLOSET - REFER TO PLUMBING DRAWINGS

22 4000.B LAVATORY - REFER TO PLUMBING DRAWINGS

22 4000.C FLOOR DRAIN - REFER TO PLUMBING DRAWINGS AND DETAIL 12/A4.1

22 4000.D DRINKING FOUNTAIN - REFER TO PLUMBING DRAWINGS

WALL SYMBOLS

— (E) WALL TO REMAIN

— NEW 3 5/8" METAL STUD WALL 16" ON CENTER
REFER TO DETAIL 6/D-1.0

RM ARCHITECTURE

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ARCHITECT

PLANNING

ARCHITECTURE

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:

ENLARGED COMMUNITY CENTER PLAN AND NATURE CENTER

DRAWN BY:

R. MEDINA

DATE:

05.11.18

SCALE:

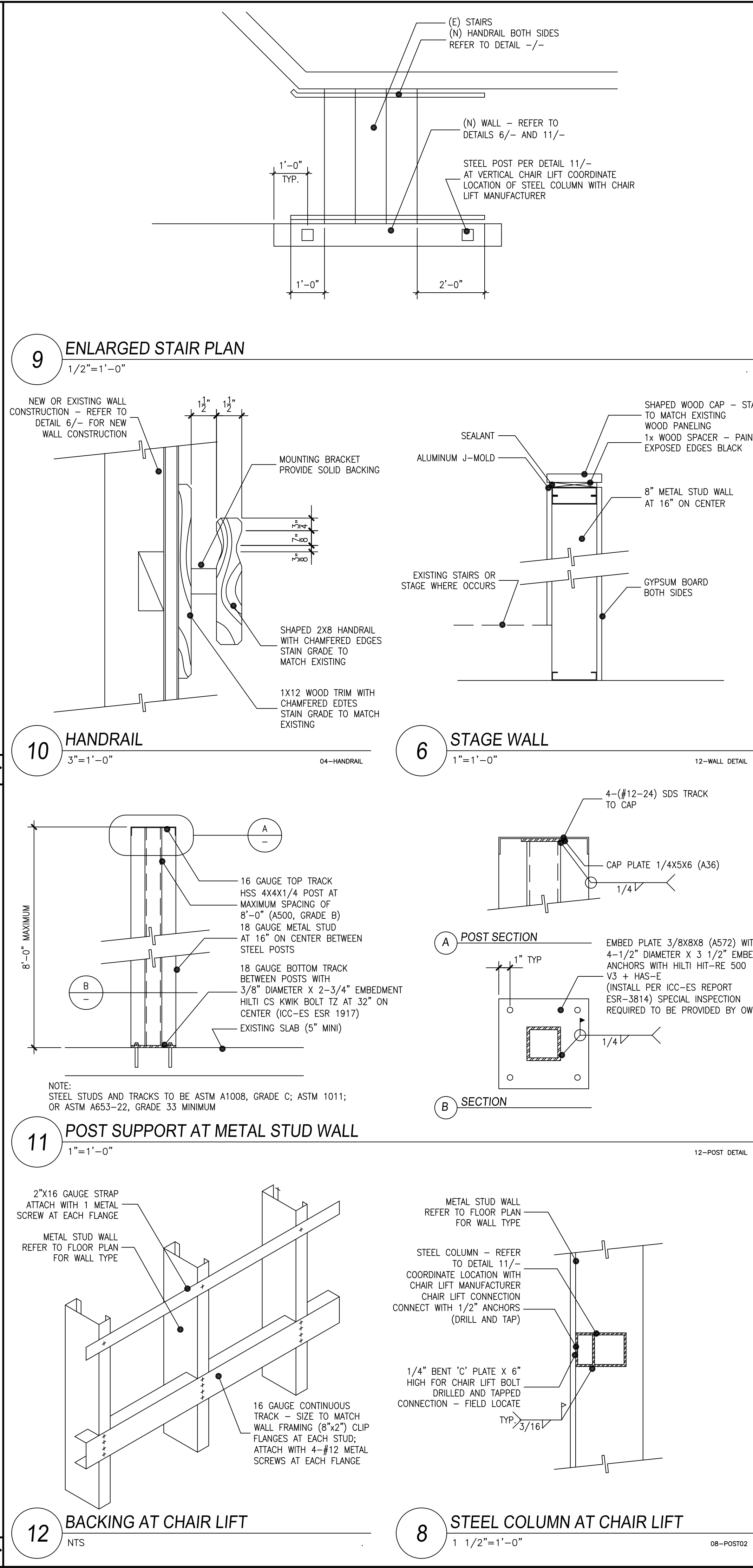
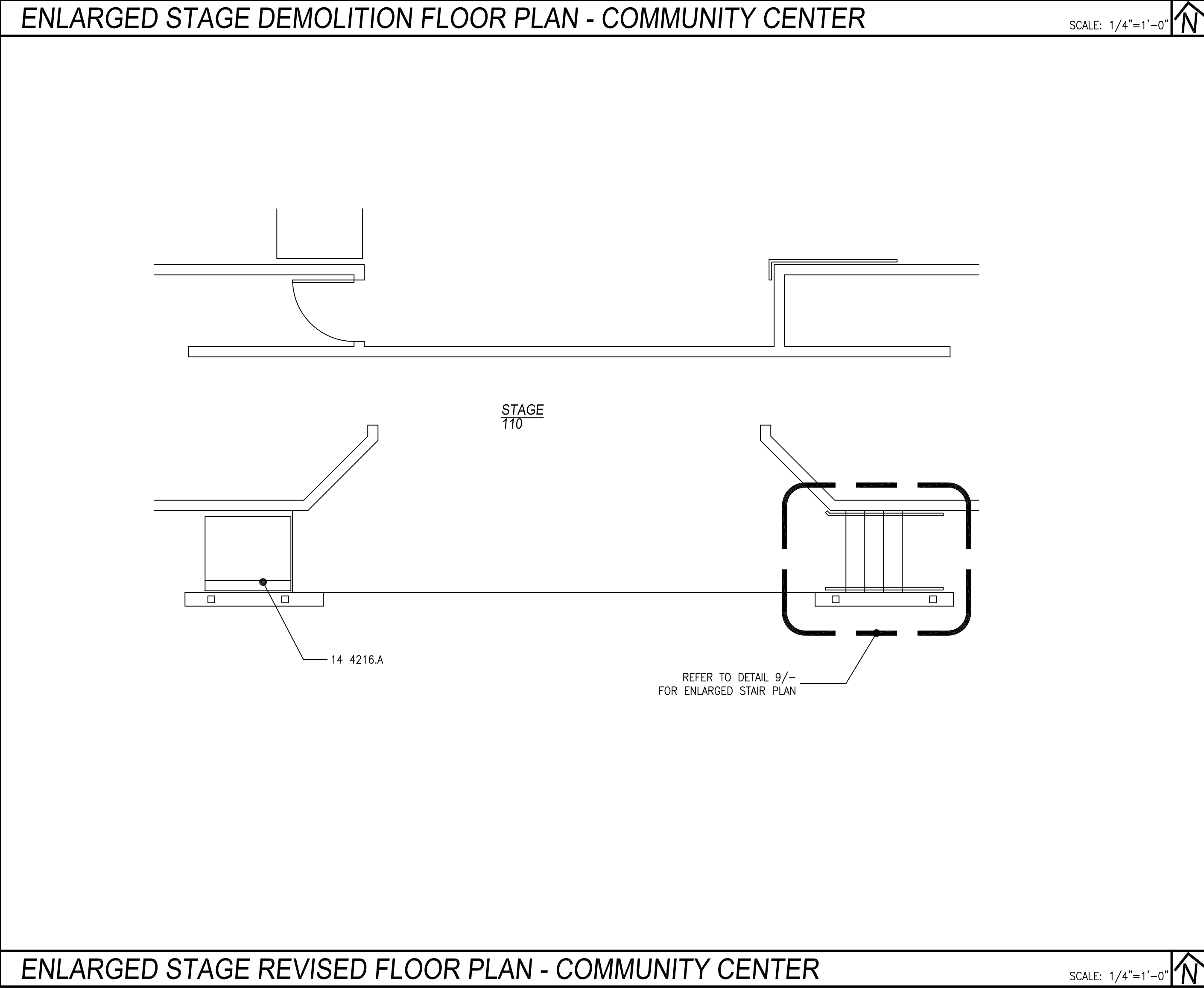
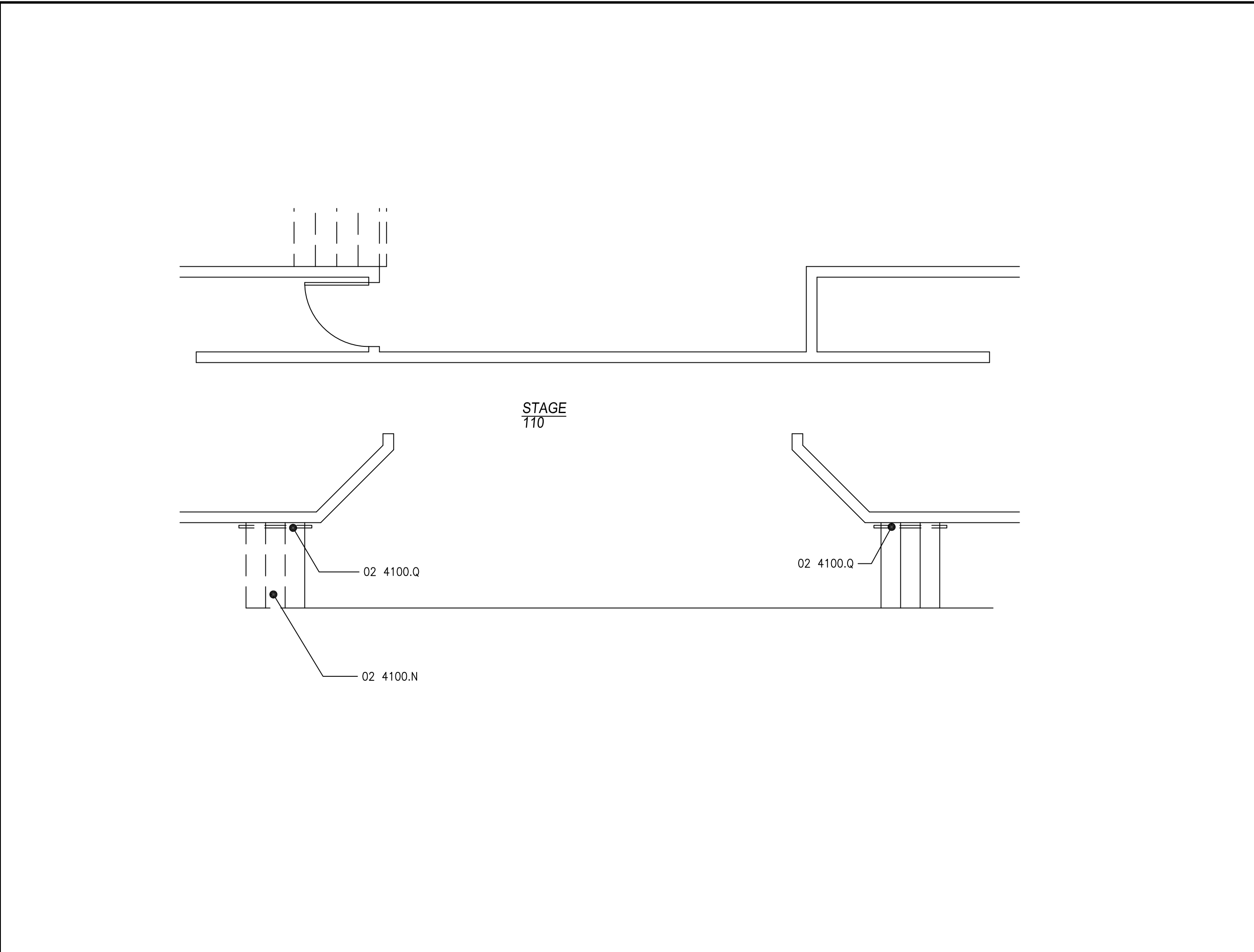
AS NOTED

PROJECT NO:

1705

SHEET:

A2.1



DEMOLITION NOTES

- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER DEMOLITION REQUIREMENTS
- REMOVE (E) ACCESSORIES IN WALL AND PARTITIONS IN RESTROOM WALLS AND PARTITIONS. PATCH AND REPAIR WALLS AS REQUIRED.
- WALL TILE LOCATIONS - REMOVE (E) SUBSTRATE/BACKING MATERIAL TO STUDS
- REMOVE THOSE PORTIONS OF WALLS, CEILINGS, AND CONCRETE SLABS AS REQUIRED TO ACCOMMODATE THE NEW WORK - PATCH AND REPAIR EXISTING WALLS, CEILINGS, AND FLOORING.
- MAINTAIN INTEGRITY OF ANY FIRE RATED WALLS.

CONSTRUCTION NOTES

02 4100 DEMOLITION

02 4100.A (E) PARTITION TO BE REMOVED.

02 4100.B (E) WATER CLOSET TO BE REMOVED

02 4100.C (E) COUNTERTOP TO BE REMOVED

02 4100.D (E) LAVATORY AND FIXTURES TO BE REMOVED

02 4100.E (E) FLOORING AND WALL TILE TO BE REMOVED

02 4100.F (E) URINAL TO BE REMOVED

02 4100.G (E) URINAL SCREEN TO BE REMOVED

02 4100.H (E) FLOOR DRAIN TO REMAIN - PROTECT IN PLACE

02 4100.I PORTION OF EXISTING WALL TO BE REMOVED

02 4100.J (E) FLOOR DRAIN - REFER TO PLUMBING DRAWINGS

02 4100.K (E) WATER HEATER TO REMAIN

02 4100.L (E) WALL TO BE REMOVED

02 4100.M (E) DRINKING FOUNTAIN TO BE REMOVED

02 4100.N (E) STEPS TO BE REMOVED

02 4100.O (E) COUNTERTOP TO BE REMOVED

02 4100.P PORTION OF EXISTING BASE CABINET TO BE REMOVED

02 4100.Q (E) HANDRAIL TO BE REMOVED

14 4216 VERTICAL CHAIR LIFT

14 4216.A VERTICAL CHAIR LIFT - CONNECT TO EXISTING CONCRETE SLAB WITH 4-1/2" DIAMETER HILTI KWIK BOLT X 4" EMBEDMENT - GALVANIZED

RM ARCHITECTURE

CONSTRUCTION MANAGEMENT

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ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SUNNYHILL

IRVINE, CA 92603

SHEET TITLE:

ENLARGED STAGE DEMOLITION AND REVISED PLAN

DRAWN BY:

R. MEDINA

DATE:

05.11.18

SCALE:

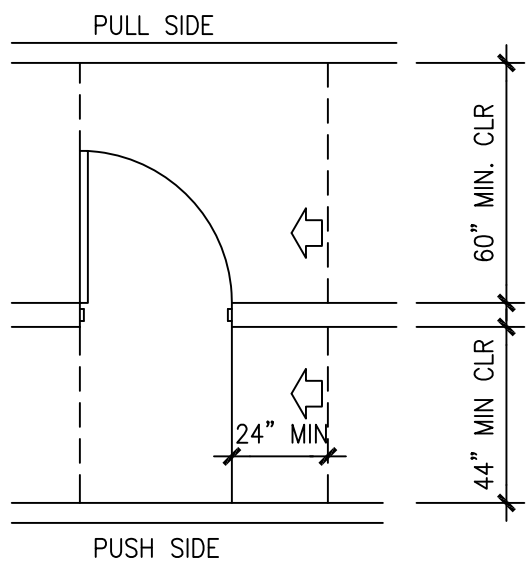
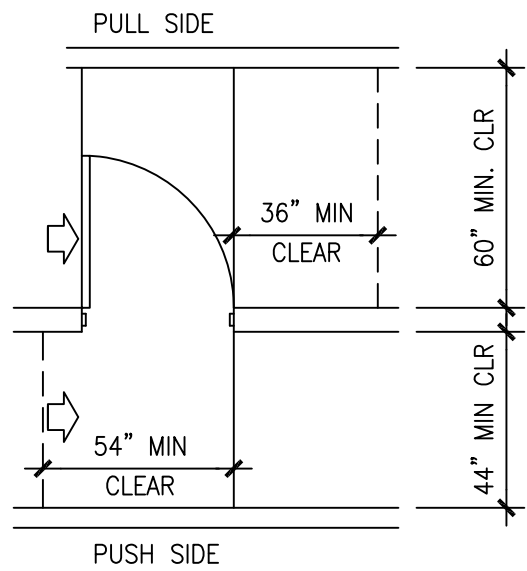
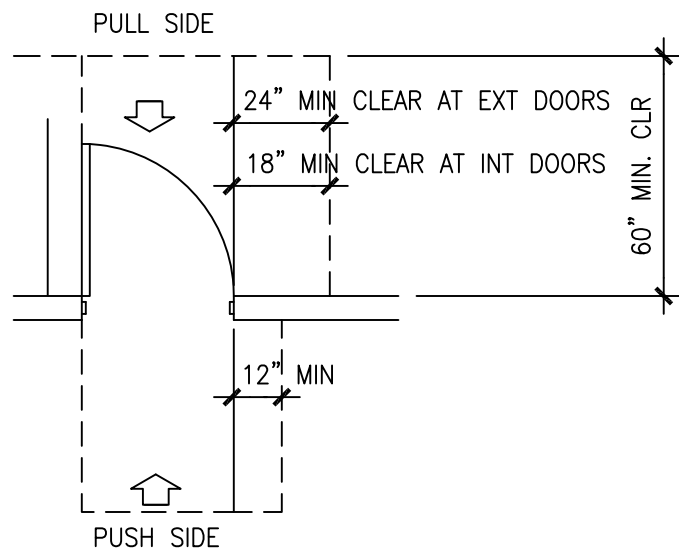
AS NOTED

PROJECT NO:

1705

SHEET:

A2.2



NOTE:
48" MIN IF DOOR
HAS BOTH A LATCH
AND A CLOSER

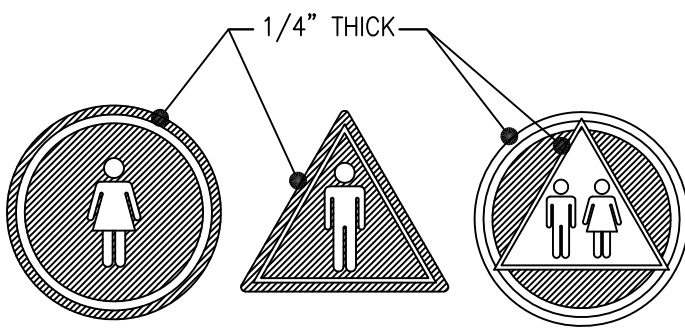
NOTE:
48" MIN IF DOOR
HAS BOTH A LATCH
AND A CLOSER

18 CLEARANCE AT DOORS

NTS

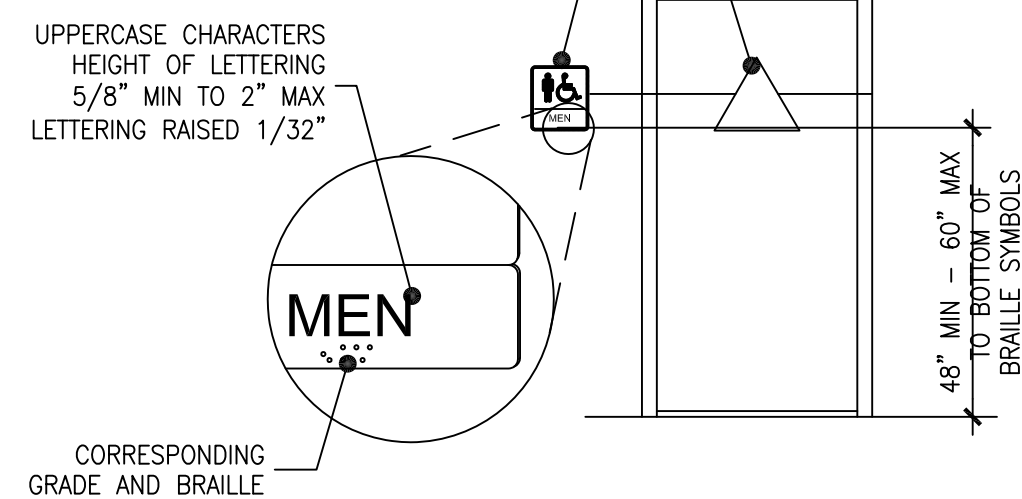


WALL SIGNAGE - TYPICAL



- NOTE:
- DOOR MOUNTED SIGNAGE - TYPICAL
 1. PICTOGRAM AND OR LETTERING ARE NOT REQUIRED ON DOOR MOUNTED SIGNAGE
 2. SIGNAGE TO BE 12" DIAMETER FOR CIRCULAR SIGANCE AND 12" LENGTH FOR EACH LEG FOR TRIANGLE
 3. THE TRIANGLE OR CIRCULAR SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND

WALL MOUNTED SIGNAGE TO BE LOCATED ON LATCH SIDE OF DOOR CLEAR OF DOOR SWING. MOUNT AT 60" TO CETERLINE OF SIGN FROM FLOOR



20 RESTROOM IDENTIFICATION

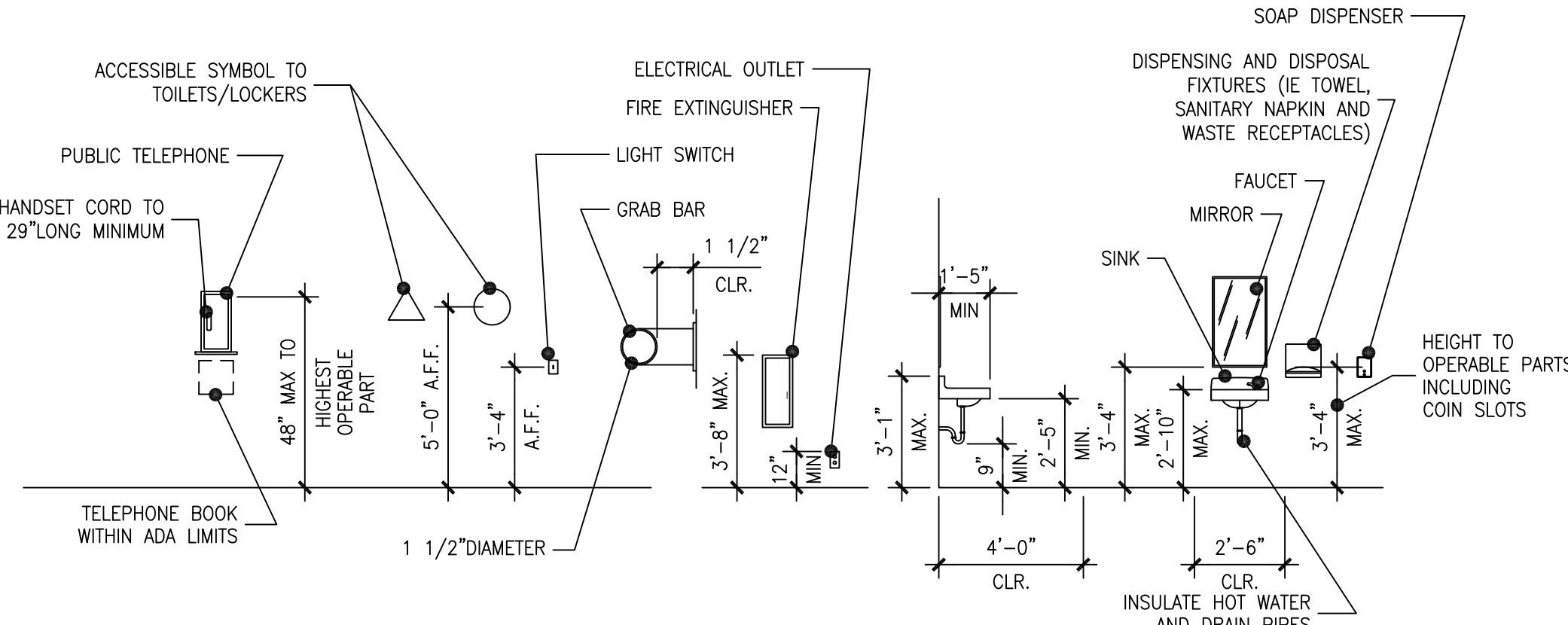
NTS

NUMBER	ROOM	FLOOR				BASE		WCT	WALLS		CEILING		REMARKS
		TILE				COVERED TILE BASE		TILE	TILE	GYPSUM BOARD	GYPSUM BOARD		
101	VESTIBULE												
102	VESTIBULE												
103	JANITOR'S CLOSET												
104	MEN'S RESTROOM												
105	WOMEN'S RESTROOM												
201	MEN'S RESTROOM												
202	WOMEN'S RESTROOM												

- ALL ROOMS NOT LISTED ON ROOM SCHEDULE ARE NOTED ON FLOOR PLAN FOR REFERENCE ONLY
- PATCH, REPAIR, AND PAINT EXISTING GYPSUM BOARD SURFACES
- XXX

FINISH SCHEDULE

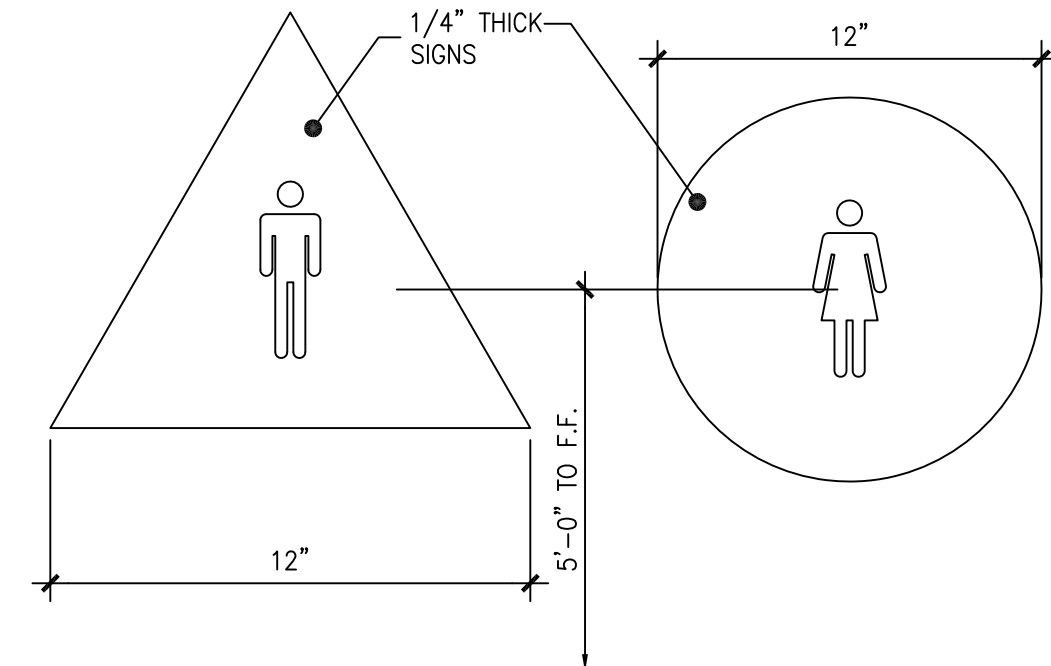
SCALE: 1/8"=1'-0"



15 TYPICAL ACCESSIBLE MOUNTING HEIGHTS

1/4"=1'-0"

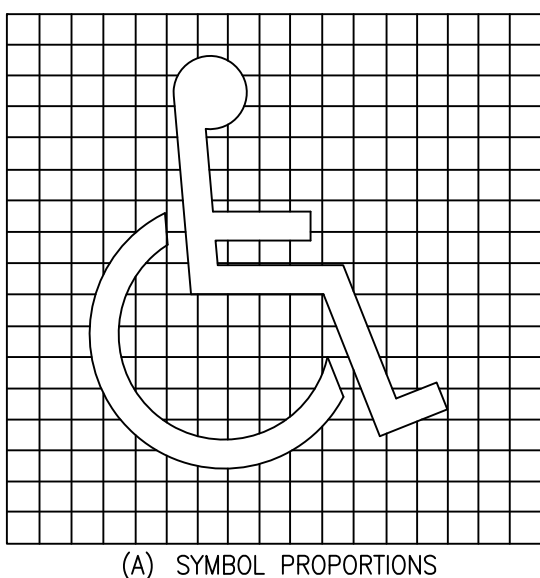
PROVIDE ADA REQUIRED BRAILLE AND RAISED LETTERS TO CONFORM WITH SECTION 11178.5.9. MOUNT BRAILLE SIGNAGE ON LATCH SIDE OF DOORS AT A MOUNTING HEIGHT



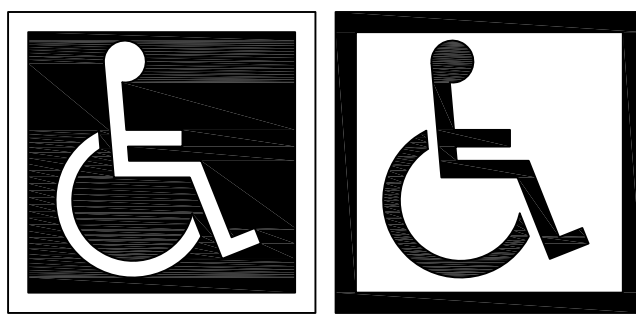
NOTE:
SIGN TO BE CIRCLE AND TRIANGLE SUPERIMPOSED
SIGNAGE COLOR TO BE BLUE BACKGROUND WITH WHITE FIGURES

16 ACCESSIBLE SIGNAGE

NTS



(A) SYMBOL PROPORTIONS

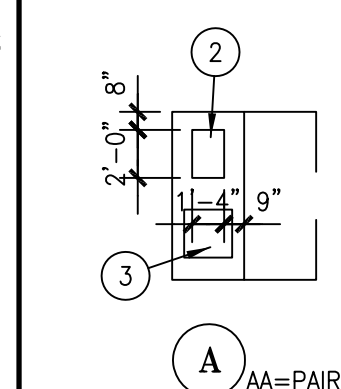


(B) DISPLAY CONDITIONS

12 INTN'L SYMBOL OF ACCESS

NTS

NUMBER	LOCATION (ROOM)	SIZE	TYPE	THICKNESS	CORE	FRAME	HARDWARE	PANIC HARDWARE	DETAILS		
									HEAD/JAMB	THRESHOLD	REMARKS
1	108	EXISTING	EXIST	EXIST	EXIST		100				5
2	117	3'-0"X7'-0"	A	1 3/4"	WD	WD	101		7/A4.1		1
3	109	EXISTING	EXIST	EXIST	EXIST	EXIST	100				4,5
4	112										1
5	109										4,5
6	115										5
7	118										4,5
8	122										4,5
9	121										4,5
10	122										4,5
11	125										4,5
12	127										4,5
13	127										1
14	117	3'-0"X7'-0"	A	1 3/4"	WD	WD	102		7/A4.1		6
15	109				HM	HM	103		3/A4.1	4/A4.1	4,6,7
16	109				HM	HM	103		3/A4.1	4/A4.1	4,6,7
17	116				WD	WD	101		7/A4.1		6
18	116						102				6
19	113						104				1
20	112						105				6
21	109						106				6
22	114						107				1
23	115						106				6
24	118						108				6
25	120						101				6
26	120						109				6
27	122						108				1
28	123						102				1
29	122						108				6
30	122	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
31	103	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
32	106	3'-0"X7'-0"	A	1 3/4"	WD	WD	110		7/A4.1		
33	106						110				1
34	126						110				
35	101						111				
36	104						111				
37	104	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
38	106	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
39	106	3'-0"X7'-0"	A	1 3/4"	WD	WD	111		7/A4.1		
40	102	3'-0"X7'-0"	A	1 3/4"	WD	WD	111		7/A4.1		
41	201	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
42	202	EXISTING	EXIST	EXIST	EXIST	EXIST	100				1
43	203	3'-0"X7'-0"	A	1 3/4"	WD	WD	100		7/A4.1		5
44	205						110				1
45	206						113				1
46	203						110				
47	203						100				5
48	208						112				1

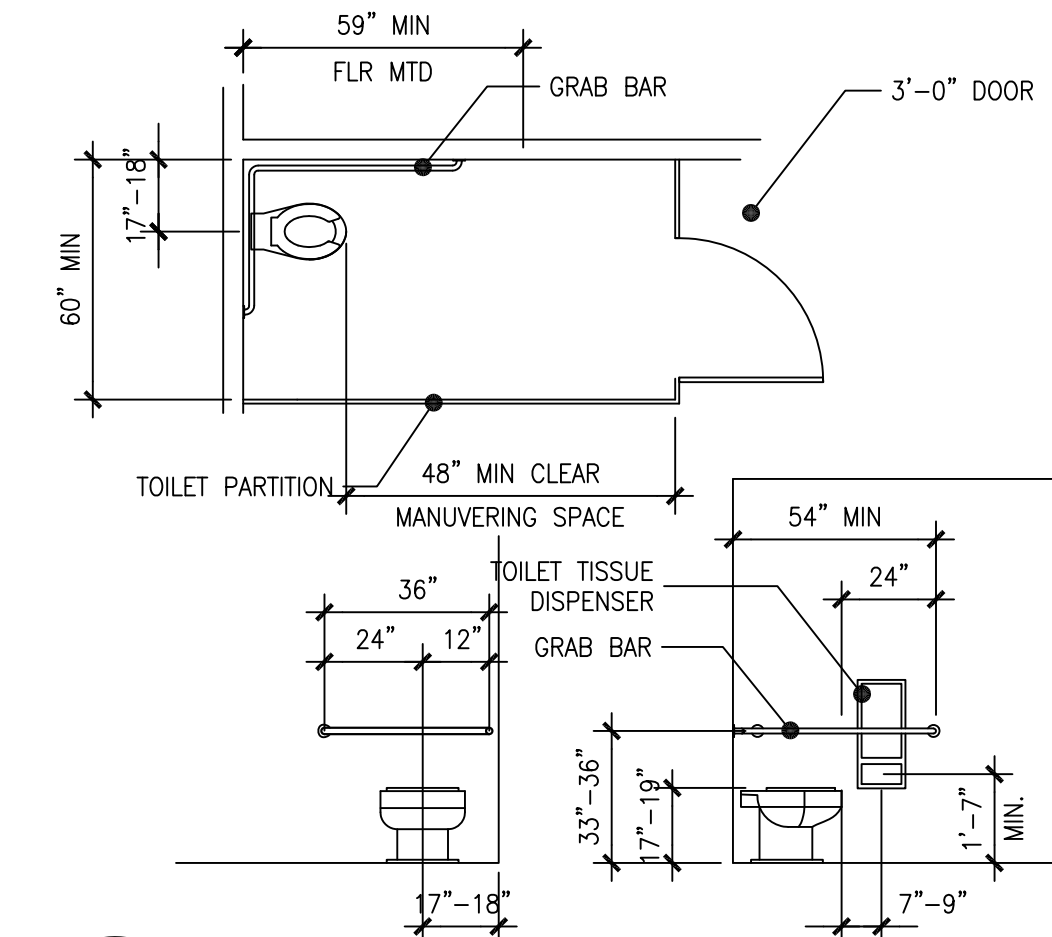


ABBREVIATIONS:
WD: SOLID WOOD CORE, WITH VENEER
HM: HOLLOW METAL

- DOOR SCHEDULE NOTES:
- EXISTING DOOR - PROTECT DOOR IN PLACE. REMOVE AND REPLACE HARDWARE AS SCHEDULED IN DOOR HARDWARE SCHEDULE SPECIFICATION SECTION 08 7100
 - LITE IN DOOR WHERE NOTED
 - LOUVER IN DOOR WHERE NOTED
 - PROVIDE TACTILE SIGANCE PER DETAIL 20/A3.0
 - (E) DOOR PROTECT IN PLACE - NO WORK
 - (E) DOOR AND FRAME TO BE REMOVED AND REPLACED
 - PROVIDE 60 MINUTE DOOR AND FRAME

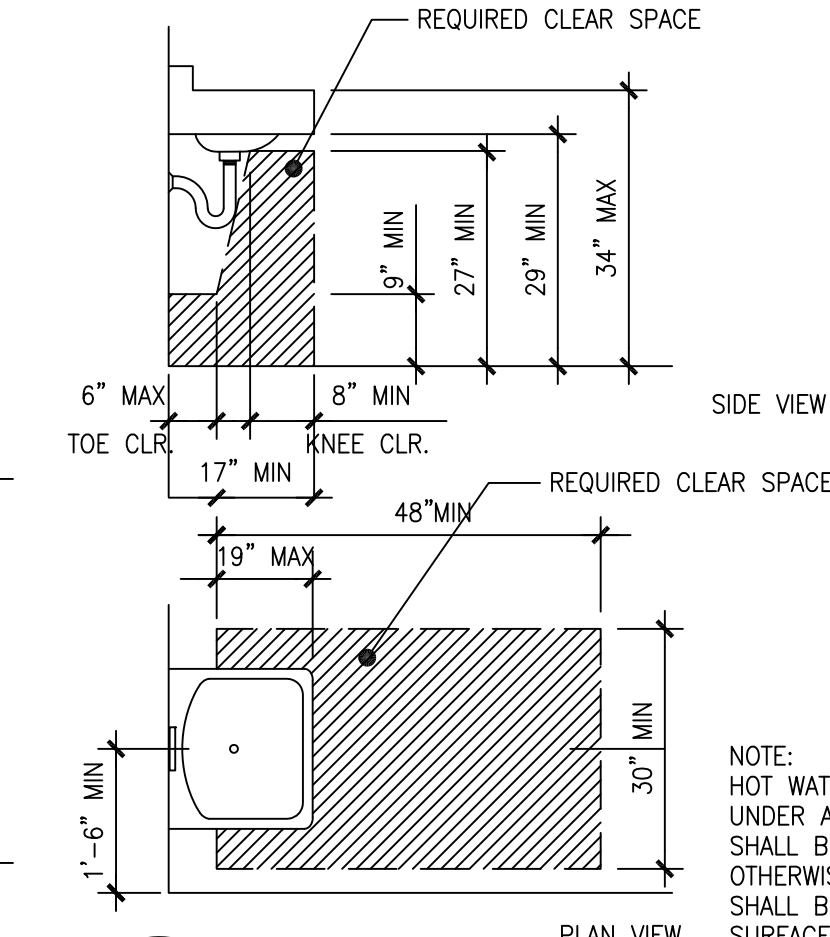
DOOR SCHEDULE

SCALE: 1/8"=1'-0"



8 ACCESSIBLE TOILET STALL

NTS



4 TYPICAL ACCESSIBLE LAVATORY

NTS

NOTE:
HOT WATER AND DRAIN PIPES
UNDER ACCESSIBLE LAVATORIES
SHALL BE INSULATED OR
OTHERWISE COVERED. THERE
SHALL BE NO SHARP OR ABRASIVE
SURFACES UNDER LAVATORIES

RM ARCHITECTURE

CONSTRUCTION MANAGEMENT
RUBIO MEDINA ARCHITECT
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ALL LICENSED ARCHITECTS
RUBIO MEDINA ARCHITECT
11.11.18
Professional Seal

STATE OF CALIFORNIA

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER

1 SONYHILL
IRVINE, CA 92620

SHEET TITLE:
ROOM AND DOOR SCHEDULE, ACCESSIBLE DETAILS

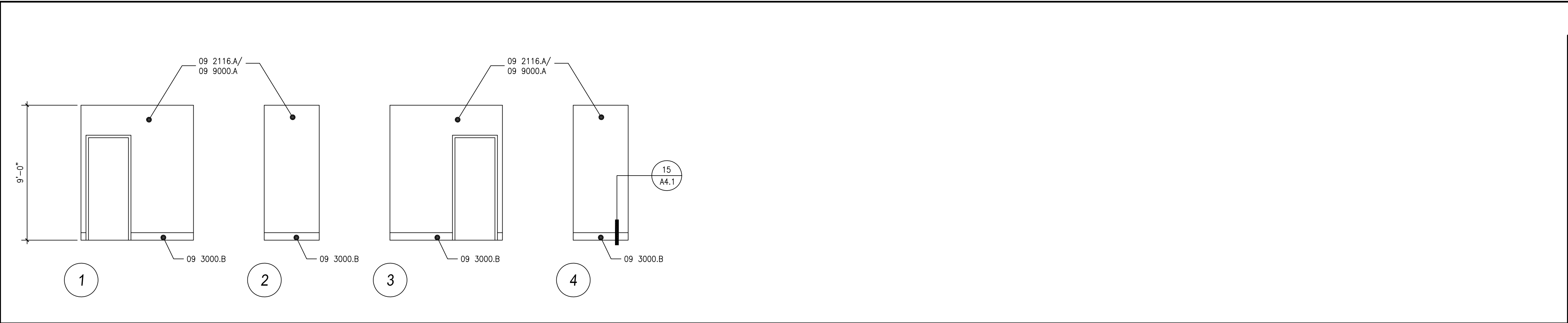
DRAWN BY:
R. MEDINA

DATE:
05.11.18

SCALE:
AS NOTED

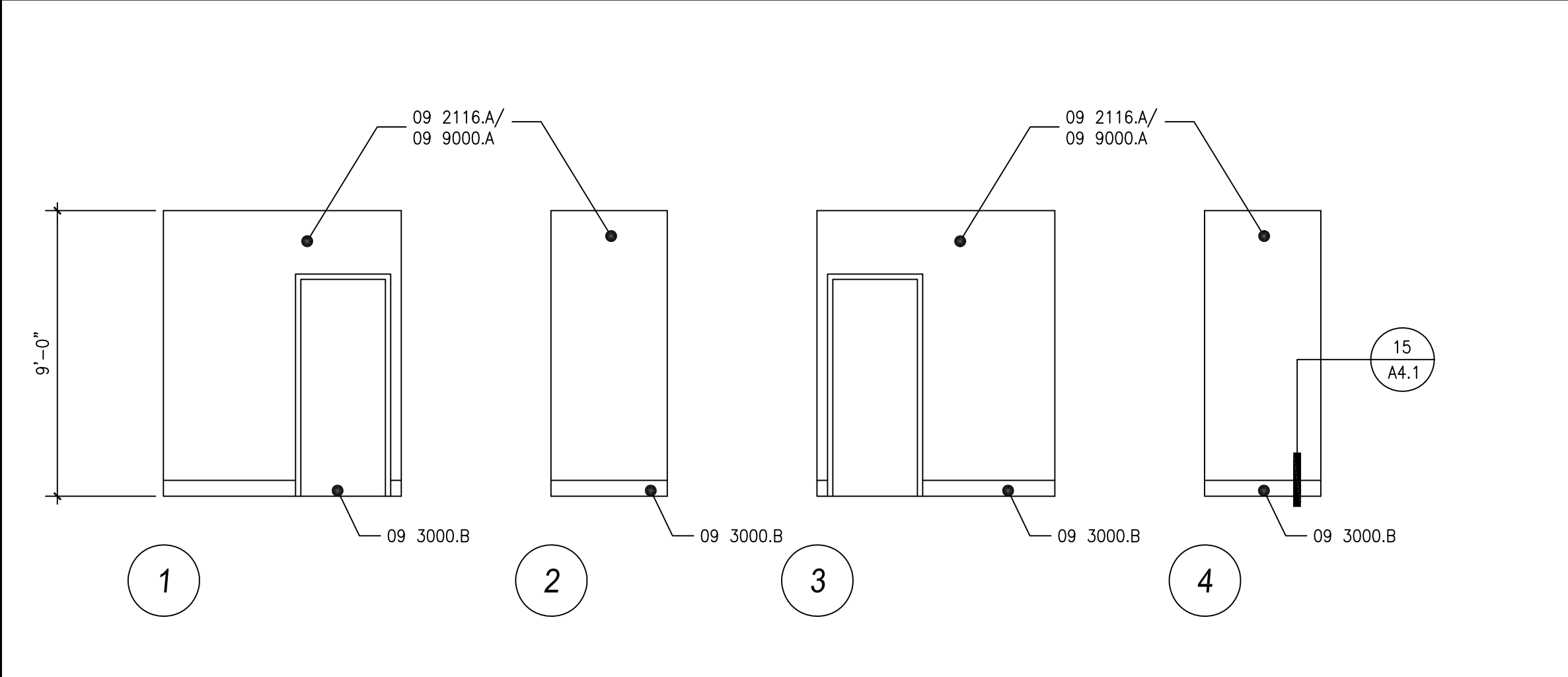
PROJECT NO:
1705

SHEET:
A3.0



VESTIBULE (101)

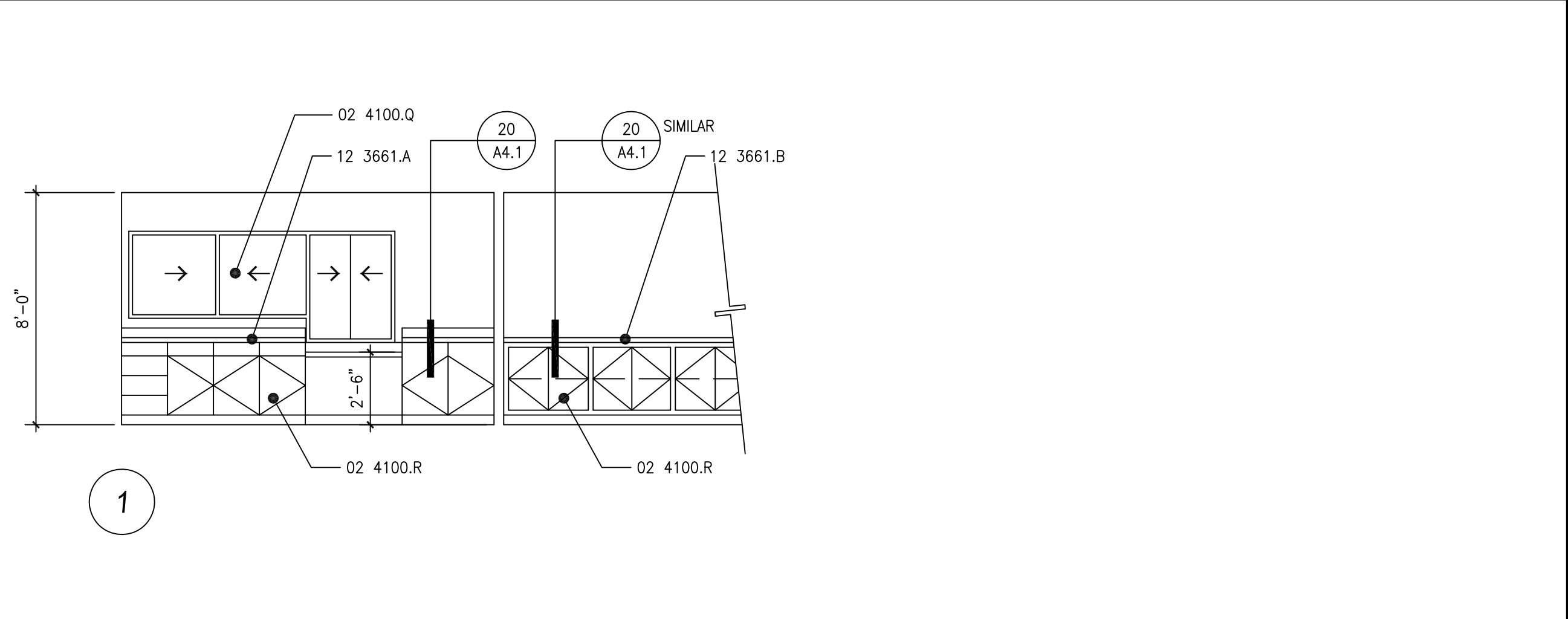
REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS



VESTIBULE (102)

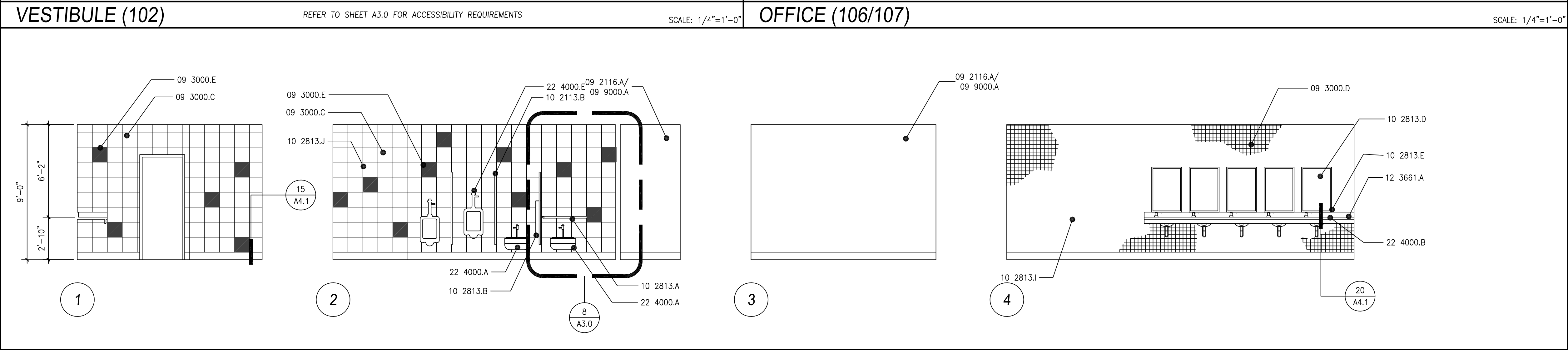
REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS

SCALE: 1/4"=1'-0"



OFFICE (106/107)

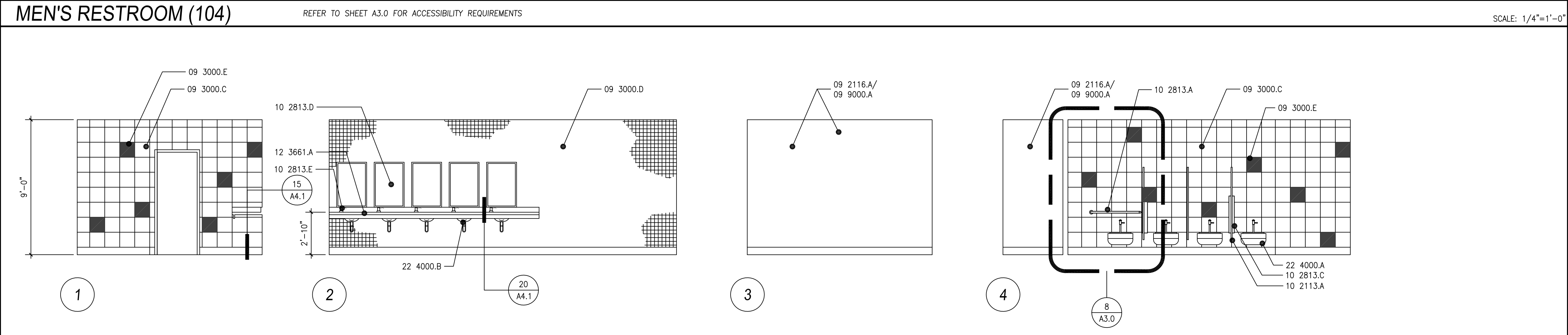
SCALE: 1/4"=1'-0"



MEN'S RESTROOM (104)

REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS

SCALE: 1/4"=1'-0"



WOMEN'S RESTROOM (105)

REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS

SCALE: 1/32"=1'-0"

CONSTRUCTION NOTES

- 09 3000 CERAMIC TILE
09 3000.A MARBLE THRESHOLD - REFER TO DETAIL 16/A4.1
09 3000.B CERAMIC TILE COVE BASE
09 3000.C CERAMIC TILE WALL TILE (FIELD TILE)
09 3000.D CERAMIC TILE WALL TILE (ACCENT TILE)
09 3000.E CERAMIC TILE ACCENT COLOR 1
- 09 9000 PAINTING AND COATINGS
09 9000.A PATCH, REPAIR, AND PAINT EXISTING GYPSUM BOARD SURFACE
- 09 2116 GYPSUM BOARD ASSEMBLIES
09 2116.A GYPSUM BOARD
- 10 2113 TOILET PARTITIONS
10 2113.A NEW TOILET PARTITION
10 2113.B NEW URINAL SCREEN
- 10 2813 TOILET, BATH, AND LAUNDRY ACCESSORIES
10 2813 TOILET, BATH, AND LAUNDRY ACCESSORIES
10 2813.A GRAB BAR (B-6897)
10 2813.B PARTITION MOUNTED SEAT COVER DISPENSER AND TOILET TISSUE DISPENSER (B-347)
10 2813.C PARTITION MOUNTED SEAT COVER DISPENSER, TOILET TISSUE DISPENSER, AND SANITARY NAPKIN DISPOSAL (B-3571 AT ACCESSIBLE STALL, B-357 AT STANDARD STALL)
10 2813.D ANGLE FRAME MIRROR (B-XX)
10 2813.E SURFACE MOUNTED SOAP DISPENSER (B-XX)
10 2813.F RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE (B-XX)
10 2813.G RECESSED SEAT COVER DISPENSER, TOILET TISSUE DISPENSER, AND SANITARY NAPKIN DISPOSAL (B-XX)
10 2813.H RECESSED SEAT COVER DISPENSER AND TOILET TISSUE DISPENSER (B-3574)
10 2813.I SURFACE MOUNTED BABY CHANGING STATION (KB200-SS)
- 12 3661 SIMULATED STONE COUNTER TOP
12 3661.A SOLID SURFACE COUNTER TOP AND BACKSPLASH
12 3661.B SOLID SURFACE COUNTER TOP

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22 4000 PLUMBING FIXTURES
22 4000.A WATER CLOSET - REFER TO PLUMBING DRAWINGS
22 4000.B WALL HUNG SINK - REFER TO PLUMBING DRAWINGS
22 4000.C LAVATORY - REFER TO PLUMBING DRAWINGS
22 4000.D FLOOR DRAIN - REFER TO PLUMBING DRAWINGS AND DETAIL 15/A-2.2
22 4000.E URINAL - REFER TO PLUMBING DRAWINGS

RM ARCHITECTURE

CONSTRUCTION MANAGEMENT
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ALL LICENSED ARCHITECTS
RUBIO MEDINA, ARCHITECT
31.18
RENEWAL DATE

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER
11 SUNNYHILL
IRVINE, CA 92603
SHEET TITLE:
INTERIOR ELEVATIONS

DRAWN BY:
R. MEDINA

DATE:

05.11.18

SCALE:

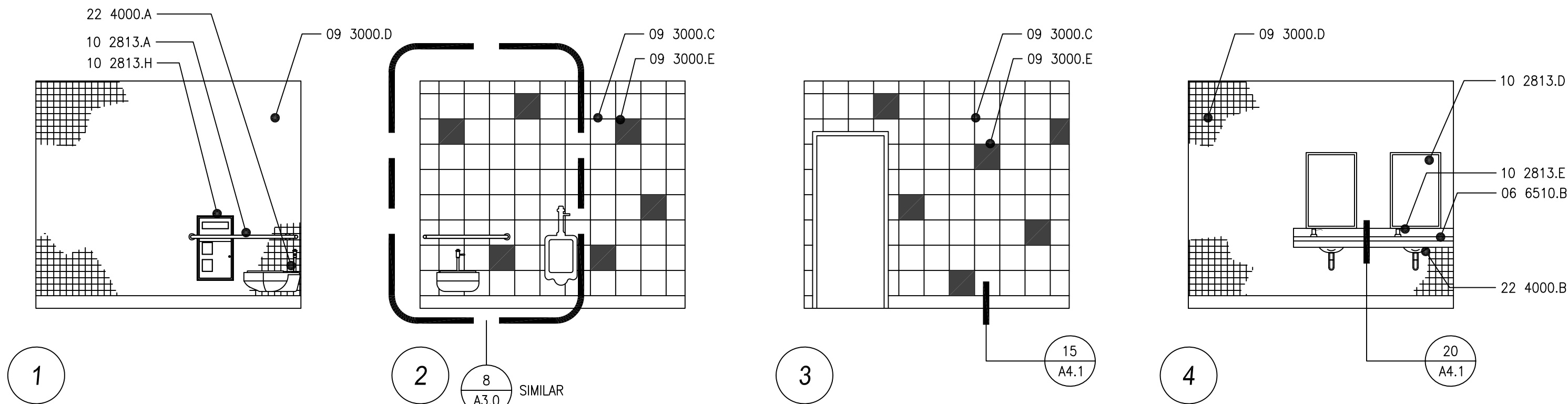
AS NOTED

PROJECT NO:

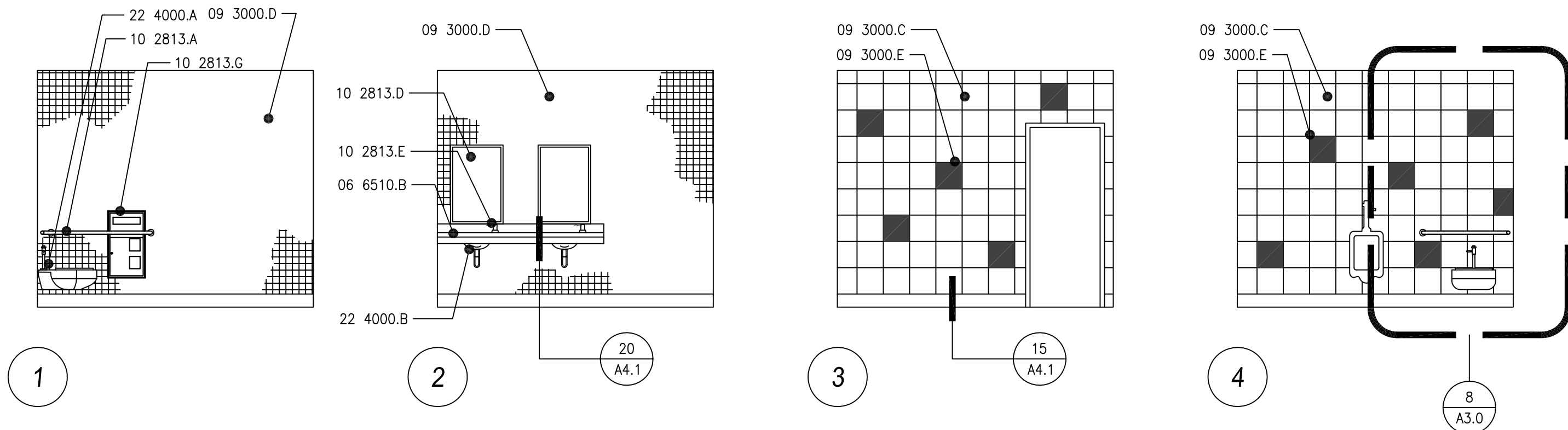
1705

SHEET:

A4.0



ALL-GENDER RESTROOM (201) REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS



ALL-GENDER RESTROOM (202) REFER TO SHEET A3.0 FOR ACCESSIBILITY REQUIREMENTS

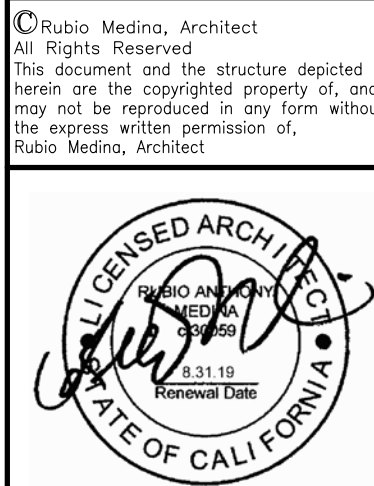
LOBBY (203)

CONSTRUCTION NOTES

- 09 3000 CERAMIC TILE
09 3000.A MARBLE THRESHOLD - REFER TO DETAIL 16/A4.1
09 3000.B CERAMIC TILE COVE BASE
09 3000.C CERAMIC TILE WALL TILE (FIELD TILE)
09 3000.D CERAMIC TILE WALL TILE (ACCENT TILE)
09 3000.E CERAMIC TILE ACCENT COLOR 1
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09 9000.A PATCH, REPAIR, AND PAINT EXISTING GYPSUM BOARD SURFACE
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10 2113.A NEW TOILET PARTITION
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22 4000.C LAVATORY - REFER TO PLUMBING DRAWINGS
22 4000.D FLOOR DRAIN - REFER TO PLUMBING DRAWINGS AND DETAIL 15/A-2.2
22 4000.E URINAL - REFER TO PLUMBING DRAWINGS



TURTLE ROCK COMMUNITY CENTER

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

1 SUNNYHILL
IRVINE, CA 92603

DRAWN BY: R. MEDINA
DATE: 05.11.18
SCALE: AS NOTED
PROJECT NO: 1705
SHEET:

A4.1

INTERIOR ELEVATIONS AND DETAILS

\\AD-KJWW.COM\KJWW\PROJECTS\2017\17001866.00\CAD-BIM FOLDERS\AUTOCAD\MPE\MPE\PO-1.DWG 5/10/2018 9:00 AM

PLUMBING NOTES		GENERAL NOTES		LEGEND			DRAWING LIST																																																							
<div>1. PROVIDE A COMPLETE PLUMBING SYSTEM FOR THOSE AREAS INDICATED ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO, FIXTURE ROUGH-INS AND UTILITY PIPING.</div> <div>2. VERIFY FIXTURE HEIGHTS PRIOR TO ROUGH-IN, SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS AND EXACT LOCATION OF PLUMBING FIXTURES.</div> <div>3. PLUMBING FIXTURES FOR DISABLED PERSONS SHALL BE MOUNTED AT REQUIRED HEIGHTS AND WITH ALL RELATED ACCESSORIES AS REQUIRED BY THE CALIFORNIA OFFICE OF THE STATE ARCHITECT AND AMERICANS WITH DISABILITIES ACT (ADA). ALL FIXTURE TRAPS, PIPING AND VALVES UNDER THE FIXTURE SHALL BE INSULATED WITH A FACTORY PERFORMED INSTALLATION.</div> <div>4. PROVIDE CHROME PLATED ANGLE STOPS ON ALL PLUMBING FIXTURES AND ISOLATION VALVES ON ALL EQUIPMENT.</div> <div>5. SECURE ESCUTCHEONS TIGHT TO WALL, OR SPUD.</div> <div>6. SECURE WATER CLOSET BOLT CAPS TO BOLT HEADS WITH SILICONE SEALANT.</div> <div>7. COORDINATE INSTALLATION OF WATER CLOSET FLUSH VALVES WITH GRAB BAR AT ACCESSIBLE LOCATIONS. IF REQUIRED PROVIDE OFFSET SPUD CONNECTION AT NO ADDITIONAL COST.</div> <div>8. SHUT-OFF VALVES, WATER HAMMER ARRESTORS AND TRAP PRIMERS SHALL BE ACCESSIBLE VIA WALL, CEILING ACCESS PANELS OR REMOVABLE CEILING TILES.</div> <div>9. FAUCETS, SERVICE STOPS AND SUPPLIES SHALL HAVE FIELD SERVICEABLE AND REPAIRABLE COMPRESSION CARTRIDGE.</div> <div>10. MOUNTING HARDWARE MUST BE OF METAL OR STEEL. NO PLASTIC HARDWARE TO BE USED.</div> <div>11. DRINKING FOUNTAINS SHALL HAVE CLEANOUTS.</div> <div>12. CLEANOUTS SHALL BE ACCESSIBLE. CLEANOUTS SHALL BE INSTALLED PER LATEST EDITION OF CALIFORNIA PLUMBING CODE SECTIONS 707 AND 719.</div> <div>13. PROVIDE WALL CLEANOUTS IN FINISHED AREAS WITH ACCESS COVERS. THE COLOR AND FINISH TYPE SHALL BE COORDINATED AND APPROVED BY THE ARCHITECT.</div> <div>14. A MINIMUM 1/2" CLEARANCE SHALL BE PROVIDED AROUND PIPES AT ALL PENETRATIONS THROUGH WALLS AND ROOF. THE GAP SHALL BE PACKED TIGHTLY WITH LOOSE, LIGHTWEIGHT INSULATION THROUGH NON RATED WALLS, AND APPROVED U.L. LISTED FIRE RATED MATERIAL RATED WALLS TO MATCH WALL RATING.</div> <div>15. PROVIDE PIPING ISOLATION ON STUD WALL 1/4" FELT OR NEOPRENE ISOLATION, OR APPROVED SMWF ISOLATOR.</div> <div>16. BURRED ENDS OF (WATER AND GAS) PIPING AND TUBING SHALL BE REAMED TO THE FULL BORE OF THE PIPE OR TUBE AND ALL CHIPS SHALL BE REMOVED (SEE CALIFORNIA PLUMBING CODE, 2013 EDITION). ADDITIONALLY, TOOLS USED IN CUTTING OR REAMING SHALL BE KEPT FREE FROM OIL OR GREASE AND WHERE SUCH CONTAMINATION HAS OCCURRED, THE ITEMS AFFECTED SHALL BE REWORKED AND RINSED.</div> <div>17. ROUGH-INS, CONNECTIONS AND TERMINATION OF PLUMBING WORK SHALL BE SEQUENCED IN COORDINATION WITH THE PROJECT SCHEDULE AND THE OWNERS OTHER CONTRACTORS AND VENDORS.</div> <div>18. DURING CONSTRUCTION, PROVIDE MECHANICAL PLUGS IN OPEN DRAINS TO PREVENT DAMAGE TO LOWER FLOORS. ALL WATER PIPING LOCATED ABOVE CEILING, REQUIRING TEMPORARY OR PERMANENT CAPPED CONNECTIONS, SHALL BE PROVIDED WITH LINE-SIZE SHUT-OFF VALVES.</div>		<div>1. WORK AND MATERIAL SHALL COMPLY WITH THE LATEST; CALIFORNIA BUILDING CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ADMINISTRATIVE CODE TITLE 24, CALIFORNIA STATE FIRE MARSHAL, APPLICABLE LOCAL CODES, AMENDMENTS AND REQUIREMENTS. ALL APPROVED ASTM, ACI, AND AISC DESIGNATIONS SHALL BE AMENDED TO MOST RECENT DATE.</div> <div>2. WORK AND MATERIALS INDICATED ON THE THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.</div> <div>3. EQUIPMENT SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.</div> <div>4. PRIOR TO BIDDING, BECOME FAMILIAR WITH ALL PROJECT DOCUMENTS AND SURVEY THE SITE TO BECOME AWARE EXISTING CONDITIONS AND NOTIFY THE OWNER IN WRITING ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN WITHIN THE DRAWINGS. NO EXTRA COMPENSATION SHALL BE AWARDED FOR FAILURE TO ALLOW FOR ANY EXISTING CONDITIONS READILY VISIBLE THAT EFFECT THEIR WORK. SUBMISSION OF A PROPOSAL WILL BE CONSIDERED EVIDENCE OF THE FACT THAT THE CONTRACTOR IS FULLY AWARE OF THESE CONDITION AND IS ABLE TO COMPLETE ALL WORK REQUIRED.</div> <div>5. DRAWINGS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT AND INDICATE THE FINISHED REQUIREMENTS FOR THE PLUMBING SYSTEMS. IF NECESSARY, THE CONTRACTOR SHALL MAKE ANY MINOR ADJUSTMENTS TO THE SYSTEM OR ITS APPURTENANCES TO AVOID ANY CONFLICTS WITH BUILDING STRUCTURE OR THE WORK OF OTHER TRADES. IF DUE TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR STRUCTURAL INTERFERENCE, THE RETENTION OF EXISTING FACILITIES, OR FOR OTHER REASONS, THE CONTRACTOR MAY DESIRE TO INSTALL THE WORK IN A MANNER DIFFERENT FORM THAT SHOWN. SUCH CHANGES SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO IMPLEMENTATION.</div> <div>6. LOCATE EXISTING UTILITIES WHETHER SHOWN WITHIN THE DRAWINGS OR NOT AND PROTECT THEM FROM ANY DAMAGE. PAY FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY THE WORK.</div> <div>7. COORDINATE WITH OTHER TRADES TO ENSURE THAT THE PLUMBING SYSTEMS ARE FULLY COORDINATED.</div> <div>8. WHERE THERE IS A DISCREPANCY BETWEEN THE DRAWINGS AND THE PROJECT SPECIFICATIONS OR BUILDING STANDARDS, THE ARCHITECTS SHALL BE NOTIFIED OF THIS DISCREPANCY PRIOR TO PROCEEDING WITH THE WORK.</div> <div>9. OBTAIN AND PAY FOR ALL PERMITS, LICENSES, AND FEES REQUIRED FROM THE AUTHORITY HAVING JURISDICTION AND UTILITY SERVICE PROVIDERS.</div> <div>10. IF ANY EQUIPMENT OR MATERIAL FOR WHICH THE CONTRACTOR IN PLANNING ON UTILIZING IS DIFFERENT FROM THAT SPECIFIED SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL. THE SUBMITTAL SHALL INDICATE THAT THE SUBMITTED IS A SUBSTITUTION AND THE CREDIT DUE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF ALL OTHER CHANGES RESULTING FROM THE SUBSTITUTION INCLUDING CHANGES IN THE WORK OF OTHER TRADES NECESSARY TO ACCOMMODATE THE REQUESTED SUBSTITUTION.</div> <div>11. UPON COMPLETION OF THE WORK, AUTOCAD COPIES OF THE CONTRACT DRAWINGS SHALL OBTAINED FROM THE ARCHITECT, AND ALL CHANGES AS NOTED ON THE RECORD SET TO INCLUDE RFI'S SHALL BE INCORPORATED THEREON. THIS DOCUMENT WILL SERVE AS THE "AS-BUILT" RECORD SET. USE AUTOCAD VERSION 2008 OR LATER.</div> <div>12. APPROVED PLANS SHALL BE KEPT IN A SECURE PLACE AND SHALL NOT BE USED BY WORKMEN. PROVIDE ALL SUBCONTRACTORS' WITH FULL CONSTRUCTION SETS REFLECTING THE SAME INFORMATION. MAINTAIN, IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS, ON PREMISES AT ALL TIMES, UNDER CARE OF THE JOB SUPERINTENDENT.</div> <div>13. DON'T TAKE SCALE MEASUREMENTS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE. DETAIL DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.</div> <div>14. PROVIDE AND INSTALL ANY NECESSARY BLOCKING, BACKING, FURRING, AND FRAMING FOR ELECTRICAL, PLUMBING, EQUIPMENT, FIXTURES, AND OTHER MISCELLANEOUS ITEMS REQUIRING SAME.</div> <div>15. CONSTRUCTION MEANS AND METHODS OF WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR. MAINTAIN STRUCTURAL INTEGRITY OF WORK UNTIL WORK IS COMPLETE.</div> <div>16. REPLACE OR REMEDY WORK OF ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP WHICH APPEARS WITHIN ONE YEAR AFTER THE ACCEPTANCE OF THE WORK UNDER THIS CONTRACT, EXCEPT AS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.</div> <div>17. PATCH AND REPAIR ALL EXISTING FINISHES THAT ARE AFFECTED BY THE WORK.</div> <div>18. PAINT EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY THE ARCHITECT.</div>		<table><tr><th>SYMBOL</th><th>ABBREV.</th><th>DESCRIPTION</th></tr><tr><td></td><td>S OR W</td><td>SEWER OR WASTE BELOW GRADE</td></tr><tr><td></td><td>V</td><td>SANITARY VENT</td></tr><tr><td></td><td>CW</td><td>COLD WATER</td></tr><tr><td></td><td>E</td><td>EXISTING</td></tr><tr><td></td><td>(E)S OR (E)W</td><td>(E) SEWER OR WASTE</td></tr><tr><td></td><td>(E)V</td><td>(E) SANITARY VENT</td></tr><tr><td></td><td>(E)CW</td><td>(E) COLD WATER</td></tr><tr><td></td><td>WCO</td><td>WALL CLEANOUT</td></tr><tr><td></td><td>WHA</td><td>WATER HAMMER ARRESTOR</td></tr><tr><td></td><td>POD</td><td>POINT OF DISCONNECTION</td></tr><tr><td></td><td>POC</td><td>POINT OF CONNECTION</td></tr><tr><td></td><td></td><td>PLUMBING FIXTURE IDENTIFICATION</td></tr><tr><td></td><td></td><td>PIPING, FIXTURE AND/OR EQUIPMENT TO BE REMOVED</td></tr></table>			SYMBOL	ABBREV.	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	(E)V	(E) SANITARY VENT																																																												
	(E)CW	(E) COLD WATER																																																												
	WCO	WALL CLEANOUT																																																												
	WHA	WATER HAMMER ARRESTOR																																																												
	POD	POINT OF DISCONNECTION																																																												
	POC	POINT OF CONNECTION																																																												
		PLUMBING FIXTURE IDENTIFICATION																																																												
		PIPING, FIXTURE AND/OR EQUIPMENT TO BE REMOVED																																																												
DWG. NO.	DESCRIPTION																																																													
P0.1	GENERAL NOTES, LEGEND AND DRAWING LIST																																																													
P1.1	SITE PLAN																																																													
P2.1	FLOOR PLAN																																																													
P3.1	ENLARGED PLANS																																																													
P4.1	DETAILS																																																													
							APPLICABLE CODES																																																							
							<ul style="list-style-type: none">2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12016 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2 (2015 INTERNATIONAL BUILDING CODE (IBC) W/ 2016 CALIFORNIA AMENDMENTS)2016 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2014 NATIONAL ELECTRICAL CODE (NEC) W/ 2016 CALIFORNIA AMENDMENTS)2016 CALIFORNIA MECHANICAL CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4 (2015 UNIFORM MECHANICAL CODE (UMC) W/ 2016 CALIFORNIA AMENDMENTS)2016 CALIFORNIA PLUMBING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5 (2015 UNIFORM PLUMBING CODE (UPC) W/ 2016 CALIFORNIA AMENDMENTS)2016 CALIFORNIA ENERGY EFFICIENCY STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 62016 CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 (2015 INTERNATIONAL FIRE CODE (IFC) W/ 2016 CALIFORNIA AMENDMENTS)2016 CALIFORNIA EXISTING BUILDING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART10 (2012 INTERNATIONAL EXISTING BUILDING CODE (IEBC)2016 CALIFORNIA REFERENCED STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12AMERICANS WITH DISABILITIES ACT (ADA) TITLE II – ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO–DATECALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA STATE ACCESSIBILITY STANDARDS CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19																																																							

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REGISTERED PROFESSIONAL ENGINEER

DESIGNER

39688

Exp. 12/31/17

MECHANICAL

STATE OF CALIFORNIA

IMEG

ITG

901 VA RENDONTE

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ONTARIO, CA 91764

Job Number: 17001965.00

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EQUIPMENT SCHEDULE		
SYMBOL	DESCRIPTION	REMARKS
	ELECTRIC WATER HEATER	RHEEM ELECTRIC TANK TYPE WATER HEATER, MODEL NO. 81VP SERIES, 120 VOLT, SINGLE PHASE @ 2000KW POWER INPUT. INSTALL BELOW COUNTER COMPLETE WITH T&P RELIEF VALVE AND FLOOR SINK
	WATER HAMMER ARRESTOR	PRECISION PLUMBING PRODUCTS. SC OR SWA SERIES. NOTE: INSTALL AT EACH PLUMBING FIXTURE OR BATTERY OF PLUMBING FIXTURES. INSTALL ON BOTH HOT AND COLD WATER BRANCH LINES IN AN UP RIGHT POSITION AS CLOSE AS POSSIBLE TO THE VALVE OR VALVES BEING SERVED. SIZE AND LOCATION PER P.D.I. STANDARD WH-201.
	TRAP PRIMER	PRECISION PLUMBING PRODUCTS "PPP" MODEL #P2-500 AND DISTRIBUTION BOX AS REQUIRED FOR MULTIPLE FLOOR DRAIN APPLICATIONS. TRAP PRIMER SHALL BE CONSTRUCTED OF CORROSION RESISTANT BRASS. PROVIDE AND INSTALL 1/2" COPPER PIPE FROM UNIT TO FLOOR DRAIN, ISOLATION VALVE AND ACCESS PANEL.

PIPE MATERIAL SCHEDULE						
SERVICE	(CW)(HW)	MATERIAL				
		ABV. GR.	BEL. GR.	CAST IRON PIPE / SERVICE	COPPER TYPE FITTINGS ASME B16.18	COPPER TYPE FITTINGS ASME B16.18
WATER						
WASTE/SOIL AND VENT						

PLUMBING FIXTURE SCHEDULE						
SYMBOL	DESCRIPTION	W	TRAP	V	CW	HW
	WATER CLOSET (ADULT ACCESSIBLE)	4"	INT.	2"	1 1/2"	–
	WATER CLOSET (ADULT STANDARD)	4"	INT.	2"	1 1/2"	–
	URINAL (ADULT ACCESSIBLE)	2"	INT.	2"	3/4"	–
	URINAL (ADULT STANDARD)	2"	INT.	2"	3/4"	–
	LAVATORY (STAFF ACCESSIBLE)	2"	1 1/4"– 1 1/2"	2"	1/2"	1/2"
	DRINKING FOUNTAIN HI–LOW (ACCESSIBLE)	2"	1 1/4"– 1 1/2"	2"	1/2"	–
	DRINKING FOUNTAIN HI–LOW (ACCESSIBLE)	2"	1 1/4"– 1 1/2"	2"	1/2"	–
	FLOOR SINK, HALF GRATE	2"	2"	2"	3/4" TP	–

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JAN NUMBER 17001866.00

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:
TURTLE ROCK COMMUNITY CENTER
SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
GENERAL NOTES, LEGEND AND DRAWING LIST

DRAWN BY:
TL

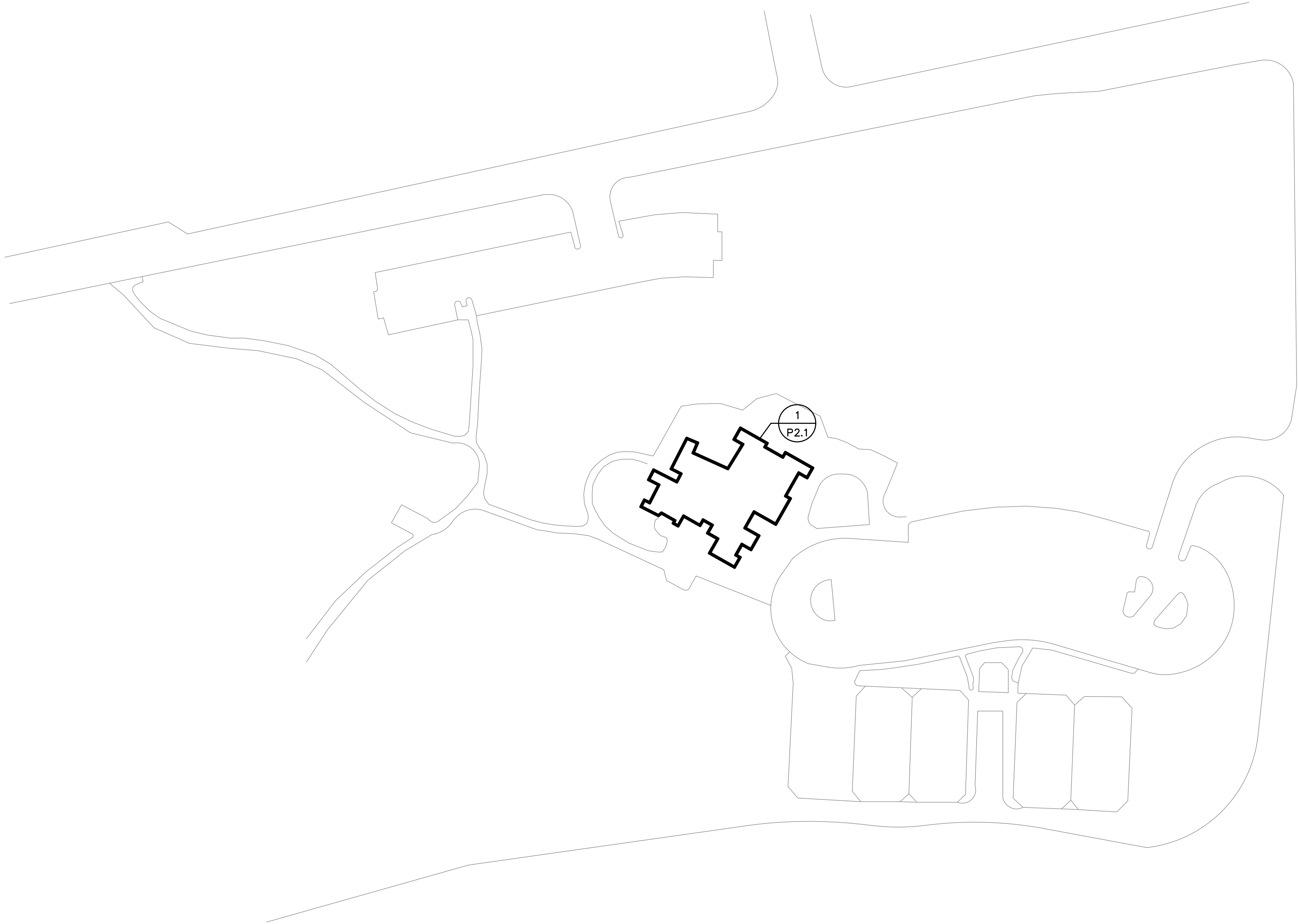
DATE:
05.11.18

SCALE:
AS NOTED

PROJECT NO:
1705

SHEET:
P0.1

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SITE PLAN

1"=40'-0"

1

KEY NOTES

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:

SITE PLAN

DRAWN BY:

TL

DATE:

05.11.18

SCALE:

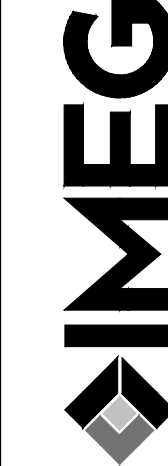
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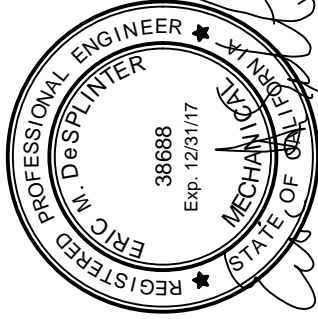
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SHEET:

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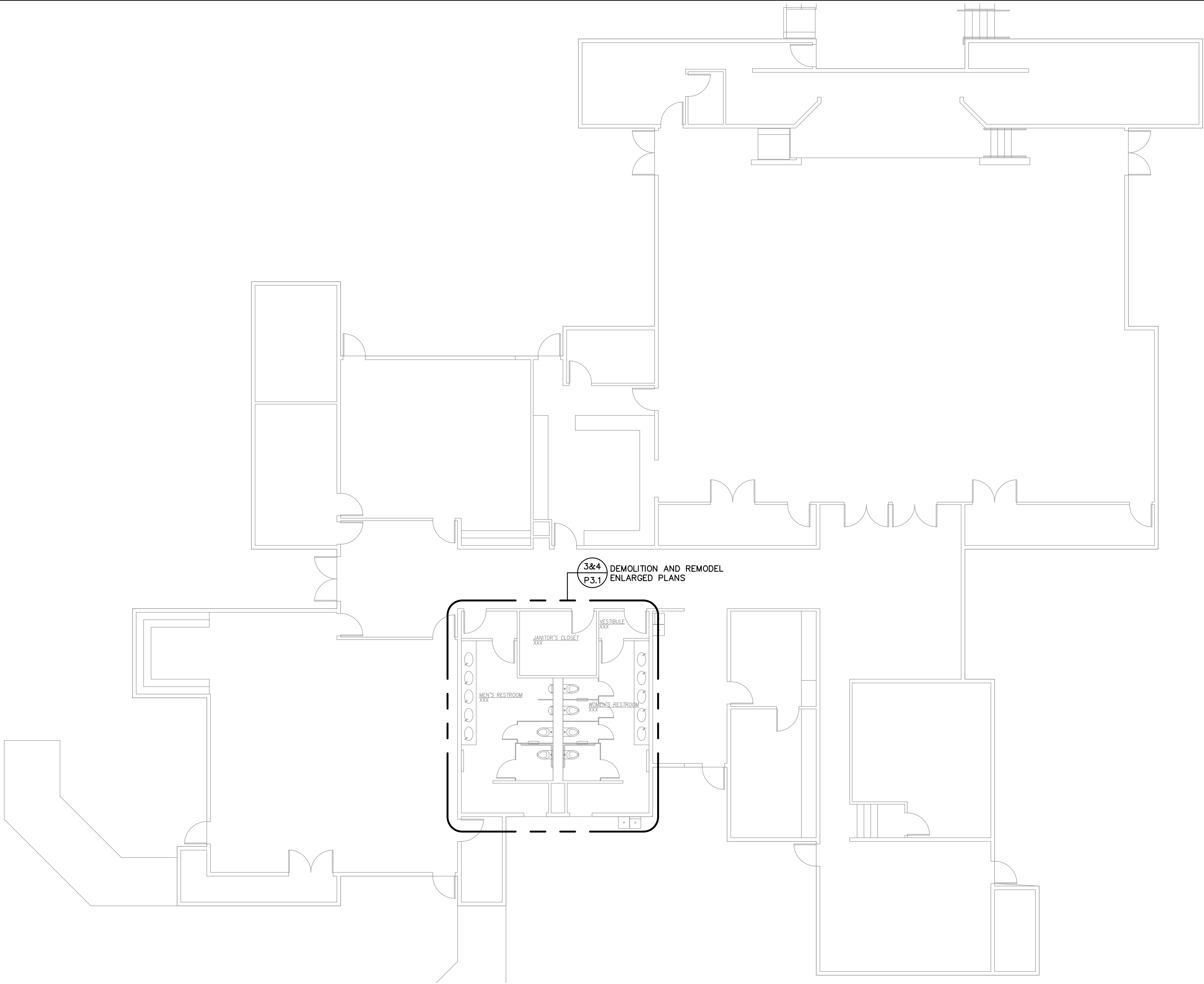


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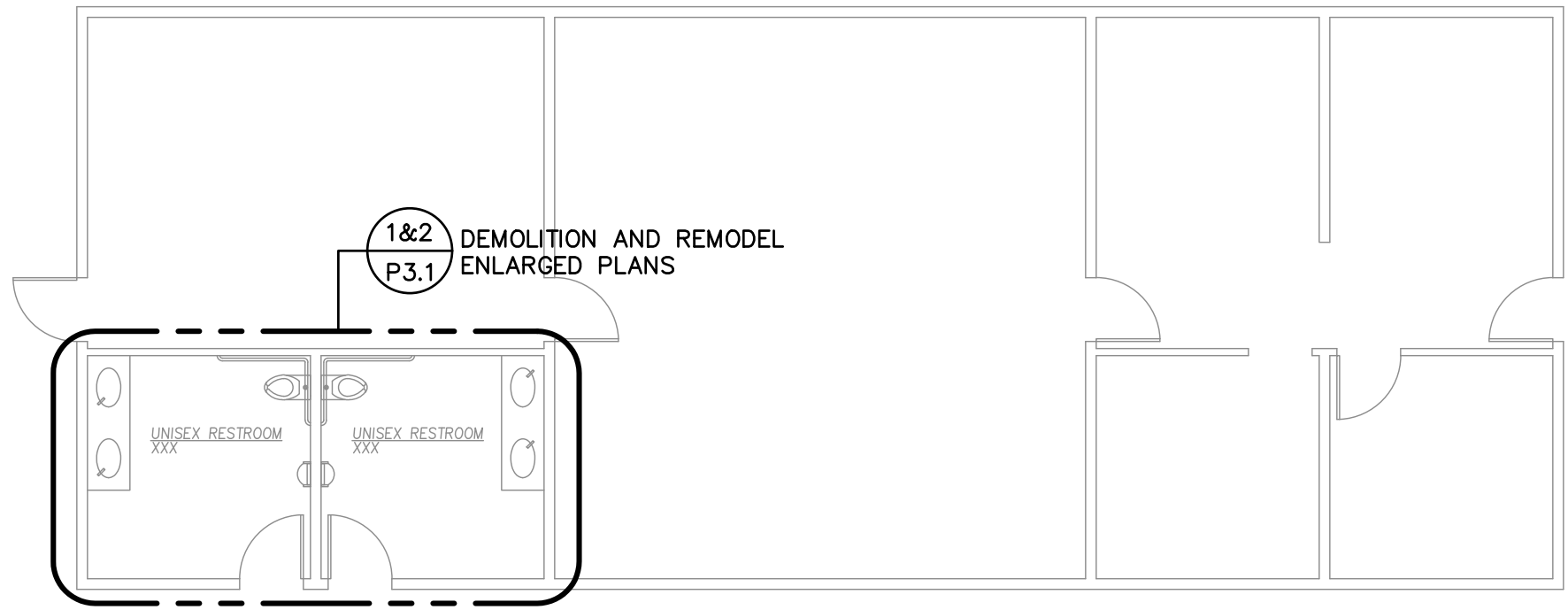
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COMMUNITY CENTER - FLOOR PLAN

1/8"=1'-0"

1



NATURE CENTER - FLOOR PLAN

1/8"=1'-0"

2

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
FLOOR PLAN

DRAWN BY:

TL

DATE:

05.11.18

SCALE:

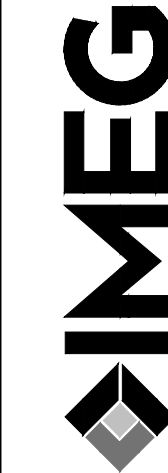
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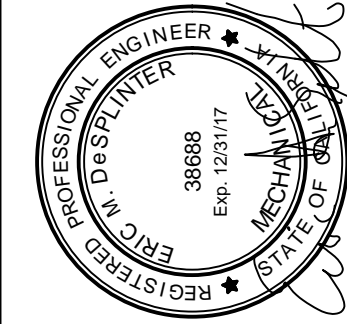
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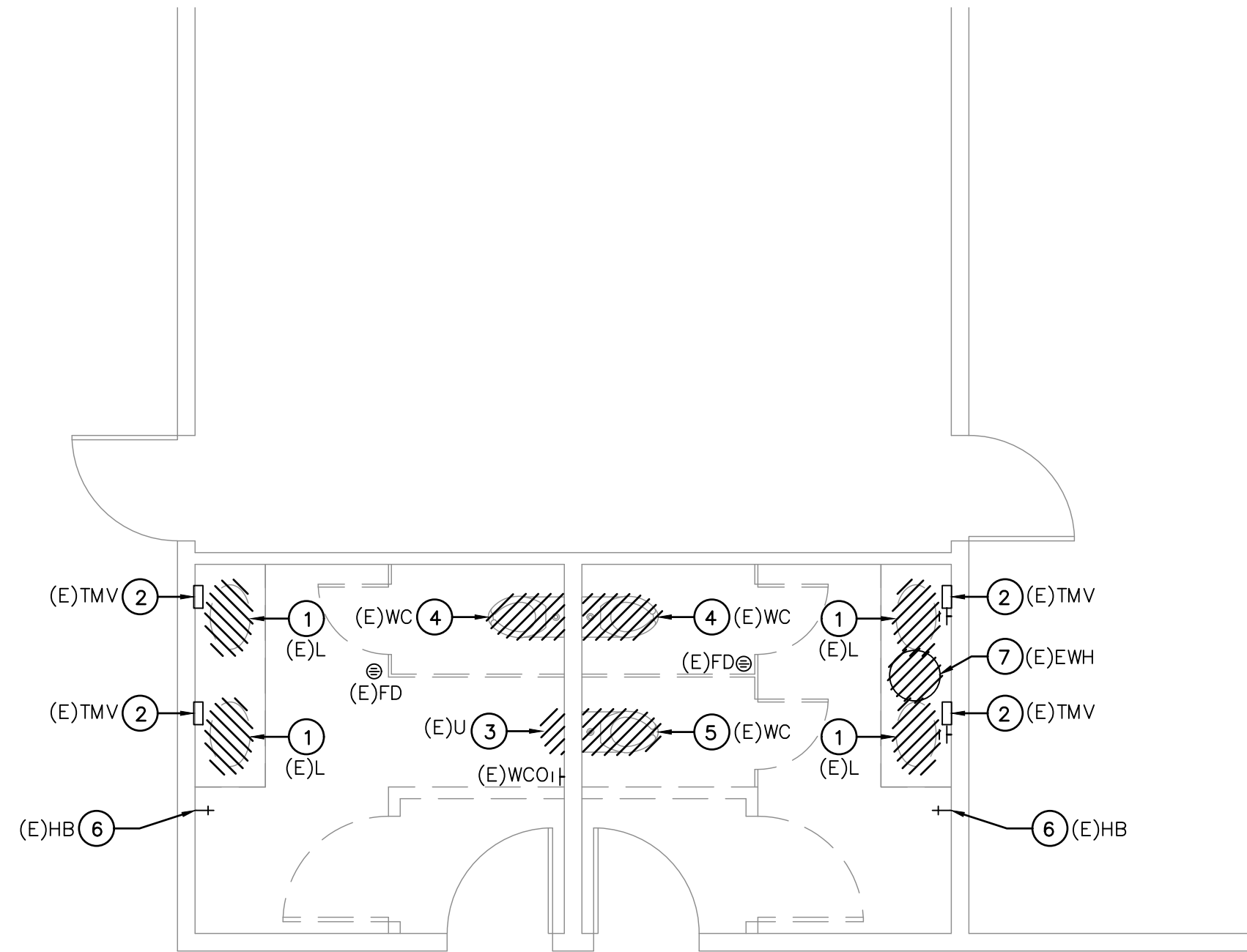
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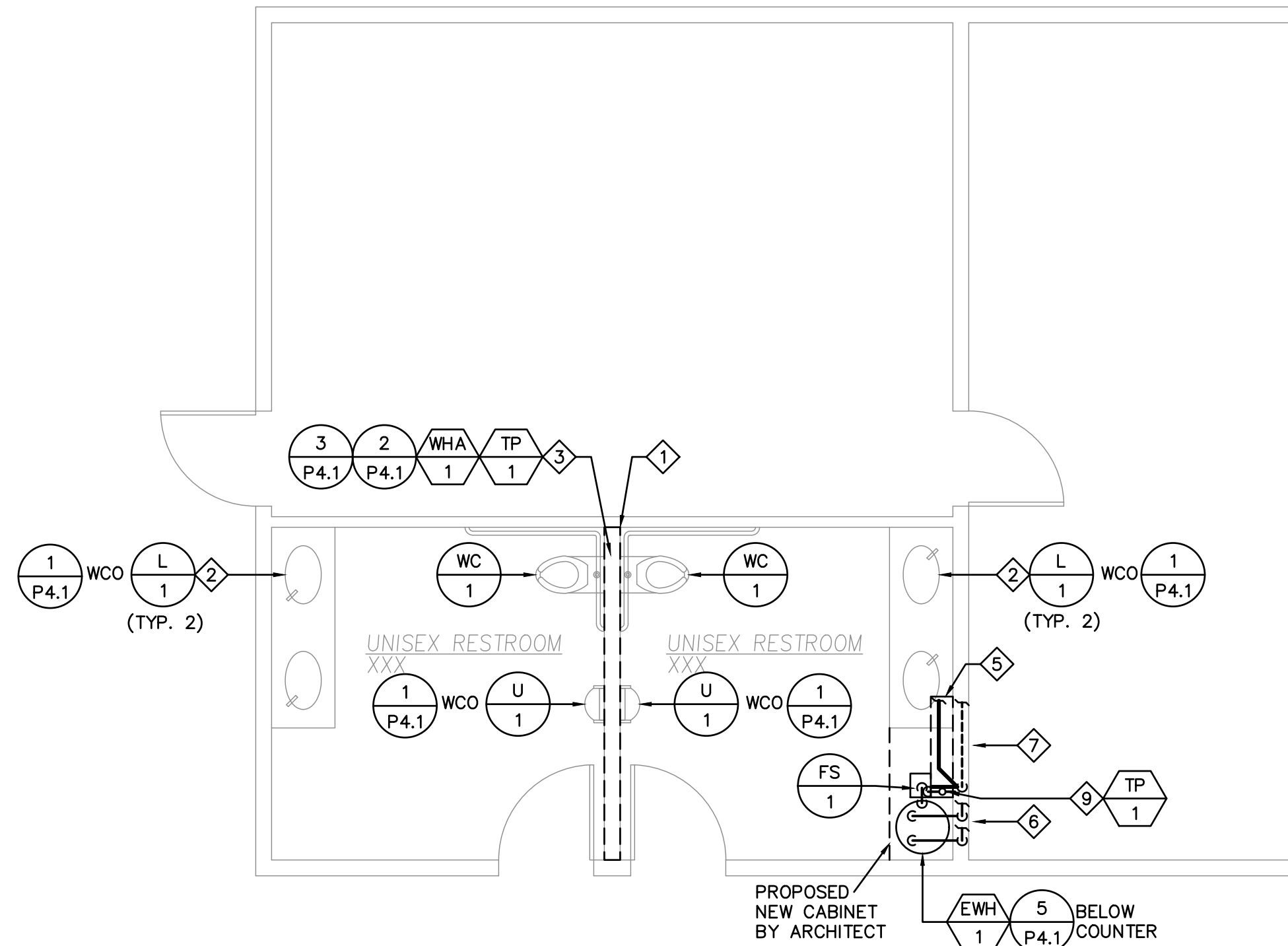
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NATURE CENTER - ENLARGED RESTROOM DEMOLITION PLAN

$$1/4'' = 1' - 0''$$

- 1 EXTEND MODIFIED CONNECTIONS WITHIN THE WET WALL TO NEW ROUGH-IN LOCATIONS SERVING NEW FIXTURES.
- 2 PROVIDE NEW SUPPLIES, LA PATTERN P TRAPS AND ADA WRAP AS DESCRIBED IN THE FIXTURE SCHEDULE.
- 3 PROVIDE NEW WATER HAMMER ARRESTORS AND TRAP PRIMERS. PROVIDE STAINLESS STEEL ACCESS PANELS FOR ACCESS. FIELD VERIFY EXACT LOCATION OF EXISTING EQUIPMENT.
- 4 EXTEND NEW UTILITIES FROM NEW DRINKING FOUNTAIN TO NEAREST EXISTING UTILITY SYSTEMS. MINIMUM 2" WASTE AND VENT, AND 3" COLD WATER REQUIRED.
- 5 SAWCUT THE FLOOR AS REQUIRED TO INSTALL NEW 2" WASTE LINE. PATCH AND REPAIR PER DETAIL #4/P4.1
- 6 EXTEND HOT AND COLD WATER BACK TO ORIGINAL ELECTRIC WATER HEATER TIE IN POINTS WITHIN THE WALL.
- 7 EXTEND WASTE AND VENT PIPING TO NEAREST EXISTING UTILITIES SYSTEMS. MINIMUM 2" WASTE AND VENT REQUIRED.
- 8 PROVIDE NEW LEAD FREE ISOLATION VALVES AT EACH PLUMBING WET WALL TO ISOLATE ENTIRE BACK OF FIXTURES. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF HOT AND COLD WATER SUPPLY PIPING. MODIFY AS REQUIRED HAVE A SINGLE ISOLATION POINT FOR EACH.
- 9 EXTEND 1/2" LINE FROM THE COLD WATER MAIN LOCATED IN THE WALL, PROVIDE NEW AUTOMATIC TRAP PRIMER BELOW THE COUNTER, SPILL TO FLOOR SINK 1" ABOVE THE FLOOD LEVEL RIM.



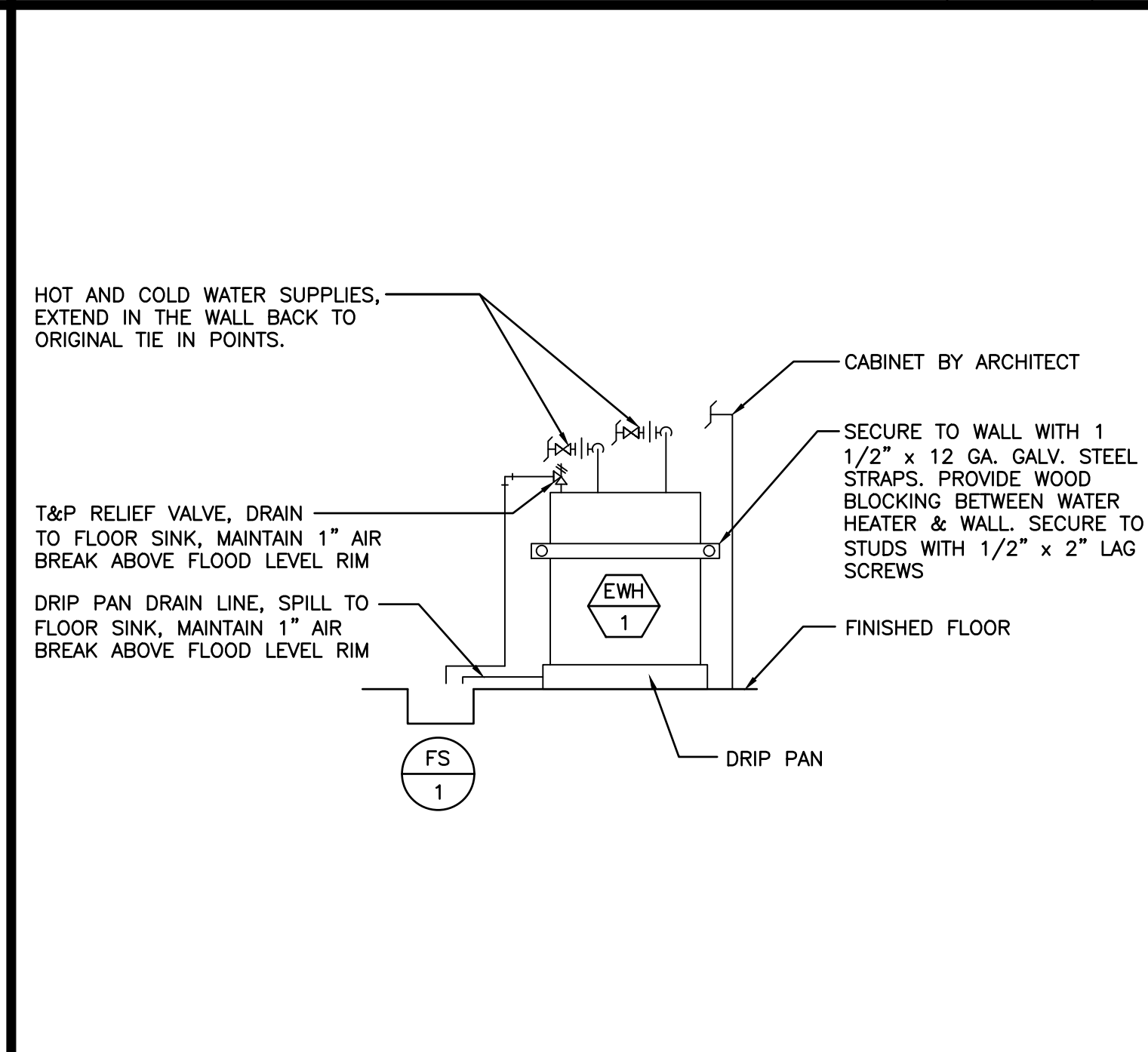
NATURE CENTER - ENLARGED RESTROOM REMODEL PLAN

$$1/4'' = 1' - 0''$$

[illegible]

Date	Time	Location	Remarks

NOT USED	NTS	8
NOT USED	NTS	9



The image contains two technical drawings. The top drawing, titled 'WALL CLEANOUT', is a cross-sectional view of a wall. It shows a vertical pipe with a 'CLEANOUT TEE' and a 'THREADED CLEANOUT PLUG'. To the right of the pipe is a 'CHROME PLATED STEEL COVER PLATE WITH SECURING SCREW' which is flush with the 'FINISHED WALL SURFACE'. The bottom drawing, titled 'FLOOR CLEANOUT', is a cross-sectional view of a floor. It shows a 'CLEANOUT AND ACCESS COVER' with its 'TOP OF COVER TO BE FLUSH W/ TOP OF FLOOR'. Below the cover is a '1/8 BEND' pipe. The floor is labeled 'FINISH FLOOR'.

WALL CLEANOUT

FINISHED WALL SURFACE

CHROME PLATED STEEL COVER PLATE WITH SECURING SCREW

THREADED CLEANOUT PLUG

CLEANOUT TEE

FLOOR CLEANOUT

FINISH FLOOR

CLEANOUT AND ACCESS COVER. TOP OF COVER TO BE FLUSH W/ TOP OF FLOOR.

1/8 BEND

2
NTS

LINE SIZE SHUT OFF BALL VALVE. VALVE SHALL BE INSTALLED TO OPEN AND CLOSE IN ACCESS BOX. REMOVE HANDLE IN OPEN POSITION AFTER TESTING AND DISINFECTION ARE COMPLETED

WALL MOUNTED STAINLESS STEEL ACCESS COVER PANEL WITH LOCK. SIZE OF ACCESS PANEL SHALL BE SUFFICIENT FOR THE REMOVAL & REPLACEMENT OF THE TRAP PRIMER AND ACCESSORIES BUT IN NO CASE SHALL BE SMALLER THAN 8"x8"

TRAP PRIMING VALVE BY PPP OR EQUAL

DISTRIBUTION UNIT MODEL (DU-4) (WHEN REQUIRED)

1/2" SUPPLY CONNECTION, REFER TO THE FLOOR PLANS FOR CONTINUATION

1/2" TRAP PRIMER LINES DOWN TO BELOW FLOOR SERVING FLOOR DRAIN/SINK

DISTRIBUTION CHART (MFG. BY PRECISION PLUMBING PRODUCTS)		
NO. OF DRAINS	PRIMER MODEL	DISTRIBUTION UNIT IS
1	P-2	NOT REQUIRED
2	P-2	DU-4
3	P-1	DU-4
4	P-1	DU-4

NOTE:
GROUP VALVES AND SIMILAR EQUIPMENT IN COMMON ACCESS PANELS WHEN APPLICABLE. ALL ITEMS SHALL BE FULLY OPERATIONAL AND SERVICEABLE.

AUTOMATIC TRAP PRIMER
NTS

3

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GENERAL NOTES

1. ALL ELECTRICAL MATERIALS AND EQUIPMENT INDICATED ON THE CONTRACT DOCUMENTS SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY. WHERE UL DOES NOT HAVE A LISTING, CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
AMERICAN STANDARD ASSOCIATION (ASA)
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
CALIFORNIA ELECTRICAL CODE (CEC) – LATEST EDITION
CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
ALL LOCAL CODES HAVING JURISDICTION.

WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT CODE SHALL APPLY.
2. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS, AND BY SUBMITTING HIS BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS. ADDENDUM. HE SHALL CHECK THE CONTRACT DOCUMENTS OF THE OTHER TRADES AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, CHARGES, AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ALL WORK, INCLUDING ALL COUNTY AND LOCAL GOVERNMENTAL AGENCIES. CHARGES BY STATE,
5. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES, ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE OWNER AT NO ADDITIONAL COST.
6. THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. THESE PRINTS SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT ON THE JOB SITE AND SHALL BE USED ONLY AS A RECORD SET. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE ENGINEER.
7. IN SOME INSTANCES, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER. THEREFORE, WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNER'S WORK IS BEING PERFORMED, THE CONTRACTOR SHALL ADVISE AND THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE ARCHITECT INSOFAR AS TIME AND PROCEDURE ARE CONCERNED. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL PREMIUM TIME HE MAY BE SUBJECT TO FOR EXCEEDING PERFORMING WORK IN SUCH PROCEDURE AND AT SUCH TIMES AS MAY BE NECESSARY TO CAUSE THE LEAST INTERFERENCE WITH THE OPERATIONS OF THE OWNER.
8. ALL INTERRUPTIONS OF ELECTRICAL, SIGNAL AND COMMUNICATION SYSTEMS SHALL BE KEPT TO A MINIMUM. WHEN AN INTERRUPTION IS NECESSARY THE SHUTDOWN SHALL BE COORDINATED WITH THE OWNER 14 CALENDAR DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS, BRANCH CIRCUITS, OR SIGNAL AND COMMUNICATIONS SYSTEMS BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION.
10. SHOP DRAWINGS SHALL BE SUBMITTED WITHIN TEN DAYS AFTER AWARD OF THE CONTRACT. THE CONTRACTOR SHALL SUBMIT EIGHT COPIES OF A COMPLETE LIST OF ALL MATERIALS AND EQUIPMENT INCLUDING MANUFACTURER AND MODEL NUMBER PROPOSED FOR THE JOB. SHOP DRAWINGS SHALL INCLUDE JOB DESCRIPTION, ARCHITECT AND ENGINEER IDENTIFICATION, AND ALL DATA WITH CAPACITIES, SIZES, DIMENSIONS, CATALOG NUMBERS AND MANUFACTURERS' BROCHURES.
11. AFTER ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.
12. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH OTHER TRADES.
14. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT AND SYSTEMS. SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE CONTRACT DOCUMENTS REVIEW THE CONTRACT DOCUMENTS AND SHOP DRAWING OF ALL TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT, DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.
15. EXACT ROUTING METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING. EXACT ROUTING METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE UL APPROVED.
16. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.
17. CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED IN WALLS, OR 18" MINIMUM BELOW BOTTOM OF FLOOR SLAB UNLESS NOTED OTHERWISE.
18. THE CONTRACTOR SHALL LOCATE ELECTRICAL EQUIPMENT AND BOXES, IN ACCESSIBLE CEILING SPACE OR PROVIDE AN ACCESS PANEL FOR INACCESSIBLE CEILING SYSTEMS. ACCESS DOORS SHALL BE A MINIMUM DIMENSION OF 24"x36". ACCESS DOORS LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.
19. WHENEVER A DISCREPANCY ARISES ON THE CONTRACT DOCUMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIAL AND SERVICES TO THE STRICTER CONDITION OR HIGHER QUALITY OR QUANTITY.
20. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY TYPE OF CEILING SYSTEMS AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE TYPE REQUIRED FOR MOUNTING IN SUBJECT CEILING. WHERE FIXTURES ARE RECESSED IN PLASTER OR DRYWALL CEILINGS, THEY SHALL BE COMPLETE WITH NECESSARY MOUNTING HARDWARE AND PLASTER FRAMES. PROVIDE FIXTURES WITH WET OR DAMP LOCATION LABEL WHERE REQUIRED.
21. ALL RECESSED POWER, LIGHTING, AND SIGNAL EQUIPMENT MOUNTED IN FIRE RATED CEILINGS OR WALLS SHALL BE ENCLOSED WITH AN APPROVED UL LISTED ENCLOSURE CARRYING THE SAME FIRE RATING.
22. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE UNLESS NOTED OTHERWISE. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.
23. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, ARTICLE 314-16, BUT IN NO CASE SHALL CONTAIN MORE THAN THE FOLLOWING NUMBER OF #12 AWG CONDUCTORS FOR THE SIZE OF BOX INDICATED. THE MINIMUM SIZE OUTLET OR JUNCTION BOX PERMITTED IN A WALL IS FOUR INCHES SQUARE BY 1-1/2" DEEP.

4"SQ. BY 1-1/2" D = 9 CONDUCTORS
4"SQ. BY 2-1/8" D = 13 CONDUCTORS
4 11/16"SQ. BY 1-1/2" D = 11 CONDUCTORS
4 11/16"SQ. BY 2-1/8" D = 18 CONDUCTORS
24. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS UNLESS NOTED OTHERWISE. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN. MOUNT ELECTRICAL DEVICES AT THE FOLLOWING HEIGHTS UNLESS NOTED OTHERWISE:

WALL SWITCH +4'-0" TO TOP OF DEVICE
CONVENIENCE RECEPTACLE +1'-3" TO BOTTOM OF DEVICE
TELEPHONE/DATA OUTLETS +1'-3" TO BOTTOM OF DEVICE
OUTLETS AND SWITCHES ABOVE COUNTERS WITHOUT SPLASHES OR CENTERED IN SPLASH SET HORIZONTALLY +6" TO TOP OF DEVICE
- REVIEW INTERIOR ELEVATIONS AND CASEWORK ELEVATION, DETAILS, AND SHOP DRAWINGS. OUTLETS MOUNTED ABOVE OR BELOW, OR ADJACENT TO CASEWORK SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND CASEWORK SHOP DRAWINGS PRIOR TO ROUGH-IN. ELECTRICAL CONTRACT DOCUMENTS SHALL GOVERN NUMBER AND TYPE OF OUTLETS. HOWEVER, LOCATIONS SHALL BE INDICATED ON ARCHITECTURAL ELEVATIONS AND CASEWORK SHOP DRAWINGS. PROVIDE CONDUIT, WIRES, AND OUTLETS FOR WORK REQUIRED IN CASEWORK INSTALLATIONS. REFERENCE ARCHITECTURAL DETAILS FOR METHOD OF ROUTING CONDUIT WITHIN CASEWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT-OUTS IN TILE OR COUNTER SPLASHES WHERE RECEPTACLES, OUTLETS, ETC., OCCUR. PROVIDE BOX EXTENSIONS THROUGH ALL CASEWORK. FINISH FLUSH WITH FACE OF SPLASH, CABINET, ETC.
25. DRAWINGS ARE DIAGRAMMATIC ONLY. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS NOTED OTHERWISE AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES.
26. THE EQUIPMENT GROUNDING CONDUCTOR SHOWN ON CONDUIT RUNS SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS – ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED.
27. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM SIZE, TYPE THHN/THWN THERMOPLASTIC, 600 VOLT, 75 DEGREES CELSIUS WET AND 90 DEGREES CELSIUS DRY AND UL LISTED UNLESS NOTED OTHERWISE. CONDUCTORS #12 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #10 AWG AND LARGER SHALL BE STRANDED.
28. RECEPTACLES SHALL BE SPECIFICATION GRADE, 20 AMP, NEMA 5-20R GROUNDING TYPE HUBBELL OR EQUAL. COLOR SHALL MATCH EXISTING.
29. SWITCHES SHALL BE 20 AMP, 120/277 VOLT RATED SILENT TYPE SPECIFICATION GRADE HUBBELL OR EQUAL BY PASS & SEYMOUR OR GENERAL ELECTRIC. COLOR SHALL MATCH EXISTING.
30. DEVICE PLATES SHALL BE NYLON FOR THE NUMBER OF GANGS AND TYPE OF OPENINGS NECESSARY, HUBBELL OR EQUAL BY PASS & SEYMOUR OR GENERAL ELECTRIC. COLOR SHALL BE SELECTED BY ARCHITECT. EMERGENCY RECEPTACLE PLATES SHALL BE RED IN COLOR. NORMAL AND EMERGENCY DEVICE PLATES SHALL BE ENGRAVED WITH PANEL AND CIRCUIT NUMBER.

BRANCH CIRCUIT WIRING NOTES

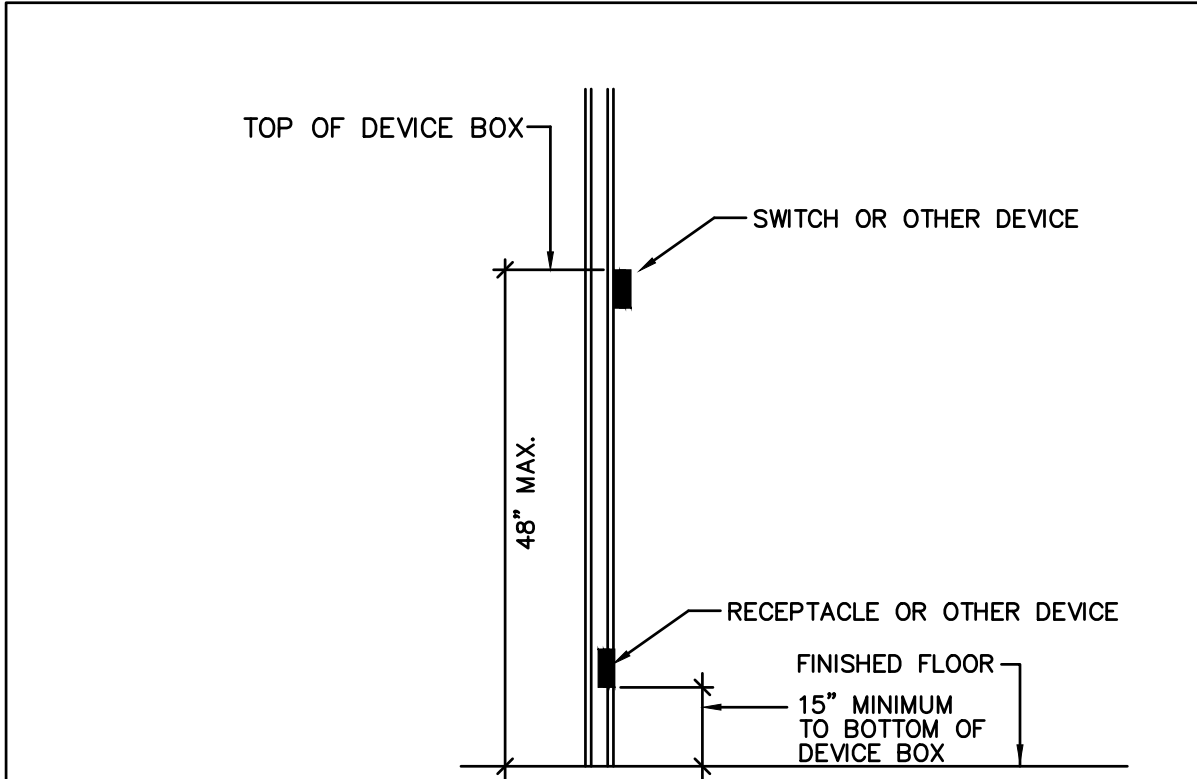
- A. FOR RECEPTACLE CIRCUITS & 120V BRANCH CIRCUITS, UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING CONDUCTORS: (1) #12 CONDUCTOR FOR EACH PHASE (I.E. CIRCUIT NUMBER) & (1) SEPARATE DEDICATED #12 NEUTRAL CONDUCTOR FOR EACH SINGLE 120 VOLT CIRCUIT, OR (1) #12 NEUTRAL CONDUCTOR FOR 2 TO 3 CIRCUITS WHERE EACH CIRCUIT IS ON A DIFFERENT PHASE; (1) EQUIPMENT GROUNDING CONDUCTOR, SIZED PER C.E.C. ART. #250 (DO NOT USE A COMMON NEUTRAL FOR MULTIPLE CIRCUITS ON SAME PHASE)
- B. FOR LIGHTING BRANCH CIRCUITS, PROVIDE THE FOLLOWING CONDUCTORS: (1) #12 CONDUCTOR FOR EACH PHASE (I.E. CIRCUIT NUMBER); (1) #12 NEUTRAL CONDUCTOR FOR A SINGLE, 120 OR 277 VOLT CIRCUIT, USE SEPARATE NEUTRAL/CKT., (1) INTERCONNECTING CONDUCTOR BETWEEN EACH 3-WAY AND/OR 4-WAY SWITCH.

LEGEND

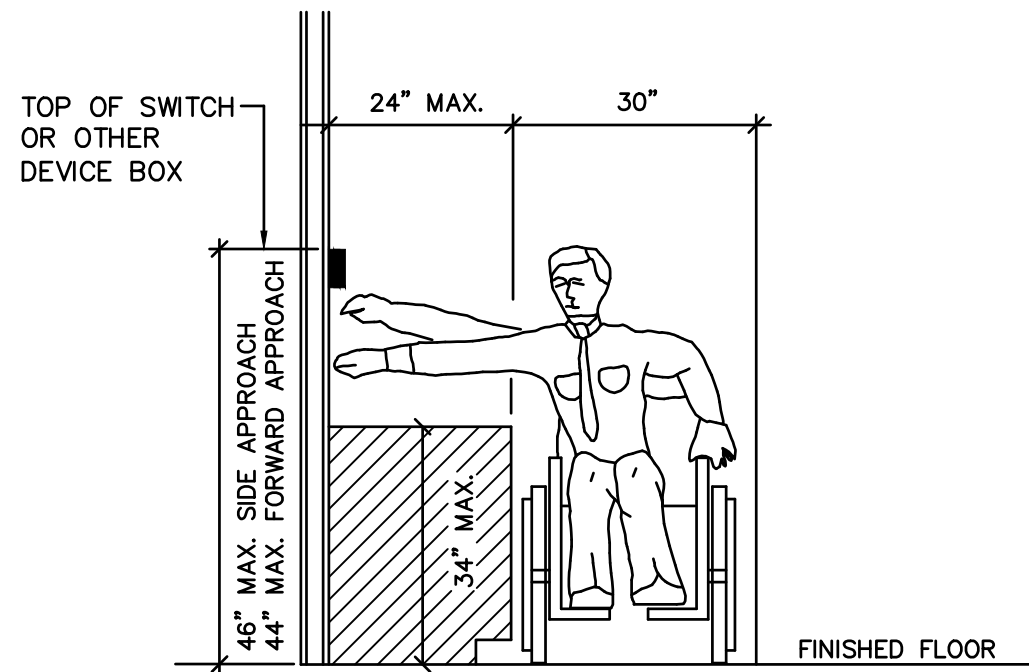
SYMBOL	DESCRIPTION
—	CONDUIT RUN, CONCEALED IN CEILING OR WALLS.
-----	CONDUIT RUN UNDER FLOOR.
—EX—	EXISTING CONDUIT RUN TO BE REMWRED.
B-1,3 →	CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBER. EXAMPLE SHOWN IN SYMBOL IS TO HAVE FOUR #12 CURRENT CARRYING CONDUCTORS (TWO #12 HOT AND TWO #12 NEUTRALS) AND ONE #12 GROUND. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER C.E.C. TABLE 250-95, BUT NOT SMALLER THAN #12.
— — — —	GROUND, "GND".
GFCI	"GROUND FAULT CIRCUIT INTERRUPTER"
3S	SWITCH. LOWER CASE LETTER AT BOTTOM INDICATES OUTLETS CONTROLLED. CAPITAL SUPERSCRIT INDICATES SWITCH TYPE. NO SUPERSCRIT — SINGLE POLE SWITCH 3 — THREE WAY K — KEYSWITCH M — MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION T — TIMER, 0-6 HR ROTARY OR AS NOTED
⊕E	EXISTING EQUIPMENT WITH "E" ADJACENT IS TO REMAIN.
⊕R	EXISTING EQUIPMENT WITH "R" ADJACENT IS TO BE COMPLETELY DISCONNECTED AND REMOVED.
⊕RR	EQUIPMENT WITH "RR" ADJACENT IS EXISTING TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION AND RECONNECTED AS REQUIRED.
⊕ER	RELOCATED EQUIPMENT SHOWN IN NEW LOCATION.
—E—	EXISTING CONDUIT RUN TO REMAIN. EXISTING CONDUCTORS TO REMAIN UNLESS NOTED OTHERWISE ON DRAWINGS.
—EA—	EXISTING CONDUIT RUN TO BE ABANDONED. REMOVE CONDUCTORS AND CAP ENDS OF CONDUIT. DIMENSION END OF CONDUIT ON AS-BUILT DRAWINGS.
—EX—	EXISTING CONDUIT RUN TO BE REMWRED. REFER TO PLANS FOR WIRING REQUIREMENTS.CROSS LINES INDICATES NEW CONDUCTORS. PROVIDE OTHER SYSTEM CONDUCTORS PER SPECIFICATION.
—R—	EXISTING CONDUIT AND WIRE RUN TO BE COMPLETELY DISCONNECTED AND REMOVED BACK TO LAST REMAINING OUTLET OR DEVICE.
— — — —	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER C.E.C. TABLE 250.95, BUT NOT SMALLER THAN #12.
100AF 70AT	MOLDED CASE CIRCUIT BREAKER. "AF" INDICATES AMPERE FRAME. "AT" INDICATES AMPERE TRIP RATING AND NUMBER OF POLES AS INDICATED. SUBSCRIPT INDICATES TYPE. NO SUBSCRIPT — THERMAL MAGNETIC NA — NON-AUTOMATIC MO — MAGNETIC ONLY CL — CURRENT LIMITING SS — SOLID STATE EM — ELECTRONIC METERING PACKING
⊕	VOLTAGE TRANSFORMER. FLOOR MOUNTED, COPPER WOUND, DRY TYPE UNLESS SPECIFIED OTHERWISE.
⊕	DUPLEX GROUND FAULT CIRCUIT INTERRUPTING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.
⊕	DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNTED 15 INCHES TO BOTTOM OF DEVICE, UNLESS OTHERWISE NOTED.
⊕	TWO DUPLEX GROUNDING TYPE RECEPTACLES IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.
⊕	DUPLEX GROUNDING TYPE RECEPTACLES IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. "USB" DENOTES RECEPTACLE WITH TWO INTEGRAL TYPE "A" USB 2.0 PORTS.
⊕	SPECIAL PURPOSE OUTLET MOUNTED IN FLUSH WALL BOX.
100AS 60AFU	FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING. "AFU" INDICATES FUSE AMPERE RATING.
—	RECESSED BRANCH CIRCUIT PANELBOARD.
⊕	JUNCTION BOX IN ACCESSIBLE CEILING SPACE OR FLUSH IN WALL WITH BLANK COVER PLATE TO MATCH DEVICE PLATES.
⊕	PANEL DESIGNATION.
—	WALL MOUNTED TELEPHONE AND/OR DATA OUTLET (MOUNTING HEIGHT 18" A.F.F U.N.O.) GC TO PROVIDE BACK BOX & RING / STRING. COORD. W/ COMMUNICATIONS VENDOR.
—	WALL MOUNTED TELEPHONE OUTLET (MOUNTING HEIGHT 18" A.F.F U.N.O.) GC TO PROVIDE BACK BOX & RING / STRING. COORD. W/ COMMUNICATIONS VENDOR.
4 2	DATA OUTLET, MOUNT AT +18 INCHES TO CENTER UNLESS OTHERWISE NOTED. "2" DENOTES DUPLEX OUTLET.
TV	MASTER TELEVISION ANTENNA SYSTEM SIGNAL AND POWER OUTLET. MOUNT AT +18 INCHES ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON DRAWINGS. CONNECT RECEPTACLE TO NEAREST CIRCUIT OR AS INDICATED ON DRAWINGS. "C" INDICATES CEILING MOUNTED.
⊕	COMBINATION TYPE ILLUMINATED EXIT LIGHT FIXTURE WITH BUG-EYE. SIDE, BACK, CEILING, OR PENDANT MOUNTED, SINGLE OR DOUBLE FACED AS NOTED BY SHADED ARC, WITH OR WITHOUT DIRECTIONAL ARROW AS NOTED ON THE DRAWINGS.

DRAWING LIST

DWG.NO.	DESCRIPTION
EO.1	GENERAL NOTES, LEGEND AND DRAWING LIST
EO.2	SINGLE LINE DIAGRAM
E1.1	SITE PLAN
E2.1	REMODEL FLOOR PLAN



DEVICE MOUNTING HEIGHT DETAIL



OVER OBSTRUCTION DETAIL

APPLICABLE CODES AND STANDARDS

- 2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1
- 2016 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2 (2015 INTERNATIONAL BUILDING CODE (IBC) W/ 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2015 NATIONAL ELECTRICAL CODE (NEC) W/ 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6
- 2016 CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 (2015 INTERNATIONAL FIRE CODE (IFC) W/ 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA EXISTING BUILDING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART10 (2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC))
- 2016 CALIFORNIA REFERENCED STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12
- AMERICANS WITH DISABILITIES ACT (ADA) TITLE II – ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO-DATE
- CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA STATE ACCESSIBILITY STANDARDS CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19
- 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN), PART II, TITLE 24 C.C.R.

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

TURTLE ROCK COMMUNITY CENTER

1 SONYHILL
IRVINE, CA 92603

SHEET TITLE:
GENERAL NOTES, LEGEND AND DRAWING LIST

DRAWN BY:

TL

DATE:

05.11.18

SCALE:

AS NOTED

PROJECT NO:

1705

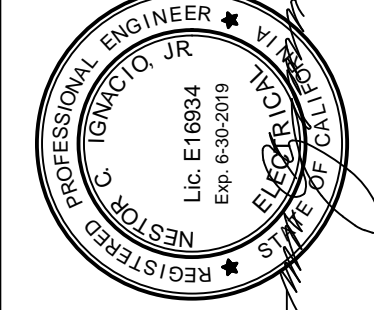
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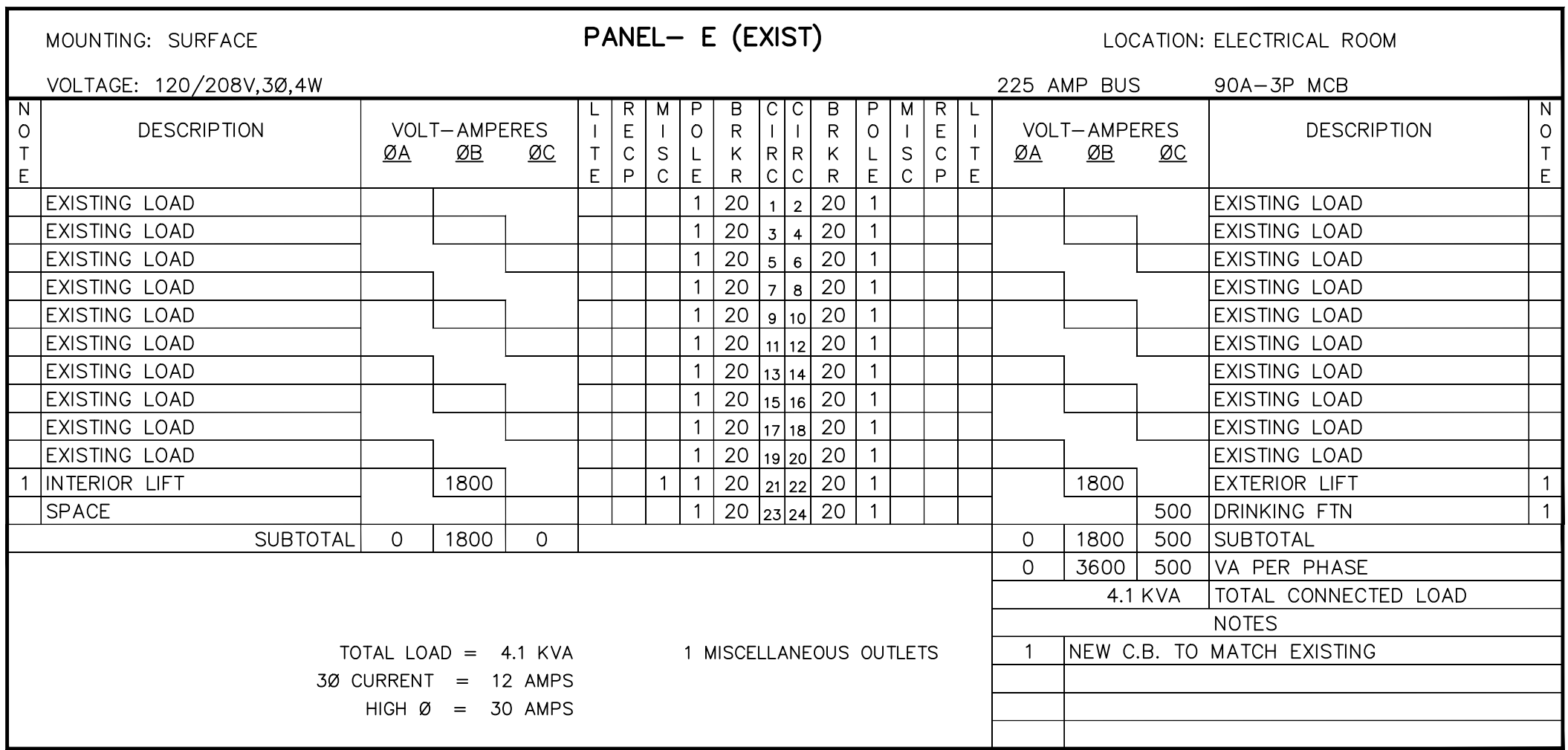
E0.1

RM ARCHITECTURE
CONSTRUCTION MANAGEMENT
RUBIO MEDINA ARCHITECT
780 ROOSEVELT
IRVINE, CA 92620
P: 949.333.0030
F: 949.333.0100

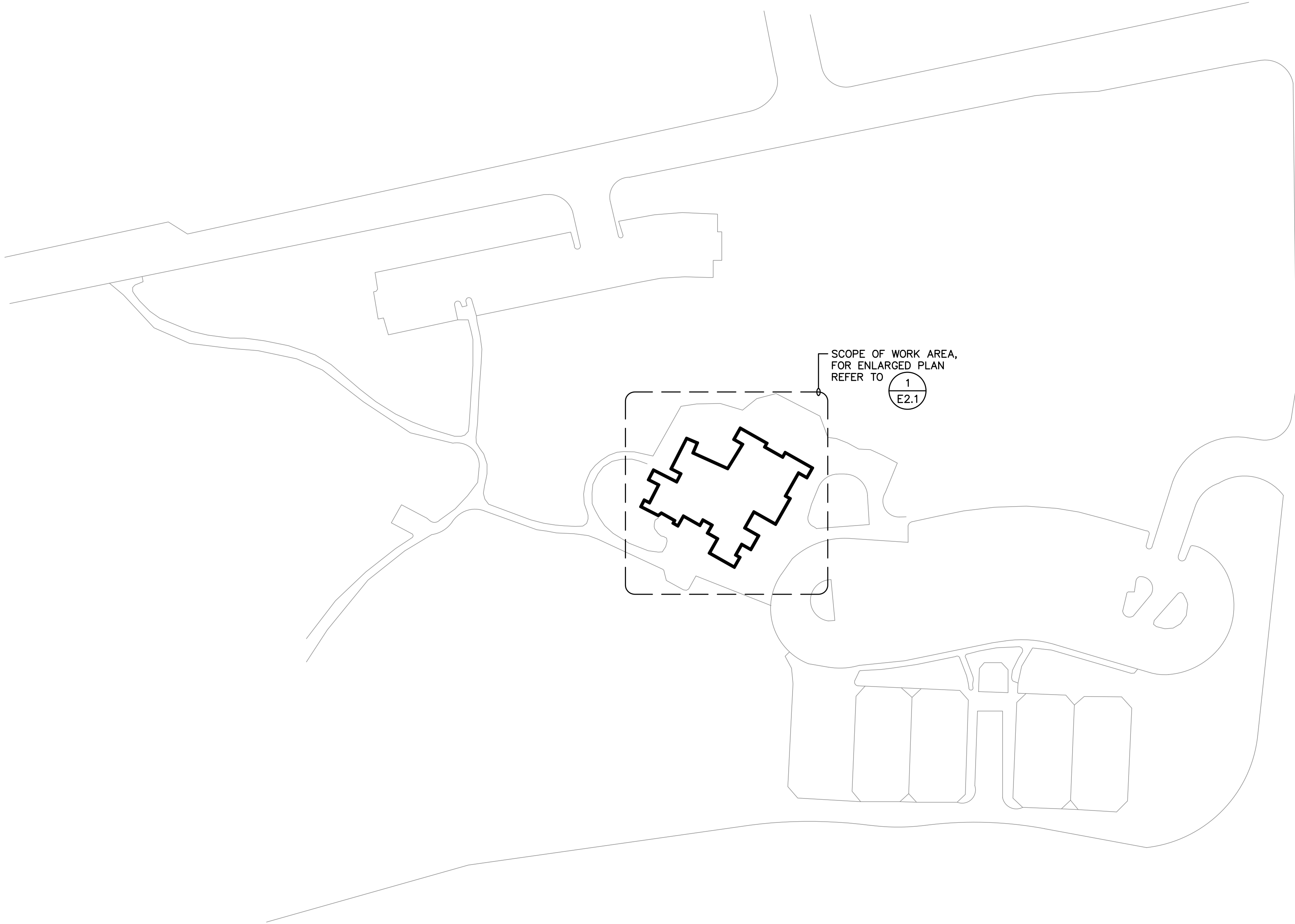
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SITE PLAN

1"=40'-0"

1

KEY NOTES

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:

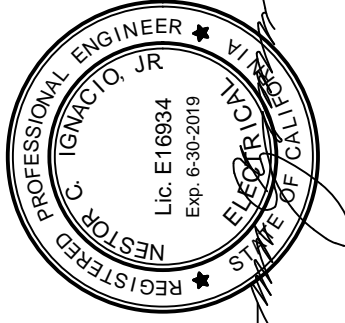
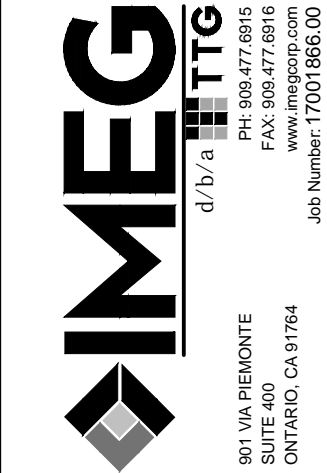
TURTLE ROCK COMMUNITY CENTER

SUNNYHILL
IRVINE, CA 92603

SHEET TITLE:
SITE PLAN

DRAWN BY:	TL
DATE:	05.11.18
SCALE:	AS NOTED
PROJECT NO:	1705
SHEET:	

E1.1



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RM ARCHITECTURE
ARCHITECTURE + PLANNING +
CONSTRUCTION MANAGEMENT
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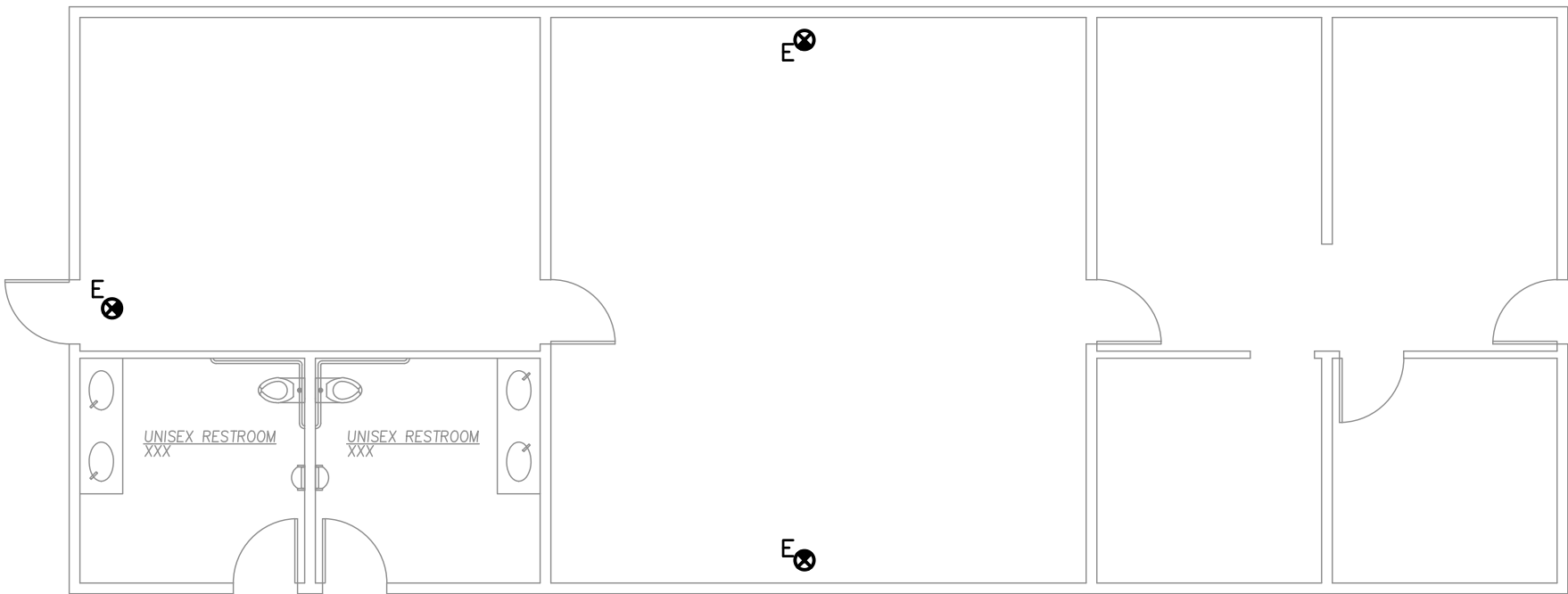
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COMMUNITY CENTER - FLOOR PLAN

1/8"=1'-0"

1



NATURE CENTER - FLOOR PLAN

1/8"=1'-0"

2

KEY NOTES

◇ OUTDOOR DISCONNECT SWITCH SHALL BE NEMA 3R RATED. INDOOR DISCONNECT SWITCH SHALL BE NEMA 1 RATED. PROVIDE OUTLET BOX FOR LIFT CONTROLS. COORDINATE WITH INSTALLER ON FINAL LOCATION AND CONDUIT REQUIREMENTS.

ACCESSIBILITY IMPROVEMENTS FOR CITY OF IRVINE:	
TURTLE ROCK COMMUNITY CENTER	
# SUNNYHILL IRVINE, CA 92603	
SHEET TITLE: REMODEL FLOOR PLAN	
DRAWN BY: TL	
DATE: 05.11.18	
SCALE: AS NOTED	
PROJECT NO: 1705	
SHEET: E2.1	

RM ARCHITECTURE

ARCHITECTURE + PLANNING + CONSTRUCTION MANAGEMENT

RUBIO MEDINA ARCHITECT

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Rubio Medina, Architect

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REGISTERED PROFESSIONAL ENGINEER

IRVING, TEXAS

EXPIRATION DATE: 05/31/2019

EXPIRATION DATE: 05/31/2019

EXPIRATION DATE: 05/31/2019

IMEG

TTG

d/l/a

PH: 908.477.8815

www.imegcorp.com

Job Number: 17001866.00

901 VIA FREMONT

ONTARIO, CA 91764

2.6



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: AWARD OF CONSTRUCTION CONTRACT FOR CULVER/UNIVERSITY
INTERSECTION IMPROVEMENTS



Director of Public Works



City Manager

RECOMMENDED ACTION

1. Approve and authorize the Mayor to execute a construction contract with Beador Construction Company, Inc., the lowest responsive and responsible bidder, in the amount of \$3,549,300 for the Culver/University Intersection Improvements, Capital Improvement Project (CIP) 318030.
2. Authorize the City Manager to execute the Reimbursement Agreement with Irvine Ranch Water District (IRWD) for the installation and adjustment of water facilities within the project area.
3. Approve the Revised Project Funding Summary.

EXECUTIVE SUMMARY

Competitive bids for construction of the Culver/University Intersection Improvements were received on May 1, 2018. Following the bid opening, the apparent low bidder withdrew its bid, as permitted by Public Contract Code Section 5103. A copy of the contractor's letter dated May 4, 2018 and the City's response are included as Attachment 2. The base bid amount from the second lowest responsive and responsible bidder, Beador Construction Company, Inc. (Beador), exceeds the approved Engineer's Estimate of \$2,972,000 by \$315,300 or 10.6 percent. In accordance with the City's Financial Policies, staff is presenting the construction contract award for City Council consideration. The recommended contract award in the amount of \$3,549,300 includes \$262,000 in additive bid items for IRWD related improvements within the project area. IRWD will reimburse the City for the cost of the additive items (Attachment 3). Funding for the recommended contract award is available in the approved CIP project budget and no additional budget allocation is required.

The proposed intersection widening is one of several traffic capital projects approved by the City Council to reduce traffic congestion on major roadways in the City. Construction is expected to begin in September 2018 and be completed by October 2019, subject to City Council approval of the recommended contract award.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

On October 24, 2017, the City Council approved the plans, specifications and contract documents for the subject CIP, and authorized staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures. The bid solicitation was postponed to allow for completion of the right-of-way certification from the County of Orange and bird nesting season in habitat sensitive areas adjacent to the project. Sixty-seven firms received the construction bid documents, and on May 1, 2018, six bids were received as shown below:

Contractor	Base Bid	Additive Bid (IRWD)	Total Bid
Klassic Engineering	\$2,643,165.37	\$105,201.00	\$2,748,366.37
Beador Construction Company, Inc.	\$3,287,300.00	\$262,000.00	\$3,549,300.00
Los Angeles Engineering	\$3,380,041.00	\$145,650.00	\$3,525,691.00
PUB Construction, Inc.	\$3,643,280.00	\$196,125.00	\$3,839,405.00
Palp, Inc. dba Excel Paving Co.	\$3,824,694.00	\$102,621.00	\$3,927,315.00
All American Asphalt	\$3,967,566.13	\$176,577.87	\$4,144,144.00
Engineer's Estimate	\$2,972,000.00	\$86,000.00	

The apparent low bidder, Klassic Engineering, withdrew its bid within the five day period allowed by Public Contract Code Section 5103, due to errors it made that resulted in pricing lower than intended. Although not a factor in the City's decision allowing the contractor to withdraw its bid, staff contacted Planet Bids regarding the contractor's claim that it experienced difficulties with the online bid system. Planet Bids indicated it had no record of a system malfunction or of any other complaints from other contractors. The base bid amount from the second lowest, responsive and responsible bidder (Beador) is \$3,287,300 and exceeds the approved Engineer's Estimate by \$315,300 or 10.6 percent. Pursuant to the City's Financial Policies, a low bid that exceeds the Engineer's Estimate by more than 10 percent requires City Council approval to award a contract.

A summary of bid results is included as Attachment 4. The competitive bid amounts from the five eligible bidders are within 20 percent of each other and appear to be consistent with construction pricing trends for similar work. The construction estimate prepared by the City's consultant engineer appears to have under estimated the cost for the concrete retaining wall (bid item 41) and concrete box storm drain (bid items 48 and 49). The pricing for the remaining 72 bid items are consistent with the Engineer's Estimate.

The recommended construction contract also includes additive bid items for work on behalf of IRWD to relocate water and sewer facilities within the project area. The cost for the additive bid items will be reimbursed to the City by IRWD. The bid prices for the IRWD additive bid items also exceed the engineer's estimate. IRWD has reviewed the bid prices received for these items and concurs with the recommended contract award. The proposed Reimbursement Agreement (Attachment 3) provides for reimbursement to the City for all project costs related to IRWD facilities.

A Revised Project Funding Summary is included as Attachment 5 for consideration by the City Council. Sufficient funding is available in the approved CIP project budget of \$5,158,000 to award the recommended construction contract and therefore, an additional budget allocation of funds is not necessary. If approved by the City Council, construction is anticipated to begin in September 2018 with completion by October 2019.

ALTERNATIVES CONSIDERED

The City Council could direct staff to reject all bids and rebid the project. This alternative is not recommended because the bids received appear to be competitive and rebidding the project is not expected to result in a lower construction contract amount. Awarding the contract will save time incurred through a rebidding process and allows for construction of the improvements to commence in September 2018.

FINANCIAL IMPACT

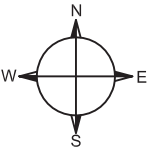
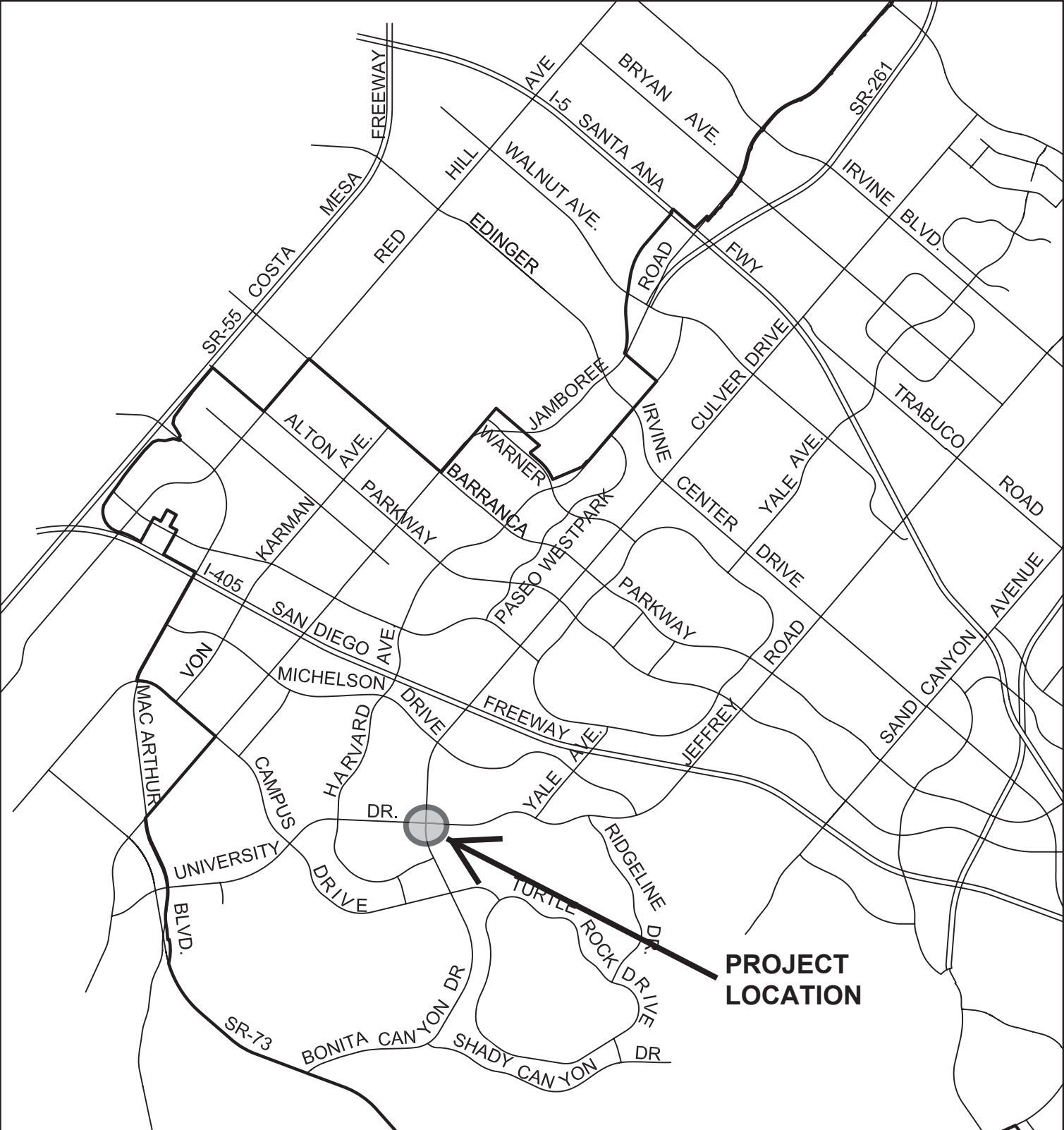
Project expenditures to date for preliminary engineering, right-of-way and preparation of the construction plans and contract documents total \$1,200,800. The recommended budget allowance of \$380,980 for construction engineering and \$300,000 for construction contingency brings the total estimated cost for the construction phase to \$4,230,280. Funding for the construction phase, including the recommended construction contract award, is available in the City Council approved CIP 318030 from NITM Development Fees and IRWD reimbursement funds. A complete Revised Project Funding Summary is provided as Attachment 5.

REPORT PREPARED BY Uyenly Bui, PE, Senior Civil Engineer

ATTACHMENTS

1. Vicinity Map
2. Bid Withdrawal Letter
3. IRWD Reimbursement Agreement
4. Bid Tabulation Summary Sheet
5. Revised Project Funding Summary

CULVER/UNIVERSITY INTERSECTION IMPROVEMENTS



VICINITY MAP



May 4, 2018

TO: City of Irvine-Public Works

RE: University/Culver Intersection Improvements

Klassic Engineering and Construction Inc. is writing this letter as the lowest responsible bidder for the Culver/ University Intersection Project. Klassic Engineering would like to hereby, officially remove itself from consideration from this Job Bid. We would like to have our company and its respective bid removed from the Culver/University Street Intersection Improvements Project. Klassic Engineering encountered a few clerical errors while inputting the values for respective line items in the PlanetBids system, therefore the price we intended is not reflected in our submitted final price. Furthermore, the Planet Bids portal system gave us massive amounts of trouble. In the hour leading up to the bid at 10 a.m. the system logged us completely out of Planet Bids multiple times, this lead to our information that had already been filled out on the line items to be erased and for Klassic Engineering to have to re-enter the information a minimum of 3 times. This was obviously extremely time consuming and lead to a total of 3 major clerical errors that were made in haste as the final and successful attempt was literally made just a few minutes before the 10 a.m. bid deadline. The 3 major clerical errors were (in ascending order of their respective Bid Line Item as follows; Item #5 "Clearing and Grubbing" was accidentally placed at a line item total of \$43,000 which in fact it should have been \$143,000.00, the next error was made on Item #39 "Unclassified Excavation" were again the Unit Price was erroneously entered as \$8/CY instead of \$18/CY, this made the Line item total \$45, 849 as opposed to \$103,140.00. Finally, the last mistake made was on Item #46 "Specialty Item-Install Filterra", the Unit Price entered was \$10,000/Unit instead of \$100,000.00/Unit, with 2 of these units this resulted in a Line Item Price of \$20,000.00 instead of \$100,000.00. With these 3 simple mistakes that were made as Klassic was racing against the clock it is easy to see

ATTACHMENT 2

how these errors were quickly made. If you total up the difference between the numbers that were posted and the numbers that were intended to post it totals \$337,300. Unfortunately, with these clerical errors that were made it results in Klassic Engineering having to withdraw our bid at this time. Please accept our sincerest apologies for any inconvenience this may have resulted in. Although this bid did not work out, Klassic Engineering looks forward to working with the City of Irvine on future endeavors and projects. Please do not hesitate to contact us at Klassic Engineering and Construction Inc. with any questions or concerns and you may speak with the owner of the company, Keivan Shirali at 714.552.1660 directly with any questions or comments.

Sincerely,

Alexander Shirali

Office Manager



Sent via USPS and email to: classicplans@gmail.com

May 25, 2018

Mr. Alexander Shirali
Office Manager
Klassic Engineering & Construction Inc.
250 S. Tustin Ave.
Orange, CA 92866

**SUBJECT: Response to Request to Withdraw Bid for Culver/University Intersection Improvements
– Bid No. 18-1336**

Dear Mr. Shirali:

The City of Irvine ("City") is in receipt of the letter dated May 4, 2018 from your company, Klassic Engineering & Construction Inc., requesting to withdraw your bid for the City's "Culver/University Intersection Improvements" project, Bid No. 18-1336.

Upon careful review of Klassic Engineering & Construction Inc.'s request to withdraw its bid due to a mistake, City has determined the following: Pursuant to California Public Contract Code ("CPCC") Section 5101 Relief of Bid, City hereby consents to relieve Klassic Engineering & Construction Inc. of its bid, as it has established the following factors, in accordance with CPCC Section 5103 Mistake in Bid:

- A mistake was made.
- Klassic Engineering & Construction Inc. gave City written notice within five (5) working days after the opening of the bids of the mistake, specifying in the notice in detail how the mistake occurred.
- The mistake made the bid materially different than Klassic Engineering & Construction Inc. intended it to be.
- The mistake was made in filling out the bid and not due to error in judgment or to carelessness in reviewing the specifications.

Please be advised that, pursuant to CPCC Section 5105 Prohibition on Participation in Further Bidding, Klassic Engineering & Construction Inc. is hereby prohibited from participating in further bidding on the subject project. Klassic Engineering & Construction Inc. did not submit an original bid bond; so there is no enclosure of such.

If you have any questions, you may call me at (949) 724-6181.

Sincerely,

Portia Mina
Purchasing Agent

cc: Uyenly Bui, Senior Civil Engineer

Attachment: Letter dated May 4, 2018 from Klassic Engineering & Construction Inc.

REIMBURSEMENT AGREEMENT BETWEEN
IRVINE RANCH WATER DISTRICT
AND THE CITY OF IRVINE
FOR
CULVER DRIVE AND UNIVERSITY DRIVE INTERSECTION IMPROVEMENTS
CIP NO. 318030

This Agreement is made and entered into as of this ____ day of _____, 2018, by and between IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law, hereinafter referred to as “DISTRICT,” and the CITY OF IRVINE, a municipal corporation, hereinafter referred to as “CITY.”

W I T N E S S E T H:

WHEREAS, CITY proposes to construct the Culver Drive and University Drive Intersection Improvements, CIP 318030 (the “Project”), within the jurisdictional boundaries of DISTRICT and the City of Irvine; and

WHEREAS, such construction will necessitate the adjustment to grade of 2 Manholes, and removal and installation of 1 Fire Hydrant, 7 Water Valve Cans, 1 Backflow Assembly, 2 Vault Vents, 1 Domestic Water Meter, 1 Cathodic Protection Test Station, , 1 Blowoff Assembly, and 2 Gate Valves as depicted on Exhibit “A” attached hereto incorporated by reference herein (hereinafter referred to as the “IRWD FACILITIES”); and

WHEREAS, the parties have determined that it would be more expedient for CITY to construct the IRWD FACILITIES rather than for DISTRICT to do so; and

WHEREAS, DISTRICT is amenable to the CITY constructing the IRWD FACILITIES with the CITY agreeing to advance the costs; and

WHEREAS, DISTRICT agrees to fully reimburse the CITY through payments billed by the CITY and approved by DISTRICT for the entire cost of the IRWD FACILITIES; and

WHEREAS, except as otherwise provided herein, upon the completion of the IRWD FACILITIES, the IRWD FACILITIES shall become the property of DISTRICT in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties hereto agree as follows:

SECTION 1. IRWD FACILITIES. In conjunction with the Project, CITY agrees to initiate and pursue to completion the design and construction of the IRWD FACILITIES.

SECTION 2. PLANS. CITY agrees that the IRWD FACILITIES shall be completed pursuant to approved project plans and specifications (the "Plans and Specifications") which shall be approved by DISTRICT and used in awarding the construction contract. Prior to commencement of preparation of the Plans and Specifications, CITY shall submit its design engineer's proposal for the design of the IRWD FACILITIES to DISTRICT. DISTRICT will have a period of five (5) calendar days from its receipt of such design proposal to review and either indicate its approval or request changes. CITY shall cause its design engineer to review and respond to any requested changes. The Plans and Specifications shall be deemed to incorporate the applicable portions of DISTRICT's latest edition of "Construction Manual for the Construction of Water, Sewer, and Reclaimed Water Facilities" (the "Construction Manual"). The IRWD FACILITIES shall be contracted by CITY together with non-reimbursable work to be completed by CITY within the Project pursuant to plans prepared by CITY's design engineer.

SECTION 3. BIDDING AND AWARD. The parties agree that the construction of the IRWD FACILITIES shall be included in CITY's contract(s) awarded for the Project and that the IRWD FACILITIES shall be bid as a separate item or items that can be deleted. During the bidding process, CITY shall deliver to IRWD one (1) complete set of the bid documents that include the IRWD FACILITIES, including all related addenda concurrently with the distribution thereof to prospective bidders. Upon opening of bids by CITY, CITY will submit the bids or a spread sheet summary of the bids to DISTRICT. DISTRICT will have a period of ten (10) calendar days from its receipt of the bid results for review and approval of the IRWD FACILITIES bid item(s) submitted by the bidder identified to DISTRICT by CITY as CITY's proposed successful bidder. CITY agrees that bids received for the construction of the IRWD FACILITIES bid item(s) shall be subject to the approval of DISTRICT prior to award of the Project construction contract(s) that include the IRWD FACILITIES; and further agrees that in the event DISTRICT does not approve such bids, either party may terminate this Agreement

upon twenty-four (24) hours' prior written notice, in which event CITY shall have no further obligation to construct the IRWD FACILITIES, and DISTRICT may elect to install the IRWD FACILITIES with its own contractor. If DISTRICT approves of the IRWD FACILITIES bid item(s) of CITY's successful bidder, CITY agrees to cause the IRWD FACILITIES to be constructed as part of the contract awarded to such bidder. The total estimated construction cost for the IRWD FACILITIES is \$272,480.00, provided, however, the amount to be reimbursed by DISTRICT shall be based on the actual costs of construction. Upon award of the construction contract, CITY shall provide DISTRICT with one (1) original copy of the fully executed contract documents and one (1) copy of the bid package relating to the IRWD FACILITIES received from the successful bidder.

SECTION 4. DESIGN REVISIONS AND CHANGE ORDERS. DISTRICT agrees to reimburse CITY for any change order(s) for revision(s) requested by DISTRICT or otherwise required to construct the IRWD FACILITIES. CITY shall promptly furnish DISTRICT with copies of any proposed change order(s) to such contract within five (5) working days of the initiation of the changed conditions to such contract, which shall be subject to DISTRICT approval if and to the extent the IRWD FACILITIES are affected therefrom.

DISTRICT shall promptly review proposed change order(s) and provide CITY with a response within five (5) working days or sooner of receiving proposed change order(s) information from CITY. DISTRICT agrees not to unreasonably cause delay(s) to the construction schedule of the Project in reviewing proposed change order(s) for the IRWD FACILITIES. Notwithstanding any other provision herein, any approval required to be given by the DISTRICT under this Section shall be deemed given if no response to the CITY's request for such approval is received by the CITY within eight (8) working days following the written request for such approval unless the parties agree otherwise in a writing executed by both parties.

SECTION 5. REIMBURSEMENT. DISTRICT agrees to reimburse CITY for the following costs (collectively, the "Costs"): (1) the actual costs of design, construction, permits, bonds, and legal fees (excluding the costs of preparation of this Agreement) incurred by CITY in connection with the design and construction of the IRWD FACILITIES, plus (2) an administration fee which shall be equal to four percent (4%) of the actual cost of construction (costs paid directly to CITY's contractor for construction, only, excluding any cost for design, surveying, geotechnical or other work) of the IRWD FACILITIES and which shall be deemed to cover all costs of project administration, including, but not limited to, accounting, inspection,

surveying, compaction testing, geotechnical services and engineering. CITY shall keep a separate accounting of all Costs incurred by CITY in relation to the IRWD FACILITIES.

Within sixty (60) days of DISTRICT's acceptance of the IRWD FACILITIES as provided in Section 8, a final accounting of the Costs shall be made by CITY and submitted to DISTRICT along with an invoice for the Costs and any supporting documentation necessary to show the amounts which represent Costs of IRWD FACILITIES. Amounts paid pursuant to progress payment invoices shall be subject to adjustment in the final accounting. Within thirty (30) days of said final accounting, DISTRICT agrees to pay to CITY the total amount of the Costs.

SECTION 6. LAWS, ORDINANCES, RULES AND REGULATIONS. CITY shall require in its contract for the construction of the IRWD FACILITIES that its contractor be fully informed of and comply with all laws, ordinances, rules and regulations, including, but not limited to, all applicable requirements of the California Labor Code, prevailing wage laws, the Construction Manual, and the Rules and Regulations of DISTRICT, in connection with the construction of the IRWD FACILITIES.

SECTION 7. INSPECTION. DISTRICT shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and DISTRICT shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and material inspection thereof. DISTRICT shall have access to all phases of the Project work to be performed by CITY for the purpose of such inspection; provided, however, all questions regarding the work being performed will be directed to CITY's resident engineer. DISTRICT will promptly notify CITY of any portion of the work on the IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of DISTRICT as to conformity of the IRWD FACILITIES with the Plans and Specifications shall be made in DISTRICT's sole and absolute discretion. DISTRICT agrees not to unreasonably withhold its approval as to such conformity of the IRWD FACILITIES with the Plans and Specifications. CITY shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. CITY agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 8. ACCEPTANCE. DISTRICT agrees to accept the IRWD FACILITIES when the IRWD FACILITIES have been completed by CITY in accordance with all

requirements of the Plans and Specifications, including any change orders approved by DISTRICT as provided in Section 3 hereof. At the time of completion and acceptance of the IRWD FACILITIES, CITY agrees to furnish DISTRICT with one (1) copy of the contractor's redlined set of "record" drawings (showing all revisions, manufacturer and type of valves, pipe and fittings as required by DISTRICT) and one (1) copy of the compaction reports and certificate, survey notes and cut sheets.

SECTION 9. OWNERSHIP. It is mutually agreed between the parties hereto that notwithstanding the fact that CITY shall accomplish the construction of the IRWD FACILITIES subject to reimbursement, the IRWD FACILITIES to be completed hereunder, together with the necessary franchises, licenses, easements, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of DISTRICT, as modified or amended from time to time. CITY hereby disclaims any interest in the IRWD FACILITIES and does hereby transfer and assign to DISTRICT any and all right, title, and interest it may have in the IRWD FACILITIES. DISTRICT shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 10. GUARANTEES. CITY will, pursuant to the requirement(s) of the Plans and Specifications, cause its contractor(s) for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by CITY, which acceptance shall be given only after acceptance by DISTRICT as provided in Section 8. It is further agreed that CITY shall cause the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portions of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, express or implied, from CITY's contractors or material manufacturers, with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by DISTRICT's inspection and/or acceptance of the IRWD FACILITIES. This section sets forth the entire guarantee and warranty of CITY with respect to the IRWD FACILITIES. The express or implied warranties of other persons with respect to IRWD FACILITIES shall in no way be limited by the guarantee and warranty of CITY contained in this section. If requested by DISTRICT, CITY agrees to assign to DISTRICT the contractor's guarantee and/or any other guarantees or warranties relating to the IRWD FACILITIES.

SECTION 11. INDEMNIFICATION. CITY shall indemnify, defend and hold DISTRICT, its officers, agents, employees, and engineers harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES as a result of any work or action performed by CITY or on behalf of CITY, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any act, omission, or negligence of DISTRICT, its officers, agents, employees or engineers or by any act or omission for which DISTRICT, its officers, agents, employees or engineers are liable without fault.

DISTRICT shall indemnify, defend and hold CITY, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any acts performed by DISTRICT, its officers, agents, or employees, with respect to the IRWD FACILITIES construction; or (ii) following DISTRICT acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any negligence of CITY, its officers, agents, employees or engineers, or by any act or omission for which CITY, its officers, agents, employees or engineers are liable without fault.

SECTION 12. INSURANCE AND BONDING. CITY shall cause its contractor(s) to provide performance and payment bonds for the construction of the Project including the IRWD FACILITIES and to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include DISTRICT, its officers, agents, employees and engineers, as additional insureds on all insurance policies that CITY requires its contractor(s) to provide. As evidence of such insurance coverage, CITY shall, prior to commencement of construction of the IRWD FACILITIES, provide DISTRICT with certificates of insurance and insurance endorsements from CITY's contractor(s) in a form acceptable to DISTRICT.

SECTION 13. TERMINATION. DISTRICT shall have the right to terminate this Agreement at any time, subject to the provisions of this section, by providing five (5) business days' prior written notice to CITY, except as noted in Section 3. If at the request or direction of a party other than CITY, the construction of the IRWD FACILITIES is not accomplished or completed, DISTRICT shall remain obligated for the actual amount of the Costs incurred by CITY to the date of termination.

If CITY's Project is canceled or modified so as to eliminate the necessity of the construction of the IRWD FACILITIES, CITY shall have the right to terminate this Agreement and thereby terminate its obligation to construct the IRWD FACILITIES, by providing five (5) business days' prior written notice to DISTRICT. In such case, DISTRICT will not be obligated for any design or any other Costs incurred by CITY. If IRWD elects to construct the IRWD FACILITIES, DISTRICT may, but shall not be obligated to, acquire the design or other work from CITY by separate agreement.

SECTION 14. NOTICE. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

DISTRICT:	Irvine Ranch Water District 15600 Sand Canyon Avenue P.O. Box 57000 Irvine, CA 92619-7000 Attn: General Manager
CITY:	City of Irvine Public Works Department 6427 Oak Canyon Irvine, CA 92618 Attn: Steve Ollo, Senior Civil Engineer

SECTION 15. SUCCESSORS AND ASSIGNS; INTEGRATION; AMENDMENT. This Agreement shall be binding upon and inure to the benefit of the successor and assigns of CITY and DISTRICT. This Agreement constitutes the entire Agreement between CITY and DISTRICT and supersedes all prior understandings and agreements between the parties with respect to the subjects hereof. This Agreement may be modified only in writing signed by both parties hereto.

SECTION 16. LEGAL FEES. In the event of any declaratory or other legal or equitable action instituted between CITY and DISTRICT in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 17. DEEMED APPROVAL. Any approval required to be given by either party pursuant to this Agreement shall be deemed given if no response to the party's request for

such approval is received by the requesting party within fifteen (15) days following the written request for such approval.

SECTION 18. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or other unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 19. APPLICABLE LAW. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

SECTION 20. WAIVER. The waiver of any provision of this Agreement by either party shall not be deemed to be a waiver of any other provision or of any preceding or subsequent breach hereunder.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date herein above written.

IRVINE RANCH WATER DISTRICT

By _____
Paul Cook, General Manager

Dated _____

ATTEST:

By _____
Secretary/Assistant Secretary

Dated _____

APPROVED AS TO FORM:

By _____
Legal Counsel, IRWD

Dated _____

CITY OF IRVINE
A Municipal Corporation

By _____
Grace Leung
Acting City Manager of the City of Irvine

Dated _____

By _____
Manuel Gomez
Director of Public Works

Dated _____

ATTEST:

By _____
Molly McLaughlin
City Clerk of the City of Irvine

Dated _____

APPROVED AS TO FORM:

By  _____
Jeffrey Melching, RUTAN & TUCKER, LLP
City Attorney of the City of Irvine

Dated _____

EXHIBIT "A"

REIMBURSEMENT AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT (IRWD)
AND THE CITY OF IRVINE
FOR
CULVER DRIVE AND UNIVERSITY DRIVE INTERSECTION IMPROVEMENTS
CIP NO. 318030

ENGINEERS ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNITS	UNIT COST	EXTENDED AMOUNT
76	REMOVE AND DISPOSE OF WATER METER	2	EA	\$ 5,000.00	\$ 10,000.00
77	REMOVE AND DISPOSE OF FIRE HYDRANT	1	EA	\$ 7,500.00	\$ 7,500.00
78	REMOVE AND DISPOSE OF BLOW-OFF	1	EA	\$ 6,500.00	\$ 6,500.00
79	ADJUST WATER METER TO GRADE	1	EA	\$ 1,000.00	\$ 1,000.00
80	REMOVE AND REPLACE ALL IRWD WATER VALVE CANS TO GRADE PER IRWD SRD W-22 (CANS TO BE SUPPLIED BY IRWD)	7	EA	\$ 1,000.00	\$ 7,000.00
81	ADJUST IRWD SEWER MANHOLE COVER TO GRADE	1	EA	\$ 4,500.00	\$ 4,500.00
82	ADJUST IRWD RECYCLED WATER MANHOLE TO GRADE	1	EA	\$ 4,500.00	\$ 4,500.00
83	REMOVE AND DISPOSE OF BACKFLOW ASSEMBLY PER IRWD STD W-2	1	EA	\$ 7,000.00	\$ 7,000.00
84	REMOVE AND DISPOSE OF IRWD VENTS	2	EA	\$ 5,500.00	\$ 11,000.00
85	FURNISH AND INSTALL FIRE HYDRANT ASSEMBLY PER IRWD STD W-8	1	EA	\$18,500.00	\$ 18,500.00
86	FURNISH AND INSTALL 2" REDUCE PRESSURE PRINCIPAL BACK FLOW ASSEMBLY PER IRWD STD W-7	1	EA	\$18,500.00	\$ 18,500.00
87	FURNISH AND INSTALL 2" SERVICE AND METER PER IRWD STD W-2	1	EA	\$15,000.00	\$ 15,000.00
88	FURNISH AND INSTALL 2" TWO WIRE CATHODIC PROTECTION TEST STATION PER IRWD STD CP-1	1	EA	\$10,000.00	\$ 10,000.00
89	FURNISH AND INSTALL VAULT VENT ASSEMBLY IRWD STD G-7	2	EA	\$10,000.00	\$ 20,000.00
90	FURNISH AND INSTALL 4" BLOWOFF/BOTTOM DRAIN ASSEMBLY PER IRWD STD W-14	1	EA	\$14,000.00	\$ 14,000.00
91	FURNISH AND INSTALL 12" PVC C 900 WITH COUPLING PER IRWD STD W-19	19	LF	\$ 5,000.00	\$ 95,000.00
92	FURNISH AND INSTALL 6" RESILIENT WEDGE GATE VALVE ASSEMBLY PER IRWD STD W-22	2	EA	\$ 6,000.00	\$ 12,000.00
TOTAL CONSTRUCTION ESTIMATE					\$ 262,000.00
4% ADMINISTRATION FEE PER SECTION 5 OF AGREEMENT					\$ 10,480.00
TOTAL COSTS					\$ 272,480.00

BID TABULATION SUMMARY SHEET
Culver/University Intersection Improvements, CIP 318030

WITHDREW BID ON 5/4/18

				#1		#2		#3		#4		#5		#6			
				Engineer's Estimate		Klassic Engineering		Beador Construction Company, Inc.		Los Angeles Engineering		PUB Construction Inc.		Excel Paving Co.		All American Asphalt	
ITEM	WORK DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
1	MOBILIZATION	LS	1	\$150,000.00	\$150,000.00	\$210,000.00	\$210,000.00	\$203,468.00	\$203,468.00	\$453,500.50	\$453,500.50	\$45,000.00	\$45,000.00	\$190,000.00	\$190,000.00	\$64,810.71	\$64,810.71
2	PREPARE AND IMPLEMENT STORM WATER POLLUTION AND CONTROL PLANS (SWPPP) AND EROSION CONTROL PLAN	LS	1	\$40,000.00	\$40,000.00	\$44,000.00	\$44,000.00	\$50,000.00	\$50,000.00	\$27,000.00	\$27,000.00	\$30,000.00	\$30,000.00	\$24,000.00	\$24,000.00	\$25,000.00	\$25,000.00
3	CONSTRUCTION SCHEDULE (CRITICAL PATH METHOD)	LS	1	\$10,000.00	\$10,000.00	\$14,000.00	\$14,000.00	\$5,500.00	\$5,500.00	\$9,000.00	\$9,000.00	\$10,000.00	\$10,000.00	\$17,999.25	\$17,999.25	\$5,000.00	\$5,000.00
4	Specialty Item - TRAFFIC CONTROL	LS	1	\$160,000.00	\$160,000.00	\$62,000.00	\$62,000.00	\$115,000.00	\$115,000.00	\$130,000.00	\$130,000.00	\$90,000.00	\$90,000.00	\$269,269.00	\$269,269.00	\$387,000.00	\$387,000.00
5	CLEARING AND GRUBBING (INCLUDING FOR LANDSCAPING)	LS	1	\$100,000.00	\$100,000.00	\$43,000.00	\$43,000.00	\$125,000.00	\$125,000.00	\$123,000.00	\$123,000.00	\$75,000.00	\$75,000.00	\$230,000.00	\$230,000.00	\$125,000.00	\$125,000.00
6	REMOVE CURB AND GUTTER	LF	2,420	\$15.00	\$36,300.00	\$8.14	\$19,698.80	\$12.00	\$29,040.00	\$6.00	\$14,520.00	\$6.50	\$15,730.00	\$19.00	\$45,980.00	\$25.00	\$60,500.00
7	REMOVE AND DISPOSE CONCRETE PATHWAY	CY	60	\$200.00	\$12,000.00	\$250.00	\$15,000.00	\$120.00	\$7,200.00	\$100.00	\$6,000.00	\$370.00	\$22,200.00	\$114.00	\$6,840.00	\$265.00	\$15,900.00
8	REMOVE AC/AB	CY	1,300	\$50.00	\$65,000.00	\$71.23	\$92,599.00	\$72.00	\$93,600.00	\$66.00	\$85,800.00	\$70.00	\$91,000.00	\$115.00	\$149,500.00	\$170.00	\$221,000.00
9	REMOVE AND DISPOSE MEDIAN CURB AND GUTTER	LF	2,500	\$15.00	\$37,500.00	\$5.00	\$12,500.00	\$7.30	\$18,250.00	\$3.00	\$7,500.00	\$6.80	\$17,000.00	\$15.00	\$37,500.00	\$23.00	\$57,500.00
10	REMOVE AND DISPOSE OF SIGN	EA	2	\$50.00	\$100.00	\$100.00	\$200.00	\$270.00	\$540.00	\$100.00	\$200.00	\$4,000.00	\$8,000.00	\$277.00	\$554.00	\$150.00	\$300.00
11	REMOVE AND DISPOSE 18" RCP	LF	13	\$100.00	\$1,300.00	\$330.77	\$4,300.01	\$205.00	\$2,665.00	\$100.00	\$1,300.00	\$735.00	\$9,555.00	\$96.00	\$1,248.00	\$478.00	\$6,214.00
12	REMOVE AND DISPOSE CATCH BASIN	LS	1	\$1,000.00	\$1,000.00	\$5,500.00	\$5,500.00	\$2,750.00	\$2,750.00	\$1,000.00	\$1,000.00	\$8,500.00	\$8,500.00	\$2,500.00	\$2,500.00	\$3,721.00	\$3,721.00
13	REMOVE AND DISPOSE PARKWAY DRAIN	EA	1	\$10,000.00	\$10,000.00	\$7,500.00	\$7,500.00	\$550.00	\$550.00	\$500.00	\$500.00	\$10,000.00	\$10,000.00	\$1,300.00	\$1,300.00	\$1,595.00	\$1,595.00
14	REMOVE AND DISPOSE DOUBLE RCB PARAPET	LS	1	\$10,000.00	\$10,000.00	\$4,500.00	\$4,500.00	\$18,750.00	\$18,750.00	\$3,500.00	\$3,500.00	\$18,000.00	\$18,000.00	\$1,700.00	\$1,700.00	\$5,300.00	\$5,300.00
15	REMOVE AND DISPOSE DOUBLE RCB WINGWALL	LS	1	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$20,750.00	\$20,750.00	\$10,000.00	\$10,000.00	\$18,000.00	\$18,000.00	\$7,600.00	\$7,600.00	\$31,000.00	\$31,000.00
16	REMOVE AND DISPOSE RIPRAP SLOPE PROTECTION	CY	41	\$100.00	\$4,100.00	\$207.31	\$8,499.71	\$145.00	\$5,945.00	\$100.00	\$4,100.00	\$450.00	\$18,450.00	\$115.00	\$4,715.00	\$450.00	\$18,450.00
17	REMOVE AND DISPOSE GROUTED RIPRAP SLOPE PROTECTION	CY	31	\$40.00	\$1,240.00	\$338.71	\$10,500.01	\$145.00	\$4,495.00	\$100.00	\$3,100.00	\$500.00	\$15,500.00	\$155.00	\$4,805.00	\$530.00	\$16,430.00
18	REMOVE AND DISPOSE ABANDONED STREAM GAUGING STATION ENCLOSURE & FOUNDATION, AND ANTENNA POLE AND FOUNDATION	LS	1	\$3,000.00	\$3,000.00	\$12,500.00	\$12,500.00	\$2,700.00	\$2,700.00	\$5,000.00	\$5,000.00	\$26,000.00	\$26,000.00	\$2,300.00	\$2,300.00	\$2,700.00	\$2,700.00
19	REMOVE AND DISPOSE CHAIN-LINK FENCE AND GATE	LF	185	\$8.00	\$1,480.00	\$18.92	\$3,500.20	\$30.00	\$5,550.00	\$12.00	\$2,220.00	\$58.00	\$10,730.00	\$12.00	\$2,220.00	\$20.00	\$3,700.00
20	REMOVE AND DISPOSE SIDEWALK	SF	13,015	\$3.00	\$39,045.00	\$3.00	\$39,045.00	\$2.20	\$28,633.00	\$1.00	\$13,015.00	\$4.50	\$58,567.50	\$1.15	\$14,967.25	\$3.30	\$42,949.50
21	REMOVE AND DISPOSE CONCRETE RAMP	EA	1	\$500.00	\$500.00	\$2,000.00	\$2,000.00	\$1,625.00	\$1,625.00	\$100.00	\$100.00	\$8,500.00	\$8,500.00	\$1,100.00	\$1,100.00	\$2,500.00	\$2,500.00
22	REMOVE AND DISPOSE OF 4" THICK STAMPED CONCRETE	SF	1,515	\$5.00	\$7,575.00	\$2.98	\$4,514.70	\$3.50	\$5,302.50	\$1.00	\$1,515.00	\$8.50	\$12,877.50	\$9.00	\$13,635.00	\$3.30	\$4,999.50
23	REMOVE, SALVAGE AND INSTALL BUS SHELTER	LS	1	\$3,000.00	\$3,000.00	\$5,500.00	\$5,500.00	\$2,700.00	\$2,700.00	\$7,000.00	\$7,000.00	\$20,000.00	\$20,000.00	\$4,300.00	\$4,300.00	\$4,700.00	\$4,700.00
24	REMOVE AND RELOCATE SIGN	EA	7	\$200.00	\$1,400.00	\$100.00	\$700.00	\$270.00	\$1,890.00	\$200.00	\$1,400.00	\$1,500.00	\$10,500.00	\$380.00	\$2,660.00	\$300.00	\$2,100.00
25	CONSTRUCT ASPHALT CONCRETE (8" THICK)	TON	1,950	\$100.00	\$195,000.00	\$107.18	\$209,001.00	\$94.00	\$183,300.00	\$114.00	\$222,300.00	\$92.50	\$180,375.00	\$93.00	\$181,350.00	\$75.00	\$146,250.00
26	CONSTRUCT CLASS 2 AGGREGATE BASE (12" THICK)	TON	2,800	\$40.00	\$112,000.00	\$22.85	\$63,980.00	\$46.00	\$128,800.00	\$36.00	\$100,800.00	\$30.00	\$84,000.00	\$43.00	\$120,400.00	\$38.00	\$106,400.00
27	CONSTRUCT TYPE A-2 CURB AND GUTTER PER COI STD PLAN 200	LF	2,430	\$30.00	\$72,900.00	\$45.00	\$109,350.00	\$30.00	\$72,900.00	\$30.00	\$72,900.00	\$30.00	\$72,900.00	\$53.00	\$128,790.00	\$42.50	\$103,275.00
28	CONSTRUCT TYPE B-8 MEDIAN CURB PER COI STD. PLAN 209	LF	2,470	\$20.00	\$49,400.00	\$45.00	\$111,150.00	\$27.50	\$67,925.00	\$22.00	\$54,340.00	\$22.00	\$54,340.00	\$29.00	\$71,630.00	\$30.00	\$74,100.00
29	CONSTRUCT CURB TRANSITION FROM 6" CURB to 8" CURB	LF	20	\$50.00	\$1,000.00	\$40.00	\$800.00	\$65.00	\$1,300.00	\$50.00	\$1,000.00	\$410.00	\$8,200.00	\$43.00	\$860.00	\$180.00	\$3,600.00
30	FURNISH AND INSTALL 6' CHAIN LINK FENCE WITH BLACK VINYL COATING PER SPPWC STD PLAN 600-3	LF	200	\$50.00	\$10,000.00	\$65.00	\$13,000.00	\$80.00	\$16,000.00	\$50.00	\$10,000.00	\$87.00	\$17,400.00	\$130.00	\$26,000.00	\$75.00	\$15,000.00

BID TABULATION SUMMARY SHEET

Culver/University Intersection Improvements, CIP 318030

WITHDREW BID ON 5/2/18

				#1			#2			#3			#4			#5			#6
				Engineer's Estimate		Klassic Engineering		Beador Construction Company, Inc.		Los Angeles Engineering		PUB Construction Inc.		Excel Paving Co.		All American Asphalt			
ITEM	WORK DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL		
31	CONSTRUCT 4" THICK PCC SIDEWALK PER COI STD PLAN 201	SF	12,100	\$7.00	\$84,700.00	\$8.43	\$102,003.00	\$5.00	\$60,500.00	\$7.00	\$84,700.00	\$10.25	\$124,025.00	\$9.00	\$108,900.00	\$7.00	\$84,700.00		
32	CONSTRUCT CURB ACCESS RAMP (ECR TO BCR) PER COI STD PLAN 202	EA	4	\$3,000.00	\$12,000.00	\$4,000.00	\$16,000.00	\$6,000.00	\$24,000.00	\$5,400.00	\$21,600.00	\$12,000.00	\$48,000.00	\$4,500.00	\$18,000.00	\$10,000.00	\$40,000.00		
33	CONSTRUCT DRIVEWAY APPROACH TYPE I PER COI STD PLAN 204	SF	260	\$20.00	\$5,200.00	\$10.00	\$2,600.00	\$32.00	\$8,320.00	\$15.00	\$3,900.00	\$68.00	\$17,680.00	\$23.00	\$5,980.00	\$18.00	\$4,680.00		
34	CONSTRUCT BUS PAD PER OCTA FIGURES 22A & 23 AND COI STD PLAN 209	SF	1,010	\$20.00	\$20,200.00	\$12.00	\$12,120.00	\$19.00	\$19,190.00	\$11.00	\$11,110.00	\$19.00	\$19,190.00	\$23.00	\$23,230.00	\$21.00	\$21,210.00		
35	CONSTRUCT 6" THICK PCC PATHWAY	SF	2,510	\$10.00	\$25,100.00	\$8.00	\$20,080.00	\$8.00	\$20,080.00	\$7.00	\$17,570.00	\$16.50	\$41,415.00	\$13.50	\$33,885.00	\$11.00	\$27,610.00		
36	CONSTRUCT FULL DEPTH AC PAVEMENT SECTION (17" THICK)	TON	136	\$100.00	\$13,600.00	\$242.64	\$32,999.04	\$100.00	\$13,600.00	\$240.00	\$32,640.00	\$213.00	\$28,968.00	\$170.00	\$23,120.00	\$215.00	\$29,240.00		
37	COLD PLANE EXISTING PAVEMENT (VARYING DEPTH, 0.12' MIN)	SF	106,600	\$1.00	\$106,600.00	\$0.26	\$27,716.00	\$0.30	\$31,980.00	\$0.25	\$26,650.00	\$0.45	\$47,970.00	\$0.35	\$37,310.00	\$0.42	\$44,772.00		
38	CONSTRUCT 0.12' MIN ARHM SURFACE COURSE	TON	1,000	\$100.00	\$100,000.00	\$100.00	\$100,000.00	\$94.00	\$94,000.00	\$103.98	\$103,980.00	\$145.00	\$145,000.00	\$97.00	\$97,000.00	\$87.45	\$87,450.00		
39	UNCLASSIFIED EXCAVATION	CY	5,730	\$70.00	\$401,100.00	\$8.00	\$45,840.00	\$43.00	\$246,390.00	\$40.00	\$229,200.00	\$30.00	\$171,900.00	\$71.00	\$406,830.00	\$50.00	\$286,500.00		
40	UNCLASSIFIED FILL	CY	730	\$50.00	\$36,500.00	\$12.33	\$9,000.90	\$34.00	\$24,820.00	\$29.00	\$21,170.00	\$55.00	\$40,150.00	\$51.00	\$37,230.00	\$40.00	\$29,200.00		
41	CONSTRUCT RETAINING WALL TYPE 6 PER SPPWC STD PLAN 615-4	LF	195	\$150.00	\$29,250.00	\$349.00	\$68,055.00	\$985.00	\$192,075.00	\$800.00	\$156,000.00	\$858.00	\$167,310.00	\$560.00	\$109,200.00	\$1,150.00	\$224,250.00		
42	CONSTRUCT 6" RETAINING CURB TYPE "B-6" PER COI STD PLAN NO 200	LF	66	\$50.00	\$3,300.00	\$45.00	\$2,970.00	\$65.00	\$4,290.00	\$50.00	\$3,300.00	\$135.00	\$8,910.00	\$54.00	\$3,564.00	\$26.00	\$1,716.00		
43	CONSTRUCT 18" RCP PER COI STD PLAN NO. 318	LF	25	\$250.00	\$6,250.00	\$50.00	\$1,250.00	\$540.00	\$13,500.00	\$350.00	\$8,750.00	\$420.00	\$10,500.00	\$218.00	\$5,450.00	\$900.00	\$22,500.00		
44	CONSTRUCT CATCH BASIN TYPE I (W=3.5') WITH LOCAL DEPRESSION, PER COI STD PLAN 300	EA	1	\$4,000.00	\$4,000.00	\$12,000.00	\$12,000.00	\$7,000.00	\$7,000.00	\$4,500.00	\$4,500.00	\$14,570.00	\$14,570.00	\$7,000.00	\$7,000.00	\$9,000.00	\$9,000.00		
45	CONSTRUCT CATCH BASIN TYPE II (W=14.0') WITH LOCAL DEPRESSION, PER COI STD PLAN 301 (W=14.0')	EA	1	\$7,500.00	\$7,500.00	\$12,000.00	\$12,000.00	\$11,825.00	\$11,825.00	\$13,500.00	\$13,500.00	\$18,420.00	\$18,420.00	\$9,700.00	\$9,700.00	\$13,300.00	\$13,300.00		
46	Specialty Item - INSTALL FILTERRA BIOFILTRATION SYSTEM (MODEL: FT1606)	EA	2	\$56,662.50	\$113,325.00	\$10,000.00	\$20,000.00	\$62,000.00	\$124,000.00	\$55,000.00	\$110,000.00	\$30,000.00	\$60,000.00	\$54,000.00	\$108,000.00	\$66,666.00	\$133,332.00		
47	CONSTRUCT CONCRETE COLLAR PER IRVINE STD PLAN NO. 310	EA	1	\$1,000.00	\$1,000.00	\$120.00	\$120.00	\$1,075.00	\$1,075.00	\$900.00	\$900.00	\$9,000.00	\$9,000.00	\$1,100.00	\$1,100.00	\$1,065.00	\$1,065.00		
48	Final Pay Item - CONSTRUCT DOUBLE 15'x8' RCB EXTENSION	CY	180	\$560.00	\$100,800.00	\$100.00	\$18,000.00	\$1,215.00	\$218,700.00	\$1,000.00	\$180,000.00	\$1,580.00	\$284,400.00	\$970.00	\$174,600.00	\$1,635.00	\$294,300.00		
49	Final Pay Item - CONSTRUCT WARPED WINGWALL TYPE B , PER SSPWC STD PLAN 611-3	CY	75	\$630.00	\$47,250.00	\$120.00	\$9,000.00	\$2,500.00	\$187,500.00	\$1,000.00	\$75,000.00	\$1,975.00	\$148,125.00	\$1,400.00	\$105,000.00	\$2,015.00	\$151,125.00		
50	Final Pay Item - PLACE 1/4 TON ROCK SLOPE PROTECTION	CY	50	\$90.00	\$4,500.00	\$300.00	\$15,000.00	\$205.00	\$10,250.00	\$145.00	\$7,250.00	\$650.00	\$32,500.00	\$206.00	\$10,300.00	\$320.00	\$16,000.00		
51	CONTRUCT CHAIN LINK GATE PER OCPW STD PLAN 600-3	EA	1	\$500.00	\$500.00	\$2,500.00	\$2,500.00	\$4,000.00	\$4,000.00	\$2,200.00	\$2,200.00	\$8,800.00	\$8,800.00	\$2,700.00	\$2,700.00	\$600.00	\$600.00		
52	CONSTRUCT JUNCTION STRUCTURE TYPE V PER OCPW STD PLAN 333-2-OC	EA	1	\$2,500.00	\$2,500.00	\$3,500.00	\$3,500.00	\$2,150.00	\$2,150.00	\$5,100.00	\$5,100.00	\$6,900.00	\$6,900.00	\$4,100.00	\$4,100.00	\$5,400.00	\$5,400.00		
53	Specialty Item - MODIFY EXISTING & INSTALL NEW IRRIGATION SYSTEM	SF	21,600	\$2.50	\$54,000.00	\$4.40	\$95,040.00	\$4.40	\$95,040.00	\$3.50	\$75,600.00	\$5.50	\$118,800.00	\$4.15	\$89,640.00	\$3.77	\$81,432.00		
54	Specialty Item - REMOVE AND DISPOSE OF IRRIGATION CONTROL VALVE	EA	3	\$500.00	\$1,500.00	\$100.00	\$300.00	\$107.00	\$321.00	\$800.00	\$2,400.00	\$4,000.00	\$12,000.00	\$166.00	\$498.00	\$160.00	\$480.00		
55	Specialty Item - 24" BOX TREES	EA	33	\$300.00	\$9,900.00	\$364.00	\$12,012.00	\$325.00	\$10,725.00	\$320.00	\$10,560.00	\$930.00	\$30,690.00	\$388.00	\$12,804.00	\$375.00	\$12,375.00		
56	Specialty Item - 36" BOX TREES	EA	12	\$550.00	\$6,600.00	\$1,000.00	\$12,000.00	\$900.00	\$10,800.00	\$820.00	\$9,840.00	\$3,200.00	\$38,400.00	\$833.00	\$9,996.00	\$797.00	\$9,564.00		
57	Specialty Item - 15 GALLON TREE	EA	11	\$200.00	\$2,200.00	\$350.00	\$3,850.00	\$195.00	\$2,145.00	\$200.00	\$2,200.00	\$800.00	\$8,800.00	\$133.00	\$1,463.00	\$127.00	\$1,397.00		
58	Specialty Item - 5 GALLON SHRUB	EA	1,663	\$18.00	\$29,934.00	\$26.00	\$43,238.00	\$22.00	\$36,586.00	\$18.00	\$29,934.00	\$50.00	\$83,150.00	\$20.00	\$33,260.00	\$20.00	\$33,260.00		

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Culver/University Intersection Improvements, CIP 318030

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				#1			#2			#3			#4			#5			#6
				Engineer's Estimate		Klassic Engineering		Beador Construction Company, Inc.		Los Angeles Engineering		PUB Construction Inc.		Excel Paving Co.		All American Asphalt			
ITEM	WORK DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL		
59	Specialty Item - 1 GALLON SHRUB	EA	3,653	\$12.00	\$43,836.00	\$12.00	\$43,836.00	\$11.00	\$40,183.00	\$8.00	\$29,224.00	\$13.00	\$47,489.00	\$11.00	\$40,183.00	\$11.00	\$40,183.00		
60	Specialty Item - ROOT BARRIER	LF	2,700	\$10.00	\$27,000.00	\$9.00	\$24,300.00	\$8.00	\$21,600.00	\$9.00	\$24,300.00	\$6.00	\$16,200.00	\$8.50	\$22,950.00	\$8.24	\$22,248.00		
61	Specialty Item - MULCH - 2" THICK	SF	16,400	\$0.16	\$2,624.00	\$0.55	\$9,020.00	\$0.60	\$9,840.00	\$0.40	\$6,560.00	\$2.00	\$32,800.00	\$0.55	\$9,020.00	\$0.53	\$8,692.00		
62	Specialty Item - INSTALL LAWN SOD - MATCH EXISTING	SF	2,100	\$0.65	\$1,365.00	\$3.00	\$6,300.00	\$2.30	\$4,830.00	\$3.00	\$6,300.00	\$6.00	\$12,600.00	\$1.50	\$3,150.00	\$1.38	\$2,898.00		
63	4" THICK DISINTEGRATED GRANITE	SF	375	\$5.00	\$1,875.00	\$10.00	\$3,750.00	\$4.30	\$1,612.50	\$9.00	\$3,375.00	\$26.00	\$9,750.00	\$4.50	\$1,687.50	\$5.00	\$1,875.00		
64	Specialty Item - SOIL PREPARATION & FINE GRADING	SF	16,400	\$0.50	\$8,200.00	\$0.55	\$9,020.00	\$0.50	\$8,200.00	\$0.85	\$13,940.00	\$1.00	\$16,400.00	\$0.75	\$12,300.00	\$0.69	\$11,316.00		
65	Specialty Item - PLACE NON-IRRIGATED HYDROSEED MIX	SF	23,650	\$0.18	\$4,257.00	\$0.20	\$4,730.00	\$0.30	\$7,095.00	\$0.15	\$3,547.50	\$0.70	\$16,555.00	\$0.20	\$4,730.00	\$0.16	\$3,784.00		
66	Specialty Item - 90 WORKING DAY PLANT ESTABLISHMENT AND LANDSCAPE MAINTENANCE PERIOD	LS	1	\$6,000.00	\$6,000.00	\$4,000.00	\$4,000.00	\$3,225.00	\$3,225.00	\$15,000.00	\$15,000.00	\$30,000.00	\$30,000.00	\$3,800.00	\$3,800.00	\$3,725.00	\$3,725.00		
67	Specialty Item - FURNISH AND INSTALL CONDUIT, 3" DB 60	LF	1,445	\$30.00	\$43,350.00	\$53.00	\$76,585.00	\$30.00	\$43,350.00	\$52.00	\$75,140.00	\$42.00	\$60,690.00	\$61.00	\$88,145.00	\$60.00	\$86,700.00		
68	Specialty Item - FURNISH AND INSTALL CONDUIT, 1.5" DB 60	LF	153	\$25.00	\$3,825.00	\$32.00	\$4,896.00	\$28.00	\$4,284.00	\$30.00	\$4,590.00	\$66.00	\$10,098.00	\$30.00	\$4,590.00	\$27.00	\$4,131.00		
69	Specialty Item - FURNISH AND INSTALL "INTERCEPT" 13x24x24 STREET LIGHT HAND HOLE	EA	2	\$1,000.00	\$2,000.00	\$1,500.00	\$3,000.00	\$1,075.00	\$2,150.00	\$1,150.00	\$2,300.00	\$3,780.00	\$7,560.00	\$1,100.00	\$2,200.00	\$1,050.00	\$2,100.00		
70	Specialty Item - FURNISH AND INSTALL 13x24x24 STREET LIGHT HAND HOLE	EA	8	\$650.00	\$5,200.00	\$812.00	\$6,496.00	\$805.00	\$6,440.00	\$650.00	\$5,200.00	\$1,425.00	\$11,400.00	\$832.00	\$6,656.00	\$800.00	\$6,400.00		
71	Specialty Item - TRAFFIC SIGNAL MODIFICATIONS & TEMPORARY OVERHEAD WIRING FOR EXISTING TRAFFIC SIGNAL SYSTEM	LS	1	\$300,000.00	\$300,000.00	\$416,000.00	\$416,000.00	\$295,000.00	\$295,000.00	\$346,500.00	\$346,500.00	\$355,820.00	\$355,820.00	\$348,000.00	\$348,000.00	\$316,425.42	\$316,425.42		
72	Specialty Item - TRAFFIC SIGNAL INTERCONNECT SYSTEM	LS	1	\$100,000.00	\$100,000.00	\$158,000.00	\$158,000.00	\$85,000.00	\$85,000.00	\$168,000.00	\$168,000.00	\$150,000.00	\$150,000.00	\$163,000.00	\$163,000.00	\$149,736.00	\$149,736.00		
73	Specialty Item - TRAFFIC SIGNING, STRIPING, MARKINGS, AND MARKERS	LS	1	\$35,000.00	\$35,000.00	\$20,000.00	\$20,000.00	\$30,000.00	\$30,000.00	\$45,000.00	\$45,000.00	\$36,820.00	\$36,820.00	\$36,000.00	\$36,000.00	\$30,000.00	\$30,000.00		
74	PROTECT IN PLACE EXISTING GAS LINES	LS	1	\$9,500.00	\$9,500.00	\$6,000.00	\$6,000.00	\$16,000.00	\$16,000.00	\$3,000.00	\$3,000.00	\$8,000.00	\$8,000.00	\$12,000.00	\$12,000.00	\$1,000.00	\$1,000.00		
75	FURNISH AND INSTALL "ORANGE" CONSTRUCTION FENCING	LF	2,300	\$4.00	\$9,200.00	\$4.00	\$9,200.00	\$5.00	\$11,500.00	\$3.00	\$6,900.00	\$4.00	\$9,200.00	\$9.00	\$20,700.00	\$23.00	\$52,900.00		
Total Base Bid Price					\$ 2,977,381.00		\$2,643,165.37		\$3,287,300.00		\$3,380,041.00		\$3,643,280.00		\$3,824,694.00		\$3,967,566.13		
Additive Bid Items																			
76	REMOVE AND DISPOSE OF WATER METER	EA	2	\$250.00	\$500.00	\$1,000.00	\$2,000.00	\$5,000.00	\$10,000.00	\$500.00	\$1,000.00	\$2,800.00	\$5,600.00	\$300.00	\$600.00	\$1,313.00	\$2,626.00		
77	REMOVE AND DISPOSE OF FIRE HYDRANT	EA	1	\$2,500.00	\$2,500.00	\$2,000.00	\$2,000.00	\$7,500.00	\$7,500.00	\$3,600.00	\$3,600.00	\$5,500.00	\$5,500.00	\$3,000.00	\$3,000.00	\$3,900.00	\$3,900.00		
78	REMOVE AND DISPOSE OF BLOW-OFF	EA	1	\$500.00	\$500.00	\$800.00	\$800.00	\$6,500.00	\$6,500.00	\$2,000.00	\$2,000.00	\$6,900.00	\$6,900.00	\$3,000.00	\$3,000.00	\$5,600.00	\$5,600.00		
79	ADJUST WATER METER TO GRADE	EA	1	\$600.00	\$600.00	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$600.00	\$600.00	\$4,000.00	\$4,000.00	\$650.00	\$650.00	\$165.00	\$165.00		
80	REMOVE AND REPLACE ALL IRWD WATER VALVE CAN TO GRADE PER IRWD SRD W-22 (CANS TO BE SUPPLIED BY IRWD)	EA	7	\$1,250.00	\$8,750.00	\$929.00	\$6,503.00	\$1,000.00	\$7,000.00	\$350.00	\$2,450.00	\$4,200.00	\$29,400.00	\$700.00	\$4,900.00	\$1,500.00	\$10,500.00		
81	ADJUST IRWD SEWER MANHOLE COVER TO GRADE	EA	1	\$2,200.00	\$2,200.00	\$3,000.00	\$3,000.00	\$4,500.00	\$4,500.00	\$600.00	\$600.00	\$4,280.00	\$4,280.00	\$1,200.00	\$1,200.00	\$1,400.00	\$1,400.00		
82	ADJUST IRWD RECYCLED WATER MANHOLE TO GRADE	EA	1	\$2,200.00	\$2,200.00	\$4,150.00	\$4,150.00	\$4,500.00	\$4,500.00	\$600.00	\$600.00	\$4,720.00	\$4,720.00	\$1,200.00	\$1,200.00	\$1,400.00	\$1,400.00		
83	REMOVE AND DISPOSE OF BACKFLOW ASSEMBLY PER IRWD STD W-2	EA	1	\$900.00	\$900.00	\$1,850.00	\$1,850.00	\$7,000.00	\$7,000.00	\$1,100.00	\$1,100.00	\$5,380.00	\$5,380.00	\$730.00	\$730.00	\$1,400.00	\$1,400.00		
84	REMOVE AND DISPOSE OF IRWD VENTS	EA	2	\$450.00	\$900.00	\$2,000.00	\$4,000.00	\$5,500.00	\$11,000.00	\$5,300.00	\$10,600.00	\$3,350.00	\$6,700.00	\$2,222.00	\$4,444.00	\$1,400.00	\$2,800.00		
85	FURNISH AND INSTALL FIRE HYDRANT ASSEMBLY PER IRWD STD W-8	EA	1	\$9,200.00	\$9,200.00	\$16,800.00	\$16,800.00	\$18,500.00	\$18,500.00	\$10,000.00	\$10,000.00	\$10,550.00	\$10,550.00	\$11,760.00	\$11,760.00	\$18,000.00	\$18,000.00		

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				Engineer's Estimate		Klassic Engineering		Beador Construction Company, Inc.		Los Angeles Engineering		PUB Construction Inc.		Excel Paving Co.		All American Asphalt	
ITEM	WORK DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
86	FURNISH AND INSTALL 2" REDUCE PRESSURE PRINCIPAL BACK FLOW ASSEMBLY PER IRWD STD W-7	EA	1	\$5,500.00	\$5,500.00	\$14,850.00	\$14,850.00	\$18,500.00	\$18,500.00	\$1,250.00	\$1,250.00	\$13,850.00	\$13,850.00	\$3,900.00	\$3,900.00	\$10,389.87	\$10,389.87
87	FURNISH AND INSTALL 2" SERVICE AND METER PER IRWD STD W-2	EA	1	\$3,300.00	\$3,300.00	\$13,800.00	\$13,800.00	\$15,000.00	\$15,000.00	\$5,250.00	\$5,250.00	\$9,780.00	\$9,780.00	\$7,350.00	\$7,350.00	\$17,000.00	\$17,000.00
88	FURNISH AND INSTALL 2" TWO WIRE CATHODIC PROTECTION TEST STATION PER IRWD STD CP-1	EA	1	\$8,000.00	\$8,000.00	\$12,800.00	\$12,800.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$8,215.00	\$8,215.00	\$6,800.00	\$6,800.00	\$8,500.00	\$8,500.00
89	FURNISH AND INSTALL VAULT VENT ASSEMBLY IRWD STD G-7	EA	2	\$6,000.00	\$12,000.00	\$1,800.00	\$3,600.00	\$10,000.00	\$20,000.00	\$14,000.00	\$28,000.00	\$5,500.00	\$11,000.00	\$10,800.00	\$21,600.00	\$10,500.00	\$21,000.00
90	FURNISH AND INSTALL 4" BLOWOFF/BOTTOM DRAIN ASSEMBLY PER IRWD STD W-14	EA	1	\$4,000.00	\$4,000.00	\$6,500.00	\$6,500.00	\$14,000.00	\$14,000.00	\$26,600.00	\$26,600.00	\$30,000.00	\$30,000.00	\$19,000.00	\$19,000.00	\$26,500.00	\$26,500.00
91	FURNISH AND INSTALL 12" PVC C 900 WITH COUPLING PER IRWD STD W-19	LF	19	\$100.00	\$1,900.00	\$292.00	\$5,548.00	\$5,000.00	\$95,000.00	\$1,200.00	\$22,800.00	\$550.00	\$10,450.00	\$435.00	\$8,265.00	\$1,063.00	\$20,197.00
92	FURNISH AND INSTALL 6" RESILIENT WEDGE GATE VALVE ASSEMBLY PER IRWD STD W-22	EA	2	\$3,500.00	\$7,000.00	\$2,500.00	\$5,000.00	\$6,000.00	\$12,000.00	\$9,600.00	\$19,200.00	\$14,900.00	\$29,800.00	\$2,111.00	\$4,222.00	\$12,600.00	\$25,200.00
	Total Additive Bid Items				\$69,950.00		\$105,201.00		\$262,000.00		\$145,650.00		\$196,125.00		\$102,621.00		\$176,577.87
	Total Base Bid + Additive Bid						\$2,748,366.37		\$3,549,300.00		\$3,525,691.00		\$3,839,405.00		\$3,927,315.00		\$4,144,144.00

Revised Project Funding Summary
Culver/University Intersection Improvements
CIP 318030

July 10, 2018

Project Expenditures

Design Engineering	\$ 1,200,800
Construction Contract - City	\$ 3,287,300
Construction Contract - IRWD	\$ 262,000
Construction Engineering - City	\$ 370,500
Construction Engineering - IRWD	\$ 10,480
Construction Contingency	<u>\$ 300,000</u>
Total Estimated Project Cost	\$ 5,431,080

Project Funding

CIP 318030 - Culver/University Intersection Improvements	\$ 5,158,600
IRWD Reimbursement Funds	<u>\$ 272,480</u>
Total Funding Available	\$ 5,431,080

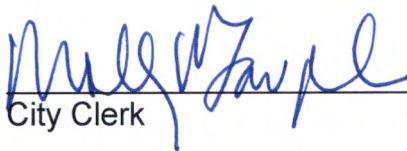
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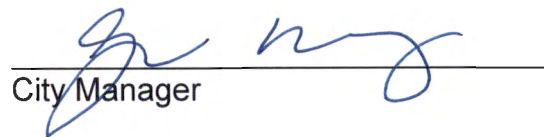


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: SECOND READING OF ORDINANCE NO. 18-07 DIRECTING AN AMENDMENT TO THE "CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS," AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS


City Clerk


City Manager

RECOMMENDED ACTION

Read by title only, second reading and adoption of ORDINANCE NO. 18-07 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DIRECTING AN AMENDMENT TO THE "CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS," AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS

EXECUTIVE SUMMARY

Ordinance No. 18-07 was introduced and first read on June 26, 2018 by the City Council. The vote at the first reading was as follows:

AYES: 4 COUNCILMEMBERS: Fox, Lalloway, Shea and Wagner

NOES: 0 COUNCILMEMBERS: None

ABSENT: 1 COUNCILMEMBERS: Schott

ABSTAIN: 0 COUNCILMEMBERS: None

Unless otherwise directed by a Member of the City Council, the vote at second reading will reflect the same vote as at first reading. However, if a Councilmember was absent at first reading, his or her vote cast at second reading will be reflected. If a Councilmember is not present at the second reading/adoption, the vote will be reflected as absent.

ATTACHMENT

City Council Ordinance No. 18-07

CITY COUNCIL ORDINANCE NO. 18-07

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DIRECTING AN AMENDMENT TO THE "CITY OF IRVINE ENGINEERING AND TRAFFIC SURVEYS FOR SPEED LIMITS," AS MAINTAINED BY THE CITY ENGINEER AS THE OFFICIAL DOCUMENTATION OF DECLARED PRIMA FACIE SPEED LIMITS

WHEREAS, California Vehicle Code Section 22357 provides that a local authority may, by ordinance, determine and declare that the speed limit on any portion of any street, other than a state highway, which would otherwise be subject to a *prima facie* speed limit of 25 miles per hour shall be increased to a *prima facie* speed limit of 30, 35, 40, 45, 50, 55, 60, or 65 miles per hour, if an engineering and traffic study indicates that such increase would facilitate the orderly movement of traffic and would be reasonable and safe; and

WHEREAS, California Vehicle Code Section 22358 provides that a local authority may, by ordinance determine and declare, that the speed limit on any portion of any street, other than a state highway, which would otherwise be subject to a *prima facie* speed limit of 65 miles per hour shall be reduced to a *prima facie* speed limit of 60, 55, 50, 45, 40 35, 30, or 25, miles per hour, if an engineering and traffic survey indicates that the *prima facie* speed limit of 65 miles per hour is faster than what is deemed reasonable and safe; and

WHEREAS, California Vehicle Code Sections 22357 and 22358 provide that whenever a local authority has designated a *prima facie* speed limit on any portion of any street other than the *prima facie* limits applicable therein, the limits shall be effective upon the local authority erecting upon the applicable street appropriate signs giving notice thereof; and

WHEREAS, the City Council of the City of Irvine amended the Municipal Code with the adoption of Ordinance No. 01-05 removing the list of streets and *prima facie* speed limits and establishing an official list of streets and *prima facie* speed limits that shall be maintained by the City Engineer; and

WHEREAS, the City Council of the City of Irvine has considered information presented by staff, and other interested parties at a public meeting held on June 26, 2018.

NOW, THEREFORE, the City Council of the City of Irvine DOES HEREBY ORDAIN as follows:

SECTION 1. The *City of Irvine Engineering and Traffic Surveys for Speed Limits* as maintained by the City Engineer, shall be amended to include *prima facie* speed limit postings in accordance with those new entries as shown in the attached Exhibit A titled the *City of Irvine Engineering and Traffic Surveys for Speed Limits*, dated May 2018.

SECTION 2. This Ordinance shall be posted in accordance with the provisions of the Irvine Municipal Code and shall become effective thirty (30) days from and after the date of its passage.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the __ day of _____, 2018.

MAYOR OF THE CITY OF IRVINE

ATTEST:

CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing ordinance was introduced for first reading on the 26th day of June, 2018, and duly adopted at a regular meeting of the City Council of the City of Irvine, held on the ____ day of _____, 2018.

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

ABSTAIN: COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE

Street	From	To	Direction	Existing Posted Speed	85th Percentile	Survey Date	Recommended Posted Speed
<u>Alton Pkwy</u>	Pullman Street	Red Hill Ave	EB	45 mph	44 mph	6/25/2015	
	Pullman Street	Red Hill Ave	WB	<>	<>	<>	
	Red Hill Ave	Von Karman Ave	EW	50 mph	53 mph	12/6/2017	No Change
	Von Karman Ave	Jamboree Rd	EW	45 mph	46 mph	12/6/2017	No Change
	Jamboree Rd	Harvard Ave	EB	50 mph	46 mph	9/22/2015	
	Jamboree Rd	Harvard Ave	WB	50 mph	45 mph	9/22/2015	
	Harvard Ave	Culver Dr	EW	50 mph	53 mph	8/9/2016	
	Culver Dr	Lake Rd	EB	45 mph	48 mph	11/12/2015	
	Culver Dr	Lake Rd	WB	45 mph	45 mph	11/12/2015	
	Lake Rd	Creek Rd	EB	50 mph	48 mph	9/16/2015	
	Lake Rd	Creek Rd	WB	50 mph	50 mph	9/16/2015	
	Creek Rd	Jeffrey Rd	EW	50 mph	49 mph	8/8/2016	
	Jeffrey Rd	Sand Canyon Ave	EB	50 mph	49 mph	8/22/2014	
	Jeffrey Rd	Sand Canyon Ave	WB	50 mph	54 mph	8/22/2014	
	Sand Canyon Ave	Banting	EB	50 mph	48 mph	5/20/2015	
	Sand Canyon Ave	Banting	WB	50 mph	50 mph	5/20/2015	
	Banting	Irvine Center Dr	EB	50 mph	47 mph	9/17/2014	
	Banting	Irvine Center Dr	WB	50 mph	46 mph	9/17/2014	
	Irvine Center Dr	Technology Dr West	EB	45 mph	43 mph	5/20/2015	
	Irvine Center Dr	Technology Dr West	WB	45 mph	48 mph	5/20/2015	
	Technology Dr West	Barranca Pkwy	NB	55 mph	59 mph	8/25/2014	
	Technology Dr West	Barranca Pkwy	SB	55 mph	57 mph	8/25/2014	
	Barranca Pkwy	Jeronimo Rd	NB	50 mph	53 mph	8/26/2014	
	Barranca Pkwy	Jeronimo Rd	SB	50 mph	50 mph	8/26/2014	
	Jeronimo Rd	Toledo Way	NB	50 mph	52 mph	10/31/2014	
	Jeronimo Rd	Toledo Way	SB	50 mph	54 mph	10/31/2014	
	Toledo Way	Irvine Blvd	NB	55 mph	58 mph	6/5/2014	
	Toledo Way	Irvine Blvd	SB	55 mph	57 mph	6/5/2014	
	Irvine Blvd	Commercentre	NS	60 mph	64 mph	11/8/2016	
<u>Arborwood</u>	Canyonwood	Yale Ave	NON	35 mph	36 mph	12/12/2017	No Change
<u>Armstrong Ave</u>	Alton Pkwy	Barranca Pkwy	NON	40 mph	44 mph	5/10/2016	
<u>Auto Center Dr</u>	Oldfield	Oldfield	NON	30 mph	32 mph	12/7/2017	No Change
<u>Bake Parkway</u>	Lake Forest Dr	Irvine Center Dr	EW	50 mph	53 mph	12/7/2017	No Change
	Irvine Center Dr	Rockfield Blvd	NS	55 mph	53 mph	12/7/2017	50 mph
	Rockfield Blvd	Jeronimo	NS	55 mph	58 mph	12/7/2017	No Change

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**City of Irvine Engineering and Traffic Surveys for Speed Limits
May 2018
Master List of Survey Data Results**

Street	From	To	Direction	Existing Posted Speed	85th Percentile	Survey Date	Recommended Posted Speed
<u>Barranca Pkwy</u>	Red Hill Ave	Von Karman Ave	EW	50 mph	55 mph	12/5/2017	55 mph
	Von Karman Ave	Jamboree Rd	EW	50 mph	55 mph	12/5/2017	55 mph
	Jamboree Rd	Harvard Ave	EW	50 mph	54 mph	12/5/2017	No Change
	Harvard Ave	Culver Dr	EW	45 mph	50 mph	12/5/2017	50 mph
	Culver Dr	Lake Rd	EW	45 mph	48 mph	10/6/2016	
	Lake Rd	Jeffrey Rd	EW	45 mph	47 mph	12/5/2017	No Change
	Jeffrey Rd	Sand Canyon Ave	EW	50 mph	54 mph	12/5/2017	No Change
	Sand Canyon Ave	Banting	EW	50 mph	53 mph	12/5/2017	No Change
	Banting	Irvine Center Dr	EW	50 mph	50 mph	12/5/2017	No Change
	Irvine Center Dr	Technology Dr West	EW	50 mph	54 mph	12/5/2017	No Change
	Technology Dr West	Ada	EW	55 mph	55 mph	7/2/2014	
	Ada	Alton Pkwy	EW	60 mph	59 mph	7/31/2014	
<u>Bay Tree</u>	Trabuco Rd	Roosevelt	NB	35 mph	39 mph	12/3/2015	
	Trabuco Rd	Roosevelt	SB	35 mph	39 mph	12/3/2015	
	Roosevelt	Starry Iris	NB	30 mph	35 mph	12/7/2015	
	Roosevelt	Starry Iris	SB	30 mph	35 mph	12/7/2015	
<u>Berkeley Ave</u>	Harvard Ave	Campus Dr	NS	35 mph	36 mph	12/6/2017	No Change
<u>Blue Lake North</u>	West Yale Loop	Blue Lake	NON	30 mph	31 mph	9/10/2013	
<u>Blue Lake South</u>	West Yale Loop	Blue Lake	NON	30 mph	35 mph	8/8/2012	
<u>Bonita Canyon Dr</u>	SR-73 NB Off-Ramp	Shady Canyon Dr	EW	50 mph	54 mph	9/29/2016	
<u>Bryan Ave</u>	Jamboree Rd	El Camino Real	EW	50 mph	47 mph	12/5/2017	45 mph
	El Camino Real	Culver Dr	EW	45 mph	47 mph	12/5/2017	No Change
	Culver Dr	Yale Ave	EW	45 mph	49 mph	12/5/2017	No Change
	Yale Ave	Jeffrey Rd	EW	45 mph	49 mph	12/5/2017	No Change
<u>Business Center Dr</u>	MacArthur Blvd	End	NON	35 mph	34 mph	12/15/2016	
<u>California Ave</u>	Academy	Innovation	NB	45 mph	50 mph	8/26/2015	
	Academy	Innovation	SB	45 mph	46 mph	8/26/2015	
	Innovation	Theory	NS	45 mph	49 mph	10/14/2016	

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City of Irvine Engineering and Traffic Surveys for Speed Limits
May 2018
Master List of Survey Data Results

Street	From	To	Direction	Existing Posted Speed	85th Percentile	Survey Date	Recommended Posted Speed
<u>Campus Dr</u>	MacArthur Blvd	Von Karman Ave	EB	<>	<>	<>	
	MacArthur Blvd	Von Karman Ave	WB	40 mph	43 mph	11/28/2017	No Change
	Von Karman Ave	Jamboree Rd	EB	<>	<>	<>	
	Von Karman Ave	Jamboree Rd	WB	45 mph	46 mph	11/28/2017	No Change
	Jamboree Rd	Carlson Ave	EW	45 mph	47 mph	11/28/2017	No Change
	Carlson Ave	University Dr	EW	55 mph	59 mph	11/28/2017	No Change
	University Dr	Culver Dr	EW	45 mph	47 mph	11/28/2017	No Change
	Culver Dr	Turtle Rock Dr	EW	45 mph	45 mph	8/9/2016	
<u>Carlson Ave</u>	Campus Dr	Michelson Dr	NS	50 mph/45 mph	51 mph	12/7/2017	50 mph
<u>Chesapeake</u>	Shiloh	Atlanta	EB	25 mph	32 mph	12/2/2013	
	Shiloh	Atlanta	WB	25 mph	32 mph	12/2/2013	
<u>Construction Circle E</u>	Construction South	Construction North	NB	35 mph	36 mph	8/8/2014	
	Construction South	Construction North	SB	35 mph	35 mph	8/8/2014	
<u>Construction Circle W</u>	Construction North	Construction South	NB	35 mph	34 mph	11/30/2015	
	Construction North	Construction South	SB	35 mph	33 mph	11/30/2015	
<u>Cornell</u>	Berkeley Ave	Campus Dr	NON	30 mph	29 mph	5/28/2014	
<u>Creek Rd</u>	Alton Pkwy	Barranca Pkwy	NB	35 mph	37 mph	5/27/2015	
	Alton Pkwy	Barranca Pkwy	SB	35 mph	37 mph	5/27/2015	
<u>Crested Bird</u>	Groveland	Medallion	EW	35 mph	35 mph	10/13/2016	

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**City of Irvine Engineering and Traffic Surveys for Speed Limits
May 2018
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Street	From	To	Direction	Existing Posted Speed	85th Percentile	Survey Date	Recommended Posted Speed
<u>Culver Dr</u>	Shady Canyon Dr	Vista Del Campo	NS	55 mph	58 mph	10/21/2016	
	Vista Del Campo	Campus Dr	NS	50 mph	53 mph	10/21/2016	
	Campus Dr	University Dr	NB	50 mph	45 mph	7/7/2013	
	Campus Dr	University Dr	SB	50 mph	49 mph	7/7/2013	
	University Dr	Michelson Dr	NS	45 mph	50 mph	11/30/2017	50 mph
	Michelson Dr	I-405 NB Ramps	NS	45 mph	49 mph	11/30/2017	50 mph
	I-405 NB Ramps	Main Street	NS	50 mph	55 mph	11/30/2017	55 mph
	Main Street	Alton Pkwy	NS	50 mph	56 mph	11/30/2017	55 mph
	Alton Pkwy	Barranca Pkwy	NS	45 mph	50 mph	11/30/2017	50 mph
	Barranca Pkwy	Warner Ave	NS	50 mph	53 mph	11/30/2017	No Change
	Warner Ave	Irvine Center Dr	NS	55 mph	56 mph	11/30/2017	No Change
	Irvine Center Dr	Deerfield Ave	NS	50 mph	52 mph	11/30/2017	No Change
	Deerfield Ave	Walnut Ave	NS	55 mph	55 mph	11/29/2017	No Change
	Walnut Ave	Trabuco Rd	NS	45 mph	46 mph	11/29/2017	No Change
	Trabuco Rd	Bryan Ave	NS	50 mph	53 mph	11/29/2017	No Change
	Bryan Ave	Irvine Blvd	NS	50 mph	54 mph	11/29/2017	No Change
	Irvine Blvd	Meadowood	NS	55 mph	58 mph	11/29/2017	No Change
<u>Culver Dr</u>	Meadowood	Portola Pkwy	NS	50 mph	53 mph	11/29/2017	No Change
	Portola Pkwy	Furrow	NS	40 mph	45 mph	11/29/2017	45 mph
<u>Deerfield Ave</u>	Harvard Ave	Culver Dr	NON	30 mph	34 mph	12/5/2017	No Change
	Culver Dr	Yale Ave	EW	30 mph	32 mph	5/16/2013	
	Yale Ave	Normandie	EW		33 mph	11/16/2017	30 mph
<u>Discovery</u>	Barranca Pkwy	Irvine Center Dr	NS		44 mph	3/1/2018	40 mph
	Irvine Center Dr	Laguna Canyon	EW		40 mph	3/1/2018	40 mph
<u>Dovecreek</u>	Royal Oak	Valley Oak	EW	35 mph	32 mph	12/5/2017	30 mph
<u>Dupont</u>	Michelson Dr	Von Karman Ave	EW	40 mph	41 mph	10/19/2016	
	Von Karman Ave	Jamboree Rd	EW	40 mph	44 mph	12/2/2016	
<u>Eastshore</u>	Woodspring	East Yale Loop	NON	35 mph	37 mph	9/28/2015	
<u>Eastwood</u>	Northwood	Southwood	NB	35 mph	35 mph	1/13/2012	
	Northwood	Southwood	SB	35 mph	37 mph	1/13/2012	

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May 2018
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<u>East Yale Loop</u>	Yale Ave North	Barranca Pkwy	NS	40 mph	43 mph	12/6/2017	No Change
	Barranca Pkwy	Alton Pkwy	NB	40 mph	43 mph	5/12/2016	
	Barranca Pkwy	Alton Pkwy	SB	40 mph	42 mph	5/12/2016	
	Alton Pkwy	Yale Ave South	N/S	40 mph	44 mph	5/16/2016	
<u>El Camino Real</u>	Jamboree Rd	SR-261	EB	40 mph	37 mph	8/20/2015	
	Jamboree Rd	SR-261	WB	40 mph	36 mph	8/20/2015	
	SR-261	Commerce	EB	45 mph	45 mph	7/2/2014	
	SR-261	Commerce	WB	45 mph	46 mph	7/2/2014	
<u>Fairchild</u>	Jamboree Rd	MacArthur Blvd	EW		48 mph	11/15/2017	45 mph
<u>Gateway</u>	Pacifica	Irvine Center Dr	EW		47 mph	3/6/2018	45 mph
	Irvine Center Dr	Spectrum Center Dr	EW		33 mph	3/5/2018	30 mph
<u>Gillette Ave</u>	Main Street	Armstrong Ave	NON	40 mph	45 mph	11/9/2016	
<u>Great Park Blvd</u>	Sand Canyon Ave	Ridge Valley	EW	50 mph	50 mph	10/7/2016	
<u>Groveland</u>	Irvine Blvd	Spring Meadow	NB	35 mph	33 mph	12/3/2013	
	Irvine Blvd	Spring Meadow	SB	35 mph	33 mph	12/3/2013	
<u>Hallmark</u>	Crossland	Regal	NS	35 mph	38 mph	12/9/2016	
<u>Harvard Ave</u>	Culver Dr	Berkeley Ave	EB	40 mph	44 mph	11/30/2017	No Change
	Berkeley Ave	University Dr	EB	45 mph	43 mph	11/30/2017	40 mph
	University Dr	Michelson Dr	NB	50 mph	49 mph	11/29/2017	45 mph
	Michelson Dr	Main Street	NB	45 mph	42 mph	11/29/2017	40 mph
	Main Street	Barranca Pkwy	NB	50 mph	48 mph	11/29/2017	45 mph
	Barranca Pkwy	Irvine Center Dr	NB	50 mph	50 mph	11/29/2017	No Change
	Irvine Center Dr	Walnut Ave	NB	45 mph	44 mph	11/29/2017	No Change
<u>Hicks Canyon Dr</u>	Kara	Yale Ave	NON	35 mph	37 mph	11/18/2015	
<u>Irvine Blvd</u>	Jamboree Rd	Marketplace	EB	50 mph	53 mph	11/28/2017	No Change
	Marketplace	Culver Dr	EB	50 mph	55 mph	8/31/2015	
	Culver Dr	Yale Ave	EB	55 mph	56 mph	11/28/2017	No Change
	Yale Ave	Jeffrey Rd	EB	55 mph	53 mph	11/28/2017	No Change
	Jeffrey Rd	Sand Canyon Ave	EW	55 mph	56 mph	11/28/2017	No Change
	Sand Canyon Ave	Pusan Way	EB	60 mph	62 mph	11/29/2017	No Change
	Pusan Way	Alton Pkwy	EB	65 mph	63 mph	11/29/2017	60 mph
	Alton Pkwy	Bake Pkwy	EB	55 mph	53 mph	8/27/2014	

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**City of Irvine Engineering and Traffic Surveys for Speed Limits
May 2018
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Street	From	To	Direction	Existing Posted Speed	85th Percentile	Survey Date	Recommended Posted Speed
<u>Irvine Center Dr</u>	Harvard Ave	Culver Dr	EB	50 mph	49 mph	8/28/2014	
	Harvard Ave	Culver Dr	WB	50 mph	50 mph	8/28/2014	
	Culver Dr	Yale Ave	EB	55 mph	54 mph	9/10/2014	
	Culver Dr	Yale Ave	WB	55 mph	56 mph	9/10/2014	
	Yale Ave	Jeffrey Rd	EB	55 mph	56 mph	8/27/2014	
	Yale Ave	Jeffrey Rd	WB	55 mph	54 mph	8/27/2014	
	Jeffrey Rd	Orangetree	EB	50 mph	52 mph	10/8/2014	
	Jeffrey Rd	Orangetree	WB	50 mph	51 mph	10/8/2014	
	Orangetree	Sand Canyon Ave	EB	50 mph	46 mph	11/14/2014	
	Orangetree	Sand Canyon Ave	WB	50 mph	52 mph	11/14/2014	
	Sand Canyon Ave	Barranca Pkwy	EB	50 mph	51 mph	8/28/2014	
	Sand Canyon Ave	Barranca Pkwy	WB	50 mph	54 mph	8/28/2014	
	Barranca Pkwy	I-405 SB Ramps	EB	50 mph	45 mph	9/10/2014	
	Barranca Pkwy	I-405 SB Ramps	WB	50 mph	46 mph	9/10/2014	
	I-405 SB Ramps	Bake Pkwy	EB	50 mph	51 mph	11/19/2014	
	I-405 SB Ramps	Bake Pkwy	WB	50 mph	50 mph	11/19/2014	
<u>Jamboree Rd</u>	Bake Pkwy	Scientific	EB	50 mph	50 mph	8/27/2015	
	Bake Pkwy	Scientific	WB	50 mph	51 mph	8/27/2015	
	Scientific	Lake Forest Dr	EB	45 mph	44 mph	9/2/2015	
	Scientific	Lake Forest Dr	WB	45 mph	50 mph	9/2/2015	
	MacArthur Blvd	Campus Dr	NB	50 mph	55 mph	12/5/2017	55 mph
	MacArthur Blvd	Campus Dr	SB	<>	<>	<>	
	Campus Dr	Michelson Dr	NB	50 mph	50 mph	12/5/2017	No Change
	Michelson Dr	Main Street	NB	50 mph	51 mph	12/5/2017	No Change
	Main Street	Barranca Pkwy	NB	50 mph	50 mph	12/5/2017	No Change
	Barranca Pkwy	City Limit	NS	<>	<>	<>	
	City Limit	City Limit @ R/R	NS	<>	<>	<>	
	City Limit @ R/R	Walnut Ave	NS	65 mph	66 mph	12/5/2017	No Change
	Walnut Ave	Michelle Dr	NS	<>	<>	<>	
	Michelle Dr	I-5 NB Ramp	NS	<>	<>	<>	

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<u>Jeffrey Rd</u>	I-405 SB Ramp	Alton Pkwy	NS	50 mph	50 mph	12/5/2017	No Change
	Alton Pkwy	Barranca Pkwy	NS	50 mph	48 mph	12/5/2017	No Change
	Barranca Pkwy	Irvine Center Dr	NS	50 mph	51 mph	12/5/2017	No Change
	Irvine Center Dr	I-5	NS	50 mph	52 mph	12/5/2017	No Change
	I-5	Roosevelt	NS	50 mph	47 mph	12/5/2017	45 mph
	Roosevelt	Trabuco Rd	NS	50 mph	43 mph	12/5/2017	45 mph
	Trabuco Rd	Irvine Blvd	NS	50 mph/55 mph	53 mph	12/5/2017	50 mph
	Irvine Blvd	Encore	NS	60 mph	54 mph	12/5/2017	50 mph
	Encore	Portola Pkwy	NS	60 mph	58 mph	12/5/2017	55 mph
<u>Jerónimo Rd</u>	Alton Pkwy	Bake Pkwy	EB	50 mph	52 mph	6/30/2014	
	Alton Pkwy	Bake Pkwy	WB	50 mph	50 mph	6/30/2014	
<u>Jordan Ave</u>	Michelson Dr	Jordan East	NS	30 mph	31 mph	12/21/2016	
<u>Jordan East</u>	Jordan Ave	Michelson Dr	NB	30 mph	31 mph	11/23/2015	
	Jordan Ave	Michelson Dr	SB	30 mph	32 mph	11/23/2015	
<u>Kelvin</u>	Derian	Jamboree Rd	EW		35 mph	11/13/2017	35 mph
	Jamboree Rd	Murphy	EW		32 mph	11/15/2017	30 mph
<u>Knollcrest</u>	Quail Hill Pkwy	Quail Hill Pkwy	NON	35 mph	36 mph	12/5/2017	No Change
<u>Laguna Canyon Rd</u>	City Limit	SR-133	NB	<>	<>	<>	
	City Limit	SR-133	SB	<>	<>	<>	
	SR-133	Quail Hill Pkwy	NS	50 mph	52 mph	10/6/2016	
	Quail Hill Pkwy	Alton Pkwy	NS	50 mph	51 mph	10/6/2016	
	Alton Pkwy	Barranca Pkwy	NB	45 mph	42 mph	6/25/2014	
	Alton Pkwy	Barranca Pkwy	SB	45 mph	43 mph	6/25/2014	
	Barranca Pkwy	Irvine Center Dr	NB	45 mph	43 mph	10/6/2014	
	Barranca Pkwy	Irvine Center Dr	SB	45 mph	46 mph	10/6/2014	
<u>Lake Rd</u>	Alton Pkwy	Barranca Pkwy	NB	25 mph	N/A	N/A	
	Alton Pkwy	Barranca Pkwy	SB	25 mph	N/A	N/A	
<u>Lake Forest Dr</u>	SR-133	Tesla	EB	55 mph	58 mph	12/5/2017	No Change
<u>Landmark</u>	Journey / Townsend	Crossland / Hallmark	NS	30 mph	31 mph	12/20/2016	
<u>Marine Way</u>	Sand Canyon Ave	Ridge Valley	EW		45 mph	12/13/2017	45 mph

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<u>MacArthur Blvd</u>	SR-73	Jamboree Rd	NS	60 mph	62 mph	12/6/2017	No Change
	Jamboree Rd	Campus Dr	NS	<>	<>	<>	
	Campus Dr	Michelson Dr	NS	45 mph	49 mph	12/6/2017	No Change
	Michelson Dr	I-405 SB Ramps	EW	45 mph	44 mph	12/6/2017	No Change
	I-405 SB Ramps	Red Hill Ave	EW	50 mph	47 mph	12/6/2017	45 mph
	Red Hill Ave	SR-55 NB Ramps	EW	45 mph	48 mph	12/6/2017	No Change
<u>Main Street</u>	SR-55	MacArthur Blvd	EW	45 mph	47 mph	11/30/2017	No Change
	MacArthur Blvd	Jamboree Rd	EW	45 mph	47 mph	11/30/2017	No Change
	Jamboree Rd	Harvard Ave	EW	45 mph	47 mph	11/30/2017	No Change
	Harvard Ave	Culver Dr	EW	50 mph	54 mph	11/30/2017	No Change
<u>McGaw Ave</u>	Pullman St	Von Karman Ave	EB	45 mph	45 mph	9/10/2015	
	Pullman St	Von Karman Ave	WB	45 mph	47 mph	9/10/2015	
	Von Karman Ave	Jamboree Rd	EW	45 mph	43 mph	11/9/2017	40 mph
	Jamboree Rd	Murphy Ave	EW	45 mph	34 mph	11/14/2017	35 mph
<u>Meadowood</u>	Culver Dr	Citrusglen	EW	45 mph	45 mph	10/13/2016	
<u>Michelson Dr</u>	MacArthur Blvd	Von Karman Ave	EW	40 mph	38 mph	11/30/2017	No Change
	Von Karman Ave	Jamboree Rd	EW	45 mph	40 mph	11/30/2017	40 mph
	Jamboree Rd	Harvard Ave	EW	45 mph	46 mph	11/30/2017	No Change
	Harvard Ave	Culver Dr	EW	45 mph	43 mph	11/29/2017	40 mph
	Culver Dr	Yale Ave	EW	35 mph	39 mph	11/29/2017	No Change
	Yale Ave	University Dr	EW	35 mph	35 mph	11/29/2017	No Change
<u>Millikan Ave</u>	Alton Pkwy	Barranca Pkwy	NS	40 mph	42 mph	12/2/2016	
<u>Modjeska</u>	Irvine Blvd	Portola Springs	NS	55 mph/45 mph	47 mph	12/5/2017	45 mph
<u>Muirlands Blvd</u>	Alton Pkwy	Bake Pkwy	EW	50 mph	51 mph	12/7/2017	No Change
<u>Newport Coast Dr</u>	Bonita Canyon Dr	SR-73	NS	55 mph	57 mph	9/29/2016	
<u>Nightmist</u>	Rush Lily	Tulip	EB	25 mph	32 mph	1/22/2016	
	Rush Lily	Tulip	WB	25 mph	32 mph	1/22/2016	
	Tulip	Sand Canyon Ave	EB	30 mph	35 mph	1/22/2016	
	Tulip	Sand Canyon Ave	WB	30 mph	35 mph	1/22/2016	
<u>Northwood</u>	Eastwood	Westwood	EB	35 mph	38 mph	1/13/2012	
	Eastwood	Westwood	WB	35 mph	36 mph	1/13/2012	
<u>Orchard Hills</u>	Furrow	Portola Pkwy	NON	40 mph	47 mph	12/12/2017	45 mph
<u>Pacifica</u>	Alton Pkwy	Irvine Center Dr	NON	45 mph	46 mph	12/6/2016	

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<u>Park Place</u>	Yale Ave	Kara	NON	40 mph	41 mph	10/18/2016	
<u>Paseo Westpark</u>	Harvard Ave	Warner Ave	EW	35 mph	35 mph	8/10/2016	
	Warner Ave	Barranca Pkwy	NB	40 mph	42 mph	7/22/2015	
	Warner Ave	Barranca Pkwy	SB	40 mph	40 mph	7/22/2015	
	Barranca Pkwy	Alton Pkwy	NS		39 mph	3/13/2018	35 mph
<u>Portola Springs</u>	Portola Pkwy	Modjeska	NS	35 mph/40 mph	31 mph	12/7/2017	30 mph
<u>Portola Pkwy</u>	SR-261 NB Ramps	Culver Dr	EW	50 mph	54 mph	6/25/2013	
	Culver Dr	Yale Ave	EW	55 mph	59 mph	11/29/2017	No Change
	Yale Ave	Jeffrey Rd	EW	55 mph	58 mph	6/20/2013	
	Jeffrey Rd	Sand Canyon Ave	EW	55 mph	56 mph	11/5/2012	
	Sand Canyon Ave	Ridge Valley	EW	50 mph	56 mph	11/29/2017	55 mph
	Ridge Valley	Portola Springs	EB	50 mph	56 mph	11/29/2017	55 mph
	Portola Springs	SR-241	EB	50 mph	52 mph	10/7/2015	
<u>Quail Hill Pkwy</u>	Shady Canyon Dr	Knollcrest W	EB	45 mph	47 mph	7/18/2013	
	Shady Canyon Dr	Knollcrest W	WB	45 mph	45 mph	7/18/2013	
	Knollcrest W	Knollcrest E	EB	45 mph	47 mph	6/18/2013	
	Knollcrest W	Knollcrest E	WB	45 mph	48 mph	6/18/2013	
	Knollcrest E	Laguna Canyon Rd	EW	45 mph	47 mph	12/7/2017	No Change
<u>Red Hill Ave</u>	Main Street	MacArthur Blvd	NB	50 mph	48 mph	8/25/2014	
	Main Street	MacArthur Blvd	SB	50 mph	49 mph	8/25/2014	
	MacArthur Blvd	Barranca Pkwy	NB	50 mph	50 mph	10/3/2014	
	MacArthur Blvd	Barranca Pkwy	SB	50 mph	52 mph	10/3/2014	
<u>Regal</u>	Hallmark	Vintage	EW	35 mph	39 mph	12/9/2016	
<u>Research Dr</u>	Irvine Center Dr	Bake Pkwy	NB	45 mph	47 mph	4/21/2015	
	Irvine Center Dr	Bake Pkwy	SB	45 mph	47 mph	4/21/2015	
	Bake Pkwy	City Limit	NB	50 mph	48 mph	9/28/2015	
	Bake Pkwy	City Limit	SB	50 mph	48 mph	9/28/2015	
<u>Ridgeline Dr</u>	Turtle Rock	University Dr	NB	50 mph	60 mph	9/28/2015	
	Turtle Rock	University Dr	SB	50 mph	58 mph	9/28/2015	
	Hillcrest	Turtle Rock Dr	NON	35 mph	39 mph	12/12/2016	
<u>Ridge Valley</u>	Portola Pkwy	Port/Cienega	NB	35 mph	38 mph	1/22/2016	
	Portola Pkwy	Port/Cienega	SB	35 mph	38 mph	1/22/2016	
	Port/Cienega	Irvine Blvd	NB	45 mph	50 mph	1/22/2016	
	Port/Cienega	Irvine Blvd	SB	45 mph	50 mph	1/22/2016	
	Irvine Blvd	Marine Way	NS		47 mph	12/13/2017	45 mph

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<u>Rockfield Blvd</u>	Thomas	Bake Pkwy	EB	45 mph	43 mph	9/15/2015	
	Thomas	Bake Pkwy	WB	45 mph	43 mph	9/15/2015	
	Bake Pkwy	East City Limit	EB	45 mph	43 mph	9/24/2015	
	Bake Pkwy	East City Limit	WB	45 mph	44 mph	9/24/2015	
<u>Roosevelt</u>	Monroe	Yale Ave	EB	40 mph	41 mph	4/20/2015	
	Monroe	Yale Ave	WB	40 mph	43 mph	4/20/2015	
	Yale Ave	Jeffrey Rd	EB	40 mph	43 mph	9/3/2015	
	Yale Ave	Jeffrey Rd	WB	40 mph	43 mph	9/3/2015	
	Jeffrey Rd	Visions	EB	35 mph	41 mph	1/19/2016	
	Jeffrey Rd	Visions	WB	35 mph	41 mph	1/19/2016	
	Visions	Bay Tree	EB	35 mph	42 mph	1/19/2016	
	Visions	Bay Tree	WB	35 mph	42 mph	1/19/2016	
	Bay Tree	Tulip	EB	30 mph	35 mph	12/2/2015	
	Bay Tree	Tulip	WB	30 mph	35 mph	12/2/2015	
<u>Royce Rd (West)</u>	Tulip	Sand Canyon Ave	EB	35 mph	39 mph	1/26/2016	
	Tulip	Sand Canyon Ave	WB	35 mph	39 mph	1/26/2016	
	Michelson Dr	Yale Ave	EB	30 mph	31 mph	12/3/2013	
	Michelson Dr	Yale Ave	WB	30 mph	31 mph	12/3/2013	
<u>Royce Rd (East)</u>	Yale Ave	Michelson Dr	EB	30 mph	29 mph	9/24/2013	
	Yale Ave	Michelson Dr	WB	30 mph	28 mph	9/24/2013	
<u>Rush Lily</u>	Roosevelt	Nightmist	NB	25 mph	30 mph	12/9/2015	
	Roosevelt	Nightmist	SB	25 mph	30 mph	12/9/2015	
<u>Sand Canyon Ave</u>	Alton Pkwy	Barranca Pkwy	NB	50 mph	49 mph	8/14/2014	
	Alton Pkwy	Barranca Pkwy	SB	50 mph	48 mph	8/14/2014	
	Barranca Pkwy	Irvine Center Dr	NB	50 mph	49 mph	6/30/2014	
	Barranca Pkwy	Irvine Center Dr	SB	50 mph	51 mph	6/30/2014	
	Irvine Center Dr	Oak Canyon	NB	50 mph	49 mph	8/4/2015	
	Irvine Center Dr	Oak Canyon	SB	50 mph	50 mph	8/4/2015	
	Oak Canyon	Marine Way	NB	50 mph	49 mph	10/6/2015	
	Oak Canyon	Marine Way	SB	50 mph	51 mph	10/6/2015	
	Marine Way	Trabuco Rd	NB	55 mph	55 mph	10/7/2015	
	Marine Way	Trabuco Rd	SB	55 mph	52 mph	10/7/2015	
	Trabuco Rd	Irvine Blvd	NB	55 mph	56 mph	9/1/2015	
	Trabuco Rd	Irvine Blvd	SB	55 mph	55 mph	9/1/2015	
<u>San Leon/San Juan</u>	Irvine Blvd	Portola Pkwy	NS	50 mph	53 mph	12/5/2016	
	Harvard Ave	Harvard Ave	NON	30 mph	33 mph	12/12/2017	No Change
	Harvard Ave	Alton Pkwy	NON	35 mph/30 mph	35 mph	12/7/2017	35 mph
	San Remo	Paseo Westpark	NON	30 mph	34 mph	10/10/2013	

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<u>Sandburg Way</u>	Culver Dr	Michelson Dr	NON	25 mph	33 mph	12/6/2017	30 mph
<u>Scented Violet</u>	Roosevelt	Starry Iris	NB	30 mph	34 mph	12/9/2015	
	Roosevelt	Starry Iris	SB	30 mph	34 mph	12/9/2015	
<u>Scientific</u>	Lake Forest Dr	Research Dr	NS	35 mph	38 mph	12/14/2016	
<u>Seton Rd</u>	Culver Dr	Michelson Dr	NON	25 mph	34 mph	11/16/2015	
<u>Shady Canyon Dr</u>	Bonita Canyon Dr	Sunnyhill	EW	50 mph	51 mph	12/6/2017	No Change
	Private Gate	Quail Hill Pkwy	NB	50 mph	48 mph	9/9/2015	
	Private Gate	Quail Hill Pkwy	SB	50 mph	50 mph	9/9/2015	
<u>Sky Park Circle</u>	< < < Entire Loop > > >		NON	35 mph	37 mph	9/30/2015	
<u>Southwood</u>	Eastwood	Westwood	EW	35 mph	39 mph	12/12/2017	No Change
<u>Spectrum Center Dr</u>	Enterprise Dr	Entertainment Way	NS	30 mph	32 mph	12/21/2016	
<u>Springbrook N</u>	Springbrook S	East Yale Loop	EB	35 mph	35 mph	9/8/2015	
	Springbrook S	East Yale Loop	WB	35 mph	34 mph	9/8/2015	
<u>Spring Meadow</u>	Sand Canyon Ave	Medallion	EB	40 mph	39 mph	8/10/2015	
	Sand Canyon Ave	Medallion	WB	40 mph	42 mph	8/10/2015	
	Medallion	Groveland	EB	40 mph	35 mph	9/16/2015	
	Medallion	Groveland	WB	40 mph	38 mph	9/16/2015	
<u>Spyglass</u>	Knollcrest	Weathervane	EB	35 mph	39 mph	10/29/2015	
	Knollcrest	Weathervane	WB	35 mph	40 mph	10/29/2015	
<u>Stanford Ct</u>	Harvard Ave	Bridge Rd	NON	30 mph	30 mph	5/28/2014	
<u>Starcrest</u>	Hillcrest	Turtle Rock Dr	EW	45 mph	44 mph	10/14/2016	
<u>Stone Creek N</u>	West Yale Loop	Stone Creek S	NON	30 mph	30 mph	9/23/2013	
<u>Stone Creek S</u>	West Yale Loop	Stone Crk S-East curve	NON	30 mph	34 mph	11/5/2012	
<u>Summit Park</u>	Turtle Ridge Dr	Lonetree	EW	45 mph	45 mph	10/21/2016	
<u>Sweet Shade</u>	Harvard Ave	Fringe Tree	EB	30 mph	31 mph	6/16/2014	
	Harvard Ave	Fringe Tree	WB	30 mph	31 mph	6/16/2014	
<u>Technology Dr West</u>	(West Terminus)	Barranca Pkwy	NON	45 mph	47 mph	4/23/2015	
	Barranca Pkwy	Alton Pkwy	EB	40 mph	41 mph	11/20/2014	
	Barranca Pkwy	Alton Pkwy	WB	40 mph	45 mph	9/9/2015	
<u>Technology Dr</u>	< < < Loop: Alton-Alton > > >		NON	45 mph	50 mph	11/13/2015	
<u>Toledo Way</u>	Alton Pkwy	Bake Pkwy	EB	50 mph	47 mph	5/19/2015	
	Alton Pkwy	Bake Pkwy	WB	50 mph	48 mph	5/19/2015	
<u>Townsend</u>	Vintage	Journey / Landmark	EW	35 mph	39 mph	12/9/2016	

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<u>Trabuco Rd</u>	Culver Dr	Yale Ave	EW	50 mph	51 mph	10/6/2016	
	Yale Ave	Jeffrey Rd	EB	50 mph	50 mph	8/13/2015	
	Yale Ave	Jeffrey Rd	WB	50 mph	55 mph	8/13/2015	
	Jeffrey Rd	Sand Canyon Ave	EB	50 mph	49 mph	8/26/2014	
	Jeffrey Rd	Sand Canyon Ave	WB	50 mph	52 mph	8/26/2014	
<u>Tulip</u>	Trabuco Rd	Roosevelt	EW	35 mph	39 mph	1/20/2016	
	Trabuco Rd	Roosevelt	SB	35 mph	39 mph	1/20/2016	
	Roosevelt	Nightmist	NB	35 mph	38 mph	1/20/2016	
	Roosevelt	Nightmist	SB	35 mph	38 mph	1/20/2016	
<u>Turtle Ridge</u>	Newport Coast Dr	Bonita Canyon Dr	NB	40 mph	45 mph	8/26/2015	
	Newport Coast Dr	Bonita Canyon Dr	SB	40 mph	40 mph	8/26/2015	
<u>Turtle Rock Dr</u>	Campus Dr	Grossmont Ave	NB	40 mph	49 mph	8/10/2015	
	Campus Dr	Grossmont Ave	SB	40 mph	44 mph	8/10/2015	
	Grossmont Ave	Sierra Amigo Rd	NS	45 mph	48 mph	12/13/2016	
	Sierra Amigo Rd	Sierra Cecile Rd	NB	40 mph	46 mph	6/17/2015	
	Sierra Amigo Rd	Sierra Cecile Rd	SB	40 mph	48 mph	6/17/2015	
	Sierra Cecile Rd	Ridgeline Dr	NS	45 mph	47 mph	12/15/2016	
	Ridgeline Dr	Sycamore Creek E	EW	45 mph	49 mph	12/13/2016	
	Sycamore Creek E	Campus Dr	EW	45 mph	49 mph	12/12/2016	
<u>University Dr</u>	MacArthur Blvd	Campus Dr	EB	55 mph	52 mph	7/29/2014	
	MacArthur Blvd	Campus Dr	WB	55 mph	57 mph	7/29/2014	
	Campus Dr	Harvard Ave	EB	50 mph	51 mph	8/13/2015	
	Campus Dr	Harvard Ave	WB	50 mph	52 mph	8/13/2015	
	Harvard Ave	San Joaquin	EB	55 mph	57 mph	5/7/2015	
	Harvard Ave	San Joaquin	WB	55 mph	58 mph	5/7/2015	
	San Joaquin	Culver Dr	EB	55 mph	55 mph	6/15/2015	
	San Joaquin	Culver Dr	WB	55 mph	54 mph	6/15/2015	
	Culver Dr	Yale Ave	EB	50 mph	54 mph	8/5/2015	
	Culver Dr	Yale Ave	WB	50 mph	55 mph	8/5/2015	
	Yale Ave	Michelson Dr	EB	50 mph	56 mph	8/18/2015	
	Yale Ave	Michelson Dr	WB	50 mph	55 mph	8/18/2015	
	Michelson Dr	I-405 SB Ramp	EB	50 mph	50 mph	10/5/2015	
	Michelson Dr	I-405 SB Ramp	WB	50 mph	50 mph	10/5/2015	

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<u>Valley Oak</u>	Alton Pkwy	Barranca Pkwy	NS	45 mph	45 mph	12/6/2017	No Change
	Barranca Pkwy	Oak Canyon	NS	45 mph	50 mph	12/6/2017	50 mph
<u>Vintage</u>	Regal	Townsend	NS	40 mph	41 mph	12/20/2016	
<u>Visions</u>	Trabuco Rd	Roosevelt	NB	35 mph	38 mph	12/10/2015	
	Trabuco Rd	Roosevelt	SB	35 mph	38 mph	12/10/2015	
<u>Von Karman Ave</u>	Campus Dr	Michelson Dr	NS	45 mph	46 mph	12/5/2017	No Change
	Michelson Dr	Main Street	NS	45 mph	47 mph	12/5/2017	No Change
	Main Street	Barranca Pkwy	NS	50 mph	43 mph	12/5/2017	45 mph
<u>Walnut Ave</u>	Myford Rd	Harvard Ave	EB	40 mph	45 mph	12/4/2014	
	Myford Rd	Harvard Ave	WB	40 mph	43 mph	12/4/2014	
	Harvard Ave	The Mall	EW	45 mph	49 mph	12/6/2017	No Change
	The Mall	Culver Dr	EW	40 mph	45 mph	12/6/2017	45 mph
	Culver Dr	Yale Ave	EW	45 mph	49 mph	12/6/2017	No Change
	Yale Ave	Kazan St	EW	45 mph	49 mph	12/6/2017	No Change
	Kazan St	Jeffrey Rd	EW	40 mph	44 mph	12/6/2017	No Change
<u>Warner Ave</u>	City Limit	NB Jamboree Rd	EB	45 mph	46 mph	8/22/2013	
	City Limit	NB Jamboree Rd	WB	45 mph	48 mph	8/22/2013	
	NB Jamboree Rd	Harvard Ave	EB	50 mph	47 mph	5/9/2013	
	NB Jamboree Rd	Harvard Ave	WB	50 mph	50 mph	5/9/2013	
	Harvard Ave	Culver Dr	EB	45 mph	41 mph	9/8/2014	
	Harvard Ave	Culver Dr	WB	45 mph	40 mph	9/8/2014	
<u>Westwood</u>	Northwood	Southwood	NS	35 mph	37 mph	12/12/2017	No Change
<u>West Yale Loop</u>	Yale Ave South	Alton Pkwy	NS	40 mph	42 mph	9/29/2016	
	Alton Pkwy	Barranca Pkwy	NS	40 mph	43 mph	9/28/2016	
	Barranca Pkwy	Yale Ave North	NS	40 mph	42 mph	9/28/2016	

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<u>Yale Ave</u>	University Dr	Royce Rd	NB	35 mph	41 mph	11/16/2015	
	University Dr	Royce Rd	SB	35 mph	41 mph	11/16/2015	
	Royce Rd	Michelson Dr	NB	40 mph	45 mph	6/30/2015	
	Royce Rd	Michelson Dr	SB	40 mph	44 mph	6/30/2015	
	West Yale Loop	Irvine Center Dr	NS	40 mph	39 mph	5/18/2016	
	Irvine Center Dr	Winvale Ave	NS	45 mph	49 mph	12/6/2017	No Change
	Winvale Ave	Walnut Ave	NS	40 mph	42 mph	12/6/2017	No Change
	Walnut Ave	Trabuco Rd	NS	45 mph	49 mph	12/6/2017	No Change
	Trabuco Rd	Monticello	NS	40 mph	43 mph	5/8/2013	
	Monticello	Irvine Blvd	NS	40 mph	42 mph	12/6/2017	No Change
	Irvine Blvd	Meadowood	NS	40 mph	44 mph	5/25/2016	


3.1



REQUEST FOR CITY OF IRVINE AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ACTION

MEETING DATE: JULY 10, 2018

TITLE: MINUTES

 ASST SECRETARY
Secretary

RECOMMENDED ACTION:

Approve the minutes of the regular joint meeting of the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency with the Irvine City Council held on June 26, 2018.



MINUTES

**CITY COUNCIL
REGULAR MEETING
AND
REGULAR JOINT MEETING
WITH THE
CITY OF IRVINE AS SUCCESSOR
AGENCY TO THE DISSOLVED
IRVINE REDEVELOPMENT AGENCY**

**June 26, 2018
City Council Chamber
One Civic Center Plaza
Irvine, CA 92606**

CALL TO ORDER

The regular meeting of the Irvine City Council and regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency was called to order at 4:08 p.m. on June 26, 2018 in the City Council Chamber, Irvine Civic Center, One Civic Center Plaza, Irvine, California; Mayor/Chairman Wagner presiding.

ROLL CALL

Present:	4	Councilmember/Boardmember:	Melissa Fox
		Councilmember/Boardmember:	Jeffrey Lalloway
		Mayor Pro Tempore/Vice Chairwoman:	Christina Shea
		Mayor/Chairman:	Donald P. Wagner
Absent:	1	Councilmember/Boardmember:	Lynn Schott

1. CLOSED SESSION

City Attorney Melching announced the following Closed Session item:

- 1.1 CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Section 54956.9: one potential case**
- 1.2 CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Initiation of litigation pursuant to Government Code Section 54956.9(d)(4): two potential cases**
- 1.3 PUBLIC EMPLOYEE APPOINTMENT: Government Code Section 54957 - Title: City Manager**

RECESS

Mayor Wagner convened the City Council meeting to Closed Session at 4:09 p.m.

RECONVENE TO THE CITY COUNCIL MEETING

Mayor Wagner reconvened the City Council meeting at 6:08 p.m. City Attorney Melching, on behalf of the City Council, announced that no reportable action was taken in Closed Session.

PLEDGE OF ALLEGIANCE

Councilmember Lalloway led the Pledge of Allegiance.

INVOCATION

Mayor Wagner provided the invocation.

2. PRESENTATIONS

- 2.1 Presentation by Orange County District Attorney Tony Rackauckas on Rehabilitation Exploitation and Health Care Trafficking**

Mayor Wagner noted that Orange County District Attorney Tony Rackauckas was unable to attend the City Council meeting.

CITY MANAGER'S REPORT

There was no report.

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Mayor Pro Tempore Shea noted a recent conflict-of-interest complaint filed with the Fair Political Practices Commission (FPPC) against her and Councilmember Fox, who serve as the City's representatives to the Irvine Community Land Trust (ICLT), for participating in a discussion and vote at the prior City Council meeting to allocate funding to the ICLT from Fund 113 for affordable housing. Jeff Melching, City Attorney, opined on why he believed the matter was not a conflict-of-interest, to which Councilmember Shea asked that he provide a written legal opinion to the FPPC.

Councilmember Fox, as the City's representative to the Newport Bay Watershed Committee, provided a summary of accomplishments and projects underway by the Committee.

Mayor Wagner noted that the Orange County Board of Supervisors took action earlier in the day to investigate an alternative site for an Orange County veterans cemetery proposed by Orange County Supervisor Todd Spitzer; and made the following announcements:

- The Irvine Police Association will present the 34th annual Concert on the Green and Fireworks Festival on Wednesday, July 4 at the Irvine High School Stadium. The festivities begin at 3 p.m. and wrap up at 9 p.m. with a Musical Sky Concert and Fireworks Extravaganza. The day includes live music by the Derek Bordeaux Group, a food court, games and activities for children, and the presentation of the colors by the Irvine Police Department Honor Guard. Tickets are available at the Community Services Department front counter, by calling 949-724-0488, or visiting irvinepa.org/events.
- The City's popular Sizzlin' Summer Concerts begin at Mike Ward Community Park – Woodbridge on Sunday, July 8, with the Smith Band and their modern country music. The community is invited to a series of six free, family-friendly concerts in the park covering a variety of musical tastes, from pop variety and dance hits to classical symphony and classic rock. Gourmet food trucks and a children's play area are part of the festivities, which begin at 5:30 p.m. For information and a full concert series schedule, visit cityofirvine.org/play.
- Another 48 acres of amenities are now open at the Orange County Great Park Sports Complex. As of June 15, residents and local sports organizations have taken advantage of six new synthetic soccer/lacross fields, a natural turf flex field that can accommodate four additional soccer fields, and four basketball courts. The additional acres add to the existing 53 acres that opened in August 2017 as part of the developing Sports Complex that enhances the Great Park's 1,300 acres. In all, 130 acres of new playfields and trails are scheduled to open this year. Visit ocgp.org for a complete list of park amenities.

- Irvine was named one of the best cities in the country for young families, according to the consumer research group ValuePenguin, ranking 15 out the 318 largest cities in the United States based on several factors, which include economic opportunity, education, health and safety. The ranking is further evidence that schools, economy, public safety, dedicated open space, and diversity set Irvine apart and make the City one of the best cities for young families looking to live, work, and play.

ADDITIONS AND DELETIONS

There were no additions or deletions.

CONVENE TO THE REGULAR JOINT MEETING

Mayor/Chairman Wagner convened to the regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency at 6:20 p.m.

3. CONSENT CALENDAR - CITY COUNCIL

ACTION: Moved by Mayor Pro Tempore/Vice Chairwoman Shea, seconded by Councilmember/Boardmember Lalloway, and unanimously carried by those members present (Councilmember/Boardmember Schott absent), to approve City Council Consent Calendar Item Nos. 3.1 through 3.13, and Successor Agency Consent Calendar Item Nos. 4.1 and 4.2, with the exception of City Council Consent Calendar Item Nos. 3.5, 3.6, 3.9, and 3.11, which were removed for separate discussion.

3.1 MINUTES

ACTION:

- 1) Approved the minutes of a special meeting of the Irvine City Council held on June 5, 2018.
- 2) Approved the minutes of a special meeting of the Irvine City Council held on June 12, 2018.
- 3) Approved the minutes of a regular meeting of the Irvine City Council and special joint meeting with the Orange County Great Park Board held on June 12, 2018.

3.2 WARRANT AND WIRE TRANSFER RESOLUTION

ACTION:

Adopted RESOLUTION NO. 18-53 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND DEMANDS AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

3.3 DEFINED BENEFIT AND DEFINED CONTRIBUTION PENSION PLAN AUDITS FOR THE YEAR ENDED DECEMBER 31, 2017

ACTION:

Received and filed the Defined Benefit and the Defined Contribution Pension Plan audits for the year ended December 31, 2017.

3.4 FINAL REPORT AND DECLARATION OF SURPLUS FOR ASSESSMENT DISTRICT NO. 07-22 (STONEGATE)

ACTION:

- 1) Received and filed the Final Report for Assessment District No. 07-22 (Stonegate).
- 2) Adopted RESOLUTION NO. 18-54 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DECLARING A SURPLUS IN THE IMPROVEMENT FUND FOR THE CITY OF IRVINE ASSESSMENT DISTRICT NO. 07-22

3.5 PISTOIA APARTMENTS DENSITY BONUS HOUSING AGREEMENT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who noted that more information related to the Density Bonus agreement was needed to address development density and traffic impacts.

Judith Gass spoke in support of affordable housing and raising its allocation to over ten percent, but expressed concern about proximity to schools and associated traffic concerns.

City Council discussion included: suggesting the item be continued for 60 to 90 days for additional analysis; reiterated that the State of California determines the required number of affordable homes; noted that the agreement had been pending for several years; and questioned project status and potential consequences if approval of the agreement was delayed.

Ray Timmons and Johnny Lu, representing 17422 Derian, Irvine, LLC, provided a brief status of the project and potential consequences if approval of the agreement was delayed.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Lalloway, and unanimously carried by those members present (Councilmember Schott absent), to:

Direct staff to return to the City Council within 60 days with more detail regarding density bonus, any flexibility the City has with the State with these density bonuses, and any other nuances the City Council needs to understand regarding the uniqueness of the project structure.

3.6 MILANI APARTMENTS DENSITY BONUS HOUSING AGREEMENT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who expressed similar concerns to the Pistoia Apartments Density Bonus Agreement (Consent Calendar Item No. 3.5), and asked that similar action be taken to continue the matter and direct staff to return within 60 days with additional analysis.

There was no City Council discussion.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Fox, and to:

Direct staff to return to the City Council within 60 days with more detail regarding density bonus, any flexibility the City has with the State with these density bonuses, and any other nuances the City Council needs to understand regarding the uniqueness of the project structure.

The motion carried as follows:

AYES: 3 COUNCILMEMBERS: Fox, Shea and Wagner

NOES: 0 COUNCILMEMBERS: None

ABSENT: 1 COUNCILMEMBERS: Schott

ABSTAIN: 1 COUNCILMEMBERS: Lalloway

3.7 NEWPORT BAY WATERSHED COOPERATIVE AGREEMENT MA-080-18011416

ACTION:

- 1) Approved Agreement MA-080-18011416 to fund nutrient, fecal coliform and toxics Total Maximum Daily Load programs and activities in the Newport Bay Watershed. **(Contract No. 10259)**
- 2) Authorized the Mayor to sign the Agreement on behalf of the City.

3.8 NOTICE OF REVIEW FOR TRACT MAPS IN ORCHARD HILLS

ACTION:

Received and filed.

3.9 GRANT OF EASEMENT TO SOUTHERN CALIFORNIA EDISON COMPANY FOR ELECTRICAL FACILITIES WITHIN A CITY-OWNED LANDSCAPE LOT

This item was removed for separate discussion at the request of Mayor Pro Tempore Shea, who noted that this grant of easement was a result of collaborative efforts to relocate the proposed Southern California Edison Safari Substation, originally located on Wald Street.

There was no City Council discussion.

ACTION: Moved by Mayor Pro Tempore Shea, seconded by Councilmember Lalloway, and unanimously carried by those members present (Councilmember Schott absent), to:

Approve the Easement Deed with Southern California Edison Company (SCE) for installation of electric facilities within a city-owned landscape lot, and authorized the Mayor to execute the Easement Deed and SCE Offer Letter. **(Deed No. 1627)**

3.10 APPROVAL OF PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS FOR IRVINE CENTER DRIVE/EDINGER AVENUE REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

ACTION:

- 1) Approved construction plans, specifications, and contract documents for Irvine Center Drive/Edinger Avenue Regional Traffic Signal Synchronization Program, Capital Improvement Project 331702.
- 2) Approved the Engineer's Estimate, Construction Contingency, and Project Funding Summary.

- 3) Authorized staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

3.11 APPROVAL OF PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS FOR VON KARMAN AVENUE/TUSTIN RANCH ROAD REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

This item was removed for separate discussion at the request of Councilmember Lalloway, who noted the significance of this and similar projects to improve traffic in and around the Irvine Business Complex; and expressed appreciation to the City of Tustin, Orange County Transportation Authority, and City staff for working collaboratively to move these projects forward.

ACTION: Moved by Councilmember Lalloway, seconded by Mayor Pro Tempore Shea, and unanimously carried by those members present (Councilmember Schott absent), to:

- 1) Approve the construction plans, specifications, and contract documents for Von Karman Avenue/Tustin Ranch Road Regional Traffic Signal Synchronization Program, Capital Improvement Project 331703.
- 2) Approve the Engineer's Estimate, Construction Contingency, and Project Funding Summary.
- 3) Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

3.12 CONSIDER MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY OF IRVINE AND THE IRVINE BARCLAY THEATRE OPERATING COMPANY

ACTION:

Authorized the Mayor to sign a Memorandum of Understanding between the City of Irvine and Irvine Barclay Theatre Operating Company memorializing and clarifying the City's obligations for annual funding for operations and maintenance. **(Contract No. 10260)**

3.13 COMMUNITY PARTNERSHIP FUND GRANT NOMINATIONS

ACTION:

- 1) Approved Councilmember Lalloway's requests for Community Partnership Fund Grant nominations to the following organizations:
 - a. Children's Hospital Orange County (CHOC) Foundation in support of CHOC Small World Guild (\$1,000) **(Contract No. 10261)**
 - b. Chabad of Irvine in support of program costs (\$1,000) **(Contract No. 10262)**
 - c. Beckman High School Athletic Booster Club in support of the Cross County program (\$2,000) **(Contract No. 10263)**
- 2) Authorized the City Manager to prepare and sign the funding agreements listed in Action 1.

4. CONSENT CALENDAR - SUCCESSOR AGENCY

4.1 MINUTES

ACTION:

Approve the minutes of the regular joint meeting of the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency with the Irvine City Council held on April 24, 2018.

4.2 WARRANT AND WIRE TRANSFER RESOLUTION – CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY

ACTION:

Adopted RESOLUTION NO. 18-04 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ALLOWING CERTAIN CLAIMS AND DEMANDS OF THE CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

PUBLIC COMMENT - SUCCESSOR AGENCY

There were no public comments.

ADJOURNMENT - REGULAR JOINT MEETING

Moved by Mayor Pro Tempore/Vice Chairwoman Shea, seconded by Councilmember/Boardmember Lalloway, and unanimously carried by those members present (Councilmember/Boardmember Schott absent), to adjourn the regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency at 6:37 p.m.

CHAIRMAN, SUCCESSOR AGENCY

SECRETARY, SUCCESSOR AGENCY

July 10, 2018

3.2



REQUEST FOR CITY OF IRVINE AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ACTION

MEETING DATE: JULY 10, 2018

TITLE: WARRANT AND WIRE TRANSFER RESOLUTION – CITY
COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED
IRVINE REDEVELOPMENT AGENCY

Director of Administrative Services

City Manager

RECOMMENDED ACTION

Adopt – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ALLOWING CERTAIN CLAIMS AND DEMANDS OF THE CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

EXECUTIVE SUMMARY

On December 29, 2011, the California Supreme Court upheld Assembly Bill x1 26 (the Dissolution Act) and directed that all redevelopment agencies in the state be dissolved effective February 1, 2012. On January 10, 2012, the City Council elected to become the Successor Agency to the Irvine Redevelopment Agency. As the Successor Agency, the City will wind down the affairs of the former redevelopment agency, including the payment of invoices for services related to the dissolution.

The attached Register of Warrants and Wire Transfers contains a payment totaling \$3,973,015.29 to the County of Orange for Implementation Agreement No. 1 for fiscal years 2016-17 and 2017-18. The payment will be released on Wednesday, July 11, 2018.

ATTACHMENT Resolution

SUCCESSOR AGENCY RESOLUTION NO. 18-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY ALLOWING CERTAIN CLAIMS AND DEMANDS OF THE CITY COUNCIL AS SUCCESSOR AGENCY TO THE DISSOLVED IRVINE REDEVELOPMENT AGENCY AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

(SEE ATTACHED)

PASSED AND ADOPTED by the City Council of the City of Irvine, as Successor Agency to the dissolved Irvine Redevelopment Agency, at a regular meeting held on the 10th day of July 2018.

CHAIR, SUCCESSOR AGENCY

ATTEST:

SECRETARY, SUCCESSOR AGENCY

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, Secretary to the Successor Agency, HEREBY DO CERTIFY that the foregoing resolution was duly adopted at a regular meeting of the City Council of the City of Irvine, as Successor Agency to the dissolved Irvine Redevelopment Agency, held on the 10th day of July 2018.

AYES: BOARDMEMBERS:
NOES: BOARDMEMBERS:
ABSENT: BOARDMEMBERS:

SECRETARY, SUCCESSOR AGENCY

SUCCESSOR AGENCY 18-

ATTACHMENT

6/20/2018 through 6/26/2018

**City of Irvine as Successor Agency to the Irvine Redevelopment Agency
Register of Warrants and Wire Transfers**

Fund	Fund Description	Amount
791	REDEVELOPMENT OBLIGTN RET	3,973,015.29
	GRAND TOTAL	3,973,015.29

4.1

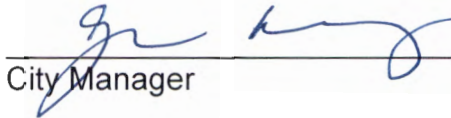


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 10, 2018

TITLE: AGREEMENT FOR THE EMPLOYMENT OF CITY MANAGER OF THE CITY OF IRVINE


Director of Administrative Services


City Manager

RECOMMENDED ACTION

Approve Agreement for Employment of City Manager Between City of Irvine and John A. Russo.

EXECUTIVE SUMMARY

The City Council has completed a comprehensive recruitment process for a new City Manager. The process included a nationwide search and multiple rounds of reviews and interviews. Through that process, the City Council identified John A. Russo as its preferred candidate, and directed that a contract for Mr. Russo's employment be presented for open session consideration and action.

Pursuant to City Council's direction, the City's recruiter, Ralph Andersen & Associates, negotiated the attached employment agreement with Mr. Russo. As required by California law, the terms of the agreement are outlined below. In summary, the contract is for a two year term at a compensation rate of \$303,014.40 per year. Benefits will be generally the same as is otherwise provided to the City's management team, except that Mr. Russo (i) will begin with a bank of three weeks of vacation time (but will not accrue additional vacation time during the first year of his employment), and (ii) will begin with a bank of forty hours of sick leave. If the employment contract is terminated early without cause, Mr. Russo will receive sixty days severance pay.

A summary of the City Manager selection process, Mr. Russo's qualifications, and the key terms of the proposed employment agreement are provided below.

ANALYSIS

Following the retirement of its previous City Manager, the City Council directed the commencement of a nation-wide search for a new City Manager. The City selected Ralph Andersen & Associates to assist with that recruitment.

The City received forty resumes and applications in response to the recruitment. The City Council narrowed the field of applicants, and in-person interviews of seven highly qualified

candidates occurred on May 18, 2018. The field of finalists was then narrowed to three candidates, and those individuals participated in a second round of interviews on June 12, 2018.

Following their deliberations, and after careful consideration, the City Council selected John A. Russo as the top candidate. Mr. Russo has over 24 years of experience in local government, working as the City Manager for the cities of Riverside (2015-2018) and Alameda (2011-2015), as the City Attorney for the City of Oakland (2000-2011), and as an elected City Councilmember in Oakland (1995-2000). Through that experience, Mr. Russo has developed an exceptional breadth and depth of legislative and executive management experience in municipal government, combined with extensive professional, political, and personal networks throughout California and in Washington, DC. He has an excellent statewide reputation as a champion for local democracy, fiscal prudence, and government transparency. He has expert communication skills in a wide variety of settings including speeches, interviews, essays, presentations, and one-to-one mentoring. Employing his skills and experience, Mr. Russo has a demonstrated track record of success in devising and implementing public policy initiatives at the state and municipal level.

Mr. Russo's educational credentials include a bachelor's degree (with honors) in Economics & Political Science from Yale University, and a law degree from New York University School of Law. He has previously served as President and long-time member of the Board of Directors of the League of California Cities, and as a member of the Board of Directors of the National League of Cities. He is also admitted to the State Bars of California and Missouri and has been a licensed attorney for nearly 33 years.

Mr. Russo has received many awards and honors over his career, which most recently include a 2018 award for Public Partner of the Year from the Inland Empire Economic Partnership and a 2017 award for Strategic Leadership and Governance from the International City/County Management Association (ICMA). Mr. Russo's *curriculum vitae* is provided as Attachment 1 for further information on his extensive background and experience.

Pursuant to City Council direction, City staff has prepared and negotiated an agreement to memorialize the compensation, benefits, review processes, and other key terms of Mr. Russo's employment. Those terms are summarized below, and set forth in full in the Agreement for the Employment of City Manager provided as Attachment 2. The terms will also be summarized orally at the July 10, 2018 City Council Meeting, as required by Government Code Section 54953(c)(2), which provides in relevant part: "Prior to taking final action, the legislative body shall orally report a summary of a recommendation for a final action on the salaries, salary schedules, or compensation paid in the form of fringe benefits of a local agency executive ... during the open meeting in which the final action is to be taken."

In summary, the terms of the employment agreement are as follows:

1. **Contract Duration.** Mr. Russo's contract is for a period of two years, effective July 16, 2018. It is terminable by the City, with or without cause at any time, subject to severance pay obligations outlined below. Under the Irvine Municipal Code section 1-3-119, however, the contract may not be terminated, other than for misconduct in office, within a period of ninety days after any general municipal election at which any new member of the City Council is elected. The contract is terminable by Mr. Russo on thirty days notice.
2. **Compensation.** Mr. Russo's starting salary will be \$303,014.40 per year. If during the term percentage salary adjustments are granted to the City's management group as a whole, Mr. Russo's salary will be adjusted by that same percentage.
3. **Vacation:** Mr. Russo will begin his employment with a bank of 120 hours of vacation, but will not accrue any additional vacation during the first year of his employment. In the second year of his employment, Mr. Russo will accrue vacation at a rate of 120 hours per year.
4. **Sick Leave:** Mr. Russo will begin his employment with a bank of 40 hours of sick leave. He will, in addition accrue sick leave in the same manner as is otherwise available to the City's management group.
5. **Other Benefits.** Except with regard to vacation and sick leave (described in the prior two paragraph), Mr. Russo will be entitled to the same benefits as are available to the City's management, which includes, personal leave, bereavement leave, parenthood leave, administrative leave, holidays, pension/retirement (PERS) benefits and payments (including those relating to the retiree health plan), health insurance, dental insurance, vision insurance, life insurance, disability insurance, flexible spending account, telecommunications allowance, vehicle allowance, and management incentive pay. Attachment 3 -- the City's resolution establishing and describing the benefits of management and non-represented employees of the City of Irvine -- provides further information on these benefits.
6. **Severance Pay.** If he is terminated without cause, Mr. Russo will receive a lump sum cash payment equal to the lesser of (i) sixty days of the base salary he is receiving on the date of his termination or (ii) the base salary due to him for the remaining term of the contract. Mr. Russo would also receive medical benefits for the shortest of the following: sixty days; the remaining term on the contract; until Mr. Russo finds other employment and becomes eligible for health benefits; or until Mr. Russo retires.

7. **Annual Reviews**. While the City Council retains the ability to review Mr. Russo's performance at any time, it specifically commits to conducting such a review in or around July of 2019.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ALTERNATIVES CONSIDERED

Not applicable.

FINANCIAL IMPACT

The annual total cost of the agreement, including benefits, is approximately \$456,662 and is budgeted in the FY 2018/2019 adopted budget.

REPORT PREPARED BY Jeffrey T. Melching, City Attorney

ATTACHMENTS

1. *Curriculum Vitae* for John A. Russo
2. Agreement for Employment of City Manager
3. City Council Resolution 17-63

JOHN A. RUSSO

April 17, 2018

Lamont Ewell
Ralph Andersen and Associates
5800 Stanford Ranch Road, Suite 410
Rocklin, CA 95765

Dear Mr. Ewell:

I am pleased to submit this application for the position of City Manager for the City of Irvine. My 23 years of unusually broad leadership experience in municipal government makes me uniquely well prepared to be Irvine's next City Manager.

In three cities I have established a reputation for strong leadership in several areas essential to effective city management. Transparency, accountability, responsiveness, fiscal prudence, and decisiveness are the values that have defined my career. Over the past seven years I have held two City Manager positions, including Alameda and Riverside. Prior to my career in city management, I spent 11 years as an award winning elected City Attorney and 6 years as elected City Councilmember in Oakland.

Serving in these very different official capacities – Councilmember, City Attorney, and City Manager – has given me strong insight into how to make a city work and a deep regard for the importance of having municipal officials respect the roles to which they have been assigned. As a City Manager, I draw on my past experience as a former Councilmember who was often frustrated by “de facto” staff policymaking. This means that I lead my team in fully and faithfully respecting the principal that the City Council – not the staff – collectively sets municipal policy. Municipal democracy and effective governance demand nothing less.

As City Manager in Riverside I have brought significant progress to a city that had fallen into fiscal difficulty and suffered from an unusually toxic City Hall environment. In the nearly three years I have been in Riverside, I have fully implemented a number of institutional reforms including but not limited to: a transparency initiative that quadrupled the time for Councilmembers and public to review all staff reports; uniform and universal annual personnel evaluations for all City of Riverside employees; Ward Action Teams that cut through red tape and promote geographic accountability among departments for the remediation of blight and other quality of life challenges; rotating financial and performance audits through which every City is examined and improved every 5 years; a 2 year budget cycle that forces a more conservative approach to revenue and expenditure projection; and, a set of Objective Performance Measures and benchmarks that allow policy makers to judge whether taxpayer funds are being spent efficiently. General fund reserves have doubled under my leadership. Riverside's bond ratings have improved. And a large structural general fund deficit was discovered and remedied within my first fourteen months.

As far as the economic and cultural development of the city, I was instrumental in persuading the California Air Resources board to relocate their air quality testing facility from El Monte to U.C. Riverside. I also convinced noted comedian and art collector, Cheech Marin, to donate his collection of Chicano art (believed to be the largest in the world) to a new museum in downtown Riverside. Over 1,000 housing units are approved and most are under construction in Riverside's long underutilized downtown, and finally, groundbreaking on a new hotel is scheduled for next month with another hotel (Hilton) going to council for approval next month.

ATTACHMENT 1

Finally, I was able to fashion a coalition of business and labor to create a twenty year increase in the sales tax. Measure Z, a general sales tax, won approval by just under 60% of Riverside voters, and has allowed the city to purchase new public safety fleets as well as to begin increasing the number of police officers in field operations by nearly 50%.

There is much more that has been done by the excellent staff that I have been proud to assemble and lead in Riverside.

My commitment to governmental transparency is deep and long standing. I truly believe the public has a right to know what its government is doing and I believe that transparency promotes decisive and expeditious policymaking. As a Councilmember and together with the League of Women Voters of Oakland, I authored Oakland's groundbreaking Sunshine Ordinance, which became law in 1997. Several years later, as President of the League of California Cities, we joined with the Society of Professional Journalists to write and pass Proposition 59, which gave Californians a constitutional right to open government. As Oakland City Attorney I presided over the only such office in the State of California to have an Open Government Coordinator to assist members of the public with public records and other information requests. In both Riverside and Alameda my administration promptly implemented the publication of council agenda materials 12 days before each council meeting. This allows the public to see and comment intelligently upon the City's business, and gives individual councilmembers the time they need to review the materials, consult with the community as they see fit, and question staff about data and conclusions. The change measurably improved public debate in both cities and led to more informed and efficient council meetings.

Irvine is well known throughout California as an exceptionally well run city with an unimpeachable reputation for fiscal responsibility and financial planning, and a fantastic vision for development of the Great Park. However, visions cannot be made real without a deliberate strategy — both political and administrative — that results in actual implementation. Ambition, while a critical factor in promoting any transformational change, must be a collective enterprise in which city leaders are all pulling in the same direction. This requires a City Manager that is committed to open and transparent decision making: listening to all stakeholders (citizens, business, university, public sector, and faith communities) with an open mind and yet is equally committed to decisive action and long term benefits. Process matters. Results matter more. Irvine can have both and I believe that my skill set, combined with the great leadership of the Mayor and City Council, positions us to move the city forward.

I would be honored to be considered by the Irvine City Council for this leadership role.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "John Russo", with a stylized, cursive script.

John Russo

JOHN A. RUSSO

SUMMARY OF QUALIFICATIONS

- Exceptional breadth and depth of legislative and executive management experience in municipal governance combined with extensive professional, political, and personal networks throughout California and in Washington D.C.
- A sterling statewide reputation among local elected officials and journalists as a champion for local democracy, fiscal prudence, and governmental transparency.
- Expert communication skills in all relevant venues including formal speeches, media interviews, persuasive essays, boardroom presentations, and one-to-one mentoring.
- Demonstrated track record of success in strategy, conception, and implementation of public policy initiatives at the state and municipal level.

PROFESSIONAL EXPERIENCE

CITY OF RIVERSIDE – RIVERSIDE, CA
City Manager (5/2015 – 4/2018)

Major Achievements:

- Within first year, uncovered and remedied hidden \$10M structural deficit in General Fund with unanimous council vote for cuts in all departments; converted City from annual to two-year budget; doubled City's General Fund reserve from 11.5% to 23% in under three years; persuaded bond rating agencies to improve City's bond ratings for both General Fund and other enterprise funds; ended City's practice of using enterprise funds to balance current accounts through "interfund loans."
- Dramatically improved governmental transparency through quadrupling of notice for council meetings and publication of all staff reports to 12 days before meeting date; partnered with City Clerk to create Public Records Portal, which allows residents to view and download all public record requests and responses online; ordered staff to respond to all constituent communications within 1 business day; created a citizen Budget Engagement Commission which significantly increased public participation in the budget process in every one of Riverside's seven wards.
- Implemented several essential administrative reforms including, but not limited to: a five year program of rotating financial and performance audits whereby three City departments are objectively examined by external subject matter experts each year, with a follow up agenda of improvements proposed to the City Council for action; installed a program of annual performance evaluations for every city employee; fashioned a targeted set of objective performance measures and benchmarks for every City department to assess efficiency of operations; acknowledged modern business reality with a powerful cybersecurity program to protect City and customer data.
- Personally negotiated a highly innovative labor management agreement (Partnership Compensation Model) that ties employee compensation directly to General Fund revenue performance while significantly increasing employee contributions to PERS premiums as well as establishing employee

cost sharing for increased medical premiums. Within 18 months of my start date in Riverside, all bargaining units were under four and five year contracts which promoted budgetary stability and foresight.

- Facilitated a housing, tourism, and cultural boom in long underserved downtown Riverside through carefully managed zoning and regulatory changes; worked closely with business and development partners to create One-Stop Shop (which streamlines all planning approvals), Build Riverside (which streamlines all inspection approvals), and Happy-or-Not (customer service kiosks that produce immediate customer satisfaction survey results); instrumental in persuading the California Air Resources Board to relocate their world class auto emissions testing facility to Riverside; convinced actor and philanthropist Cheech Marin to donate his Chicano art collection (the largest in the world) to a partnership of the City and the Riverside Art Museum to create the Cheech Marin Center for Art, Culture and Industry; brought to affirmative decision a major main library project that had languished for nearly 20 years; began and made significant progress on an overdue revised General Plan and Park Plan.

CITY OF ALAMEDA – ALAMEDA, CA
City Manager (6/2011 – 5/2015)

Major Achievements:

- Persuaded the US Navy to drop its longstanding demand for a payment of \$108.5M to transfer the nearly 1000 acre waterfront property known as the Alameda Naval Air Station resulting in a “no-cost” conveyance of the property to the City in 2013.
- Planned and successfully executed all entitlements for redevelopment of Alameda Naval Air Station, including zoning maps, master infrastructure plan, environmental impact reports, State Lands exchanges, and other regulatory approvals without any litigation or settlement payments due to a robust and collaborative public outreach process.
- Converted City to two-year budget; balanced City’s General Fund; dramatically increased City’s unencumbered fund balance reserve; maintained all essential municipal service levels; personally negotiated long term labor contracts tying employee compensation to General Fund performance while achieving substantial additional employee contributions to PERS and health care premium rises; and, therefore, successfully advocated with rating agencies for improved bond ratings for the City of Alameda (AA to AA+.)
- Established plan and funding for comprehensive 22-year plan to repair and replace all city sewers and roads through prudent financial management and an aggressive and productive lobbying strategy at the county level resulting in passage of Measure BB (Alameda County Transportation Tax).

CITY OF OAKLAND – OAKLAND, CA
City Attorney (2000 – 2011)

Major Achievements:

- Restructured City Attorney’s Office towards a greater emphasis on risk management, thereby resulting in significant decreases in the number of claims, lawsuits, amount of total liability payouts, and outside counsel expenditures.
- Led the City through complex and controversial cases such as the “Riders” police scandal and the \$6.7 million judgment against Lehman Brothers paid to the City for the company’s blighting of the former Oak Knoll Naval Hospital site.

- Created the nationally recognized Neighborhood Law Corps program which closed over 70 drug hotspots, shut down or remediated over two dozen problem liquor outlets, forced the rehabilitation of hundreds of substandard housing units and successfully forced Union Pacific and Caltrans to cleanup their public right-of-way.
- Created Special Prosecution Team to work in partnership with the Alameda County District Attorney to eradicate quality of life crimes in Oakland's tougher neighborhoods.
- Created the Open Government program with a dedicated staff person to ensure adherence to sunshine laws and public access to information and decision-making.

CITY OF OAKLAND – OAKLAND, CA

City Councilmember (1995 – 2000)

- Led the Council in advocating for government reform and fiscal accountability. Reformed the city budget from a one-year to a two-year budget. Implemented community policing, developed the first truly balanced budget in a generation, and authored Oakland's open government law called the "sunshine" ordinance.

BELL, ROSENBERG & HUGHES – OAKLAND, CA

Of Counsel (1996 – 2000)

- Litigated personal injury and small business disputes for construction boutique firm. Crafted legal and political strategies for clients regarding how to approach dilemmas involving different levels of government.

ROTH AND RUSSO – OAKLAND, CA

Partner / Litigator (1992 – 1995)

- Litigated a wide variety of cases for small law practice with emphasis in real estate and business.

LARSON AND BURNHAM – OAKLAND, CA

Associate (1988 – 1991)

- Handled large trials and arbitrations with emphasis on professional malpractice defense.

KAZAN AND MCCLAIN – OAKLAND, CA

Associate (1988)

- Handled extremely active law and motion calendar and dozens of depositions for toxic tort firm.

LEGAL SERVICES OF EASTERN MISSOURI – ST. LOUIS, MO

Consumer Attorney (1985 – 1987)

- Defended clients against home foreclosure and litigated cases regarding consumer fraud.

EDUCATION

New York University School of Law, Juris Doctor (1985)

- Articles Editor, *Review of Law & Social Change*
- Teaching Assistant, Tort Law

Yale University, B.A. *cum laude* - Economics & Political Science (1982)

- Clarke Prize, Best Senior Thesis in Comparative Governmental Policy
- Yale Whiffenpoofs, First Tenor
- Yale Political Union
- Class Orator, Class Day Ceremony (1982)

LICENSES

State Bar of California, #129729 (1987 – Present)

Missouri Bar, #35309 (1985 – Present)

PROFESSIONAL ORGANIZATIONS

Alameda County City Managers Association, Chair-elect (2011 – 2015)

League of California Cities, President (2002-2003) Board of Directors (1998 – 2007)

- Spearheaded initiatives with bi-partisan support to protect local tax revenues from state fiscal mismanagement (Proposition 1A) and to amend California's Constitution to ensure public access to government records and decision-making (Proposition 59).

National League of Cities, Board of Directors (2003 – 2005); Advisory Board (2005)

State Bar of California, California Young Lawyers Association, Board of Directors (1992 – 1995)

Environmental Affairs Commission, Commissioner (1992 – 1994)

Alameda County Bar Association, Barrister's Club, Vice President (1989 – 1990)

CIVIC ORGANIZATIONS

Center for Justice & Accountability, Board of Directors (2010 – 2015))

Oakland Rotary #3, member (2007 – 2015))

Colombo Club, member (2002 – Present)

Lake Merritt Breakfast Club, member (1994 – Present)

Friends of Oakland Parks & Recreation, Board of Directors (1991– 1994, President 1993)

East Bay League of Conservation Voters, Treasurer (1992 – 1993)

AWARDS & HONORS

2018 Public Partner of the Year, Inland Empire Economic Partnership

2017 Strategic Leadership and Governance Award, Cybersecurity Program, ICMA

2017 Equip to Innovate top 5 cities nationwide, Governing Magazine

2016 What Works Cities Designation, Bloomberg Foundation

2010 Making Democracy Work Award for the Neighborhood Law Corps, League of Women Voters of Oakland

2008 Distinguished Service to the Legal Profession, Italian American Bar Association

2008 Legal Service Award, Bay Area Lawyers for Individual Freedom

2005-2008 Northern California Super Lawyer, *Law & Politics* Magazine

2007 Contribution to Local Government – League of California Cities

2006 Gold Award – Award for Municipal Excellence for the Neighborhood Law Corps, National League of Cities & CH2M Hill

2005 Grand Prize – Helen Putnam Award for Excellence for the Neighborhood Law Corps, League of California Cities

2004 California Lawyer of the Year – Government/Public Policy, *California Lawyer* Magazine

2004 Guy Rousaville, Jr. In-House Diversity Award, California Minority Counsel Program

2004 Champion of Local Democracy, League of California Cities

2004 Honorary Award, Latino Caucus – League of California Cities

2004 Honorable Mention – Best Law Firm Publication, The National Burton Award

2004 Award of Excellence for Publication, Legal Marketing Association

2003 Beacon Award, California First Amendment Coalition

PUBLICATIONS

"Oakland Must Face Its Pension Debts Now," *Oakland Tribune* and *Bay Citizen*, December 30, 2010

"Oakland is Not Your Amusement Park," *Bay Citizen*, July 16, 2010

"Oakland Gang Injunction is a Chance to Save Lives," *San Francisco Chronicle* and the *Globe* by City Attorney Russo and Oakland Police Chief Anthony Batts, May 26, 2010

"It's Time to Regulate & Tax Cannabis in California," *SF Gate*, *Sacramento Bee*, *The Oakland Tribune*, April 27, 2010

"City Attorney Cracks Down on Blood Sport," *OakBook*, October 28, 2009

"Burdened Courts Should Hold Lawyers Feet to Fire," *The Recorder*, October 23, 2009

"Oakland Must Reform its Record Keeping," by City Attorney John Russo and City Auditor Courtney Ruby, *Oakland Tribune*, October 21, 2009

"Giving Dellums His Due," *OakBook*, *Oakland Tribune*, June 26, 2009

"A's Have not Made an Exhaustive Effort to Stay in Oakland," *Oakland Tribune*, April 28, 2009

"Ruling Will Help Hold Public Employees Accountable for their Work," *Daily Journal*, March 23, 2009

"Creating the Oakland that Should Be," *Oakland Tribune*, February 23, 2009

"Por Primera Vez Oakland Tiene Noticias Sobre El Crimen Que No Son Terribles," *Vision Hispana*, July 4, 2009

"Crime Is Down in Oakland as Police Presence Increased," *Oakland Tribune*, June 30, 2009

"Oakland En Una Encrucijada," *Vision Hispana*, February 28, 2009

"Oakland at a Crossroads," *Vision Hispana*, February 28, 2009

"La Proposición 8 Estuvo Del Lado Equivocado De La Historia," *Vision Hispana*, December 7, 2008

"Proposition 8 Was on the Wrong Side of History," *Oakland Tribune*, December 2, 2008

"La Policía Quiere Que Le Paguen Por Vestirse," *Vision Hispana*, November 1, 2008

"Police's Lawsuit Against Oakland Is Shameful," *Oakland Tribune*, October 22, 2008

"Oakland Necesita Mejorar El Manejo De Sus Archives," with Courtney Ruby, *Vision Hispana*, July 12, 2008

"Oakland Needs Better Handle On Its Records," with Courtney Ruby, *Oakland Tribune*, July 7, 2008

"Cómo Poner Más Policías En Las Calles De Oakland," *Vision Hispana*, June 14, 2008

"How To Put More Police On Oakland Streets," *San Francisco Chronicle*, June 5, 2008

"No Al Rocío Pesticida En El Area De La Bahía," *Vision Hispana*, April 26, 2008

"Don't Spray First and Ask Questions Later," *Oakland Tribune*, April 21, 2008

"Embargos Ocasianan Desalojos Ilegales en La Ciudad de Oakland," *Vision Hispana*, March 29, 2009

"Foreclosures Bring Illegal Evictions to Oakland," *The Globe*, Volume 5, Issue 2

"How to Protect Californians from Predatory Lending," *San Francisco Chronicle*, November 26, 2007

"Protection Needed from Predatory Lending," *Oakland Tribune*, October 19, 2007

"Harmful Speech Needs Policing," *San Francisco Chronicle*, June 28, 2007

"Referendum Committee Leaders Failed the Public," *Oakland Tribune*, March 29, 2007
 "Voters Need Protection of Full Disclosure Laws," *Montclarion*, March 23, 2007
 "Law Required Oak-to-Ninth Petition Signatures Be Invalidated," *Oakland Tribune*, October 5, 2006
 "Instant Runoff Voting – A Step toward a Healthier Democracy," *Piedmont Post*, July 20, 2006
 "Caltrans Must Be Considerate to Oaklanders," *Oakland Tribune*, August 17, 2005
 "Why Oakland Sued Caltrans," *San Francisco Chronicle*, August 17, 2005
 "Riders' Settlement was Right Thing to Do," *Oakland Tribune*, June 3, 2005
 "Democracy Needs the Election Referee to Play Fair," various publications, February 18, 2005
 "Proposition 1A Can Help Break State Habit," *Oakland Tribune*, October 27, 2004
 "Patriot Act – Forgoing Liberty for Safety?" *San Francisco Chronicle*, January 29, 2004
 "The Importance of Open Government to Local Democracy," *Western City Magazine*, League of California Cities, August 2003
 "Insurers Drive Postal Profiling," with Rocky Delgadillo and Dennis Herrera, *San Francisco Daily Journal*, July 24, 2003
 "Principles, Not Rules: Don't Miss the Forest for the Trees," *Western City Magazine*, League of California Cities, June 2003
 "Why the State's Budget Crisis Could Be a Golden Opportunity," *Western City Magazine*, League of California Cities, April 2003
 "An Affirmative Agenda for Strengthening Local Democracy," *Western City Magazine*, League of California Cities, February 2003
 "What If the Customer Isn't Right?" *Western City Magazine*, League of California Cities, December 2002
 "Keeping the Sunshine on Oakland City Government," *Oakland Tribune*, October 26, 2002
 "For Neither Fame Nor Money: Public Service in the 21st Century," *Western City Magazine*, League of California Cities, October 2002
 "FERC Is Shirking Its Responsibilities," with John Burton and Robert Hertzberg, May 31, 2001
 "An Outdated Election System," *Oakland Tribune*, January 10, 2001 *San Francisco Chronicle*, November 9, 2000

SKILLS/INTERESTS

Proficient in Spanish & Italian; literature; history; all types of sports; international soccer; golf; travel

AGREEMENT FOR EMPLOYMENT OF CITY MANAGER

THIS AGREEMENT (“**Agreement**”) is entered into on July 16, 2018 by the City of Irvine, a municipal corporation organized and existing under the laws of the State of California (“**City**”), and John A. Russo (“**Manager**”). City and Manager are sometimes individually referred to herein as a “**Party**” and sometimes collectively referred to herein as the “**Parties**.”

RECITALS

WHEREAS, the City Council of the City of Irvine (“**City Council**”), the governing body of City, desires to employ John A. Russo as the City Manager of the City of Irvine effective July 16, 2018 as provided by Article V of the Charter of the City of Irvine and Title 1, Division 3 of the Irvine Municipal Code and the terms and conditions set out herein.

WHEREAS, the City and Manager have entered into this Agreement in recognition of the benefits accruing to each Party; and

WHEREAS, this Agreement will ensure the retention of Manager’s services as City Manager and the performance of the duties of the office in a manner which serves the best interests of City, subject always to the direction of the City Council; and

WHEREAS, this Agreement shall further provide for an equitable manner of termination of Manager’s employment with City in certain circumstances.

TERMS

NOW, THEREFORE, in consideration of the faithful performance of the terms and conditions set forth below, the Parties agree as follows:

1. **EMPLOYMENT AS CITY MANAGER; DUTIES.** City agrees to employ Manager as City Manager of the City of Irvine, and Manager agrees to serve as City Manager of the City of Irvine, performing the duties and responsibilities as set forth in Article V of the Charter of the City and Title, 1, Division 3 of the Irvine Municipal Code, and in accordance with applicable provisions of State law. Manager shall further perform such other legally permissible and proper duties and functions as the City Council may from time to time assign.

2. **TERM; WORK SCHEDULE.** Manager’s term as City Manager become effective on July 16, 2018 and shall remain in effect for a period of two (2) years (“**Term**”), unless otherwise terminated pursuant to the provisions stated herein. At the end of the Term, this Agreement may be extended upon mutual agreement of the Parties. During the Term, Manager shall be a full-time City Manager of the City of Irvine. Manager’s normal work schedule shall be during normal business hours Monday through Friday during the Term.

3. **SALARY.** During the Term, Manager shall receive an annual salary of Three Hundred Three Thousand Fourteen Dollars and Forty Cents (\$303,014.40) per year. Except as may otherwise be provided, Manager’s salary, and other compensation provided for in this

ATTACHMENT 2

Agreement, shall be paid in increments in the same manner as for other City employees. Manager's salary shall be adjusted as follows:

3.1 **MANAGEMENT ADJUSTMENTS.** Manager shall receive the same percentage salary adjustments as the City may from time to time confer upon the class of employees designated by the City as "Management."

3.2 **MERIT INCREASES.** The City Council may from time to time grant merit increases to Manager's salary provided above, as follows: If after each evaluation of the Manager's performance, as described in Paragraph 5 of this Agreement, the City Council concludes that Manager's performance warrants an adjustment for merit, the City Council may grant a merit adjustment in an amount determined by the City Council, to be effective on a date determined by the City Council. Such merit adjustments may be granted on one or more occasions during a year and may be in the form of lump sum payments, adjustments to annual salary or any other form determined by the City Council, but shall be in addition to any adjustments made in accordance with Subparagraph 3.1.

4. **BENEFITS.** During the Term, Manager shall be entitled to receive the benefits described in Subparagraphs 4.1 through 4.4 below.

4.1 **VACATION.** Manager shall receive one hundred twenty (120) hours of vacation leave effective upon the commencement this Agreement. Manager shall accrue no additional vacation benefits between July 16, 2018 and July 15, 2019. Commencing on July 16, 2019, Manager shall begin accruing additional vacation benefits at a rate of one hundred twenty (120) hours per year. Upon termination or of his employment with the City for whatever reason, Manager shall be paid for any unused accrued vacation, to the extent allowable under the current Management Employee Compensation Resolution and any successor resolutions, agreements, or the like (collectively, the "**Current Resolution**").

4.2 **SICK LEAVE.** Manager shall receive forty (40) hours of sick leave benefits effective upon commencement of this Agreement. Manager shall, in addition, accrue sick leave in accordance with the Current Resolution.

4.3 **PHYSICAL EXAMINATION.** It is in the City's best interest that Manager maintains good health and the physical ability to fulfill the duties as City Manager. Toward this end, the City shall pay the full cost of one complete annual physical examination for Manager, conducted by the physician of Manager's choice. The cost to the City shall be offset by any payment made by Manager's health insurance carrier toward the cost of the examination.

4.4 **OTHER BENEFITS.** Except as provided otherwise herein, Manager shall receive any and all other supplemental benefits including, but not limited to, personal sick leave, personal leave, bereavement leave, parenthood leave, administrative leave, holidays, pension/retirement (PERS) benefits and payments (including those relating to the retiree health plan), health insurance, dental insurance, vision insurance, life insurance, disability insurance, flexible spending account, telecommunications allowance, vehicle allowance, and management incentive pay. Except as otherwise provided herein (in Subparagraph 4.1

and 4.2, above, and Subparagraph 7, below), all actions undertaken by City relating to benefits for management employees shall be considered actions affecting the same benefits applicable to Manager.

5. **PERFORMANCE EVALUATION BY CITY COUNCIL.** The Mayor and the City Council are responsible for setting performance goals on an annual basis in consultation with the City Manager. The City and Manager acknowledge that periodic performance evaluations are an important means by which the City Council and the City Manager may ensure effective communications regarding expectations and performance. Toward this end, the City Council shall review and discuss Manager's performance in or around July of 2019. The City Council may in its discretion conduct additional evaluations of Manager's performance at such times as it deems appropriate.

6. **TERMINATION OF EMPLOYMENT.** Notwithstanding anything in this Agreement to the contrary, this Agreement may be terminated prior to the expiration of the Term as follows:

6.1 **VOLUNTARY RESIGNATION.** Manager may voluntarily resign by delivering a letter of resignation to the City Council not less than thirty (30) days prior to the effective date of resignation. Promptly after the effective date of resignation, the City shall pay to Manager all salary and benefits amounts both accrued and owing under this Agreement and other applicable laws, rules, programs, and policies of the City, State and Federal government.

6.2 **TERMINATION BY COUNCIL.** Notwithstanding the Term provided in Paragraph 2 of this Agreement, the City Council may remove and terminate Manager in accordance with the following:

(a) **With Cause.** At any time the City Council may remove and terminate Manager for cause, which for purposes of this Agreement shall be defined as follows: (1) any criminal act involving moral turpitude, fraud, malfeasance, or act of misfeasance, (2) loss of mental capacity for more than six consecutive months as determined by a court of competent jurisdiction; (3) habitual or willful neglect of duty; (4) willful destruction or misuse of City property; (5) habitual intoxication on duty, whether by alcohol or non-prescription drugs; (6) inexcusable absence without leave; (7) willful political activity involving the support of candidates for City Council or Charter amendments; (8) willful violation of the Federal, State or City discrimination laws concerning race, religious creed, color, national origin, ancestry, physical handicap, marital status, sex or age concerning either members of the general public or City employee(s) while acting in the course and scope of employment, and while acting without the prior approval or direction of the City Council; (9) willful and unlawful retaliation against any other City officer or employee or member of the general public who in good faith reports, discloses, divulges, or otherwise brings to the attention of any appropriate authority any facts or information relative to actual or suspected violations of any law occurring on the job or directly related thereto; (10) willful violation of any conflict of interest or incompatibility of office laws; (11) performance of material outside business interests that conflict directly with the activities and duties as City Manager, but

not including educational or professional training programs conducted by Manager whether for personal financial gain or not; and (12) refusal to take or subscribe any oath or affirmation which is required by law; each a “Cause.” In the event the termination is for Cause, the City shall provide Manager with a written statement describing the Cause and shall offer Manager a name-clearing hearing before the City Council at a reasonable time and upon reasonable notice, consistent with Irvine Municipal Code section 1-3-114 through 1-3-119.

(b) Without Cause. City and Manager hereby expressly agree that the employment relationship created by this Agreement is “at will” and that Manager serves at the will and pleasure of the City Council. Consistent with the foregoing, at any time during the Term of this Agreement, the City Council may remove and terminate Manager without Cause upon notice delivered in writing. However, in case of removal or termination without Cause, Manager shall be entitled to the benefits of Subparagraph 6.3(a), below.

6.3 COMPENSATION IN CASE OF TERMINATION

(a) With Cause. If Manager is involuntarily terminated by the Council with Cause, City shall have no obligation to continue the employment of Manager and shall have no obligation to make any severance payments (or other payments beyond salary due to Manager through the date of termination), or continue in force any benefits provided for under this Agreement.

(b) Without Cause. If Manager is involuntarily terminated by the Council without Cause, City agrees to pay Manager within fifteen (15) days of the date of such termination: (i) a lump sum cash payment (“**Severance Pay**”) equal to two (2) months (“**Severance Period**”) of the base salary Manager is receiving on the date of the Council’s action to terminate Manager, or as many months as then remain on Manager’s contract term, whichever is less, less legally required or authorized deductions; and (ii) City shall pay Manager’s Consolidated Omnibus Budget Reconciliation Act (“**COBRA**”) premiums for COBRA insurance coverage otherwise available to Manager, for the Severance Period, or as many months as then remain on Manager’s contract term, or until Manager becomes ineligible for COBRA, whichever is less. In exchange for and as a condition to receipt of the Severance Pay, Manager shall execute a release and waiver, in a form acceptable to the City Attorney, releasing the City from any and all claims associated with Manager’s termination.

7. **PROFESSIONAL DEVELOPMENT.** The City acknowledges its interest in the continuing professional development of Manager and agrees to allow and pay all expenses associated with attendance at annual conferences of the International City/County Management Association, League of California Cities, and California City Managers Association. Further, the City agrees to pay the membership dues for Manager in the International City/County Management Association and City Manager’s Department of the League of California Cities. With the prior consent of the Council, the City agrees to allow Manager to attend and participate in such other professional associations and conferences as may be mutually agreeable to both Parties. The City acknowledges the right of Manager to engage in other professional activities as long as they do

not interfere or conflict with Manager's duties as City Manager. Such professional activities may include teaching, writing, consulting and others.

8. MISCELLANEOUS.

8.1 EXPRESSION OF INTENT REGARDING RESIDENCY. Manager expresses an intent to relocate from his current residence to a location within or in close proximity to Irvine prior to the expiration of the Term.

8.2 CONTRACT PROVISIONS CONTROLLING. To the extent the provisions of this Agreement are inconsistent with the provisions of Irvine Municipal Code section 1-3-104 and/or 1-3-108, the provisions of this Agreement shall control.

8.3 INDEMNIFICATION. The City shall defend, hold harmless and indemnify Manager against any tort, professional liability claim or demand or other legal action, whether groundless or otherwise, arising out of any alleged act or omission occurring in the performance of Manager's duties to the City. In its sole discretion, the City may compromise and settle any such claim or suit and pay the amount of any settlement or judgment rendered therefrom.

8.4 OTHER RIGHTS OF PARTIES. Unless expressly set forth in this Agreement, nothing in this Agreement shall abrogate any rights, responsibilities, benefits or privileges to which either Party would otherwise be entitled.

8.5 AMENDMENT OF AGREEMENT. This Agreement may be amended in writing by mutual agreement of the Parties.

8.6 STATE LAW. The rights and obligations of the Parties to this Agreement shall be governed by the laws of the State of California.

8.7 RECITALS. The recitals set forth above are incorporated by reference into this Agreement.

8.8 FAILURE TO ACT OR DELAY OF ACTION. No failure to exercise and no delay in exercising any right, remedy or power set forth in this Agreement shall operate as a waiver to the exercise of that right, remedy or power in the future.

8.9 ENTIRE AGREEMENT. This Agreement contains the entire agreement between the Parties. No promise, representation, warranty, or covenant not included in this Agreement has been or is relied upon by either Party to this Agreement.

8.10 SEVERABILITY. Should any paragraph, subparagraph, sentence, clause, phrase or word included in this Agreement be found invalid by a court of competent jurisdiction, the balance of this Agreement shall remain in full force and effect.

8.11 NOTICES. Notices pursuant to this Agreement shall be in writing and shall be personally served, given by mail or by overnight delivery. Any notice given by mail shall be deemed given when deposited in the United States Mail, certified and postage

prepaid, addressed to the respective Parties at One Civic Center Plaza, Irvine, CA 92623-9575, or such other address as may be given, in writing, to the other Party.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year written at the beginning of this Agreement.

CITY:
City of Irvine

MANAGER:

By: _____
Mayor

By: _____
John A. Russo

ATTEST:

City Clerk

APPROVED AS TO FORM:



City Attorney

CITY COUNCIL RESOLUTION NO. 17-63

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ESTABLISHING A CLASSIFICATION AND COMPENSATION POLICY FOR MANAGEMENT AND NON-REPRESENTED EMPLOYEES (EXEMPT) OF THE CITY OF IRVINE, AND SUPERSEDING RESOLUTION NO. 15-80 EFFECTIVE THE PAY PERIOD THAT INCLUDES AUGUST 11, 2017

WHEREAS, revisions have been made to the Classification and Compensation Policy; and

NOW, THEREFORE, the City Council of the City of Irvine DOES HEREBY RESOLVE as follows:

SECTION 1. ANNUAL COMPENSATION FOR MANAGEMENT AND NON-REPRESENTED EMPLOYEES

The pay grades for Management and Non-Represented Employees of the City of Irvine shall be set forth as shown in the applicable salary resolution adopted by the City Council.

SECTION 2. OTHER COMPENSATION COMPONENTS

Eligible exempt Management and Non-Represented employees shall receive additional compensation benefits as follows:

1. Pension:

A. The provisions of this Section 2.1 shall apply to all employees, as of June 30, 2003, who elected to decline the CalPERS benefits.

1. The City shall invest an amount equal to 12.448% of each employee's base salary in the City of Irvine Defined Contribution Pension Plan (DCPP) for employees who are actively employed in the unit on or after this Resolution is approved by the City Council. Employees shall become fifty percent (50%) vested in such plan upon completion of the initial six months of employment. Thereafter, such vested interest shall increase at the rate of 5% for every Plan Year in which the employee completes 1000 hours of service. Once the employee has completed five (5) years of service, he/she shall become 100% vested in the retirement plan.
2. The City will deduct an amount equal to 6.552% of each employee's base salary to invest in the City of Irvine DCPP. It is understood that this

payroll deduction shall be mandatory for all employees who elect to remain in the City of Irvine DCPD.

3. All employees who elected to remain in the City of Irvine DCPD shall not be entitled to any CalPERS benefits, past, present or future, as provided under Section 2.1.B of this Resolution. If employees elected to remain in the City of Irvine DCPD, such participation shall continue until the employee terminates their employment from the City for any reason.
 4. The City will utilize retirement plan forfeitures to offset the cost of City of Irvine DCPD account management and administrative fees.
- B. The provisions of this section B.1 shall apply to employees, as of June 30, 2003, who elected to waive their rights to the City of Irvine Defined Contribution Pension Plan (DCPD) and who elected to transfer to the CalPERS program.
1. The City's contract with CalPERS shall include the following options:
 - a. 2.7% @ 55 Full Formula for Local Miscellaneous Members (Cal. Govt. Code Section 21354.5)
 - b. One Year Final Compensation (Cal. Govt. Code Section 20042)
 - c. Military Service Credit as Public Service (Govt. Code Section 21024), in which the employee pays the entire cost
 - d. Improved Non-Industrial Disability Allowance (Cal. Govt. Code Section 21427)
 - e. 4th Level 1959 Survivor Benefits (Govt. Code Section 21574)
 - f. Limit Prior Service to Members Employed on Contract Date (Govt. Code Section 20938)
 2. All eligible employees hired on or after July 5, 2003, the effective date of the CalPERS contract, shall become members of the CalPERS Retirement Program.
 3. All active eligible employees shall be members of CalPERS, unless they elected to decline the CalPERS benefits through the irrevocable election process. All employees covered by CalPERS shall no longer be entitled to any benefits past, present or future, provided under the City of Irvine DCPD referenced in Section 2.1.A above.

4. Once a member of the CalPERS plan, such participation shall continue until the employee terminates employment with the City for any reason.
 5. The CalPERS vesting schedule will apply (Cal. Govt. Code Section 21060).
 6. Employer-Paid Member Contributions and New CalPERS Miscellaneous Tiers
 - a. The full eight percent (8%) cost of the CalPERS member contributions will be paid by the employee.
 - b. Effective April 14, 2012, the City implemented the 2% @ 55 retirement program with the average of the three highest paid consecutive years for all miscellaneous employees hired on or after that date. Employees in the 2% @ 55 plan will pay the full 7% Member Contribution for the entire term of their employment.
 - c. All "new members" within the meaning of the California Public Employees' Pension Reform Act of 2013 hired by the City on or after January 1, 2013, will be placed in the City's Tier 3 plan; 2% at 62 formula for Miscellaneous employees. Employees will pay the full employee contribution, which will be one-half the normal rate as determined by CalPERS and there shall be no employer payment of any of the required employee contribution.
- C. The Sworn employees listed in Attachment I shall become a member of the CalPERS retirement plan for local safety employees, pursuant to the contract between the City and CalPERS.
1. Once a member of the CalPERS plan, such participation shall continue until the employee terminates employment with the City for any reason.
 2. The CalPERS vesting schedule will apply (Cal. Govt. Code Section 21060).
- For employees who are members of the City's 3% at 50 CalPERS, the full nine percent (9%) member contribution will be paid by the member, through pre-tax payroll deduction.
3. All "new members" within the meaning of the California Public Employees' Pension Reform Act of 2013 hired by the City on or after January 1, 2013, will be placed in the City's Tier 3 plan; 2.7% at 57 for Sworn employees. Employees will pay the full employee contribution, which will be one-half the normal rate as determined by CalPERS and

there shall be no employer payment of any of the required employee contribution.

4. Employer paid member contributions shall be considered deferred income for federal and state income tax purposes. Should any state or federal agency alter the current income tax treatment of such payments, the consequences of such action shall be the sole responsibility of the affected employees, and shall in no way alter any obligation of the City toward such employees.

2. Retiree Health Plan

- A. The City shall contribute an amount equal to two percent (2%) of each employee's base salary in a Retiree Health Savings (RHS) account, which shall be administered by the employees covered by this Resolution.
- B. An employee who has retired from the City and has either attained the age of sixty (60) years or is fifty (50) years old and has completed five (5) years of service with the City shall be entitled to purchase the medical insurance plan in effect at the time of retirement at the City's rates for the employee and the employee's dependents at the cost to the former employee, now retiree.
- C. The City will allow a spouse of an eligible retired unit member to continue to purchase the medical insurance after the death of the retired employee, provided that the spouse was covered under a City insurance plan at the time of employee's death and provided that there has been no break in coverage since the employee's retirement. This eligibility for continued coverage ceases if such spouse remarries.
- D. Each representation unit has determined the type of retiree health program in which its members shall participate. In order to ensure that the employees can maximize their benefits, the City agrees to allow employees to remain in the designated type of retiree health program throughout their service with the City, whether or not the employee moves to another representation unit(s). In the event an employee moves to another representation unit, the City will contribute an amount up to the contribution established for the new unit's retiree health plan and the employee will not be eligible to participate in any other non-voluntary health plan offered to City employees. If the City's contribution toward a retiree health plan in the new unit is less than what is required for the employee's designated retiree health plan, the difference will be deducted from the employee's pay.

3. Health Insurance Benefits

A. Indemnity Medical Insurance

The City shall provide the option to employees to enroll in a medical indemnity insurance plan.

B. Indemnity Dental Insurance

The City shall provide the option to employees to enroll in a dental indemnity insurance plan.

C. Health Maintenance Organizations

The City shall provide the option to employees to enroll in a health maintenance organization and/or a dental maintenance organization.

D. Vision Care Plan

The City shall provide a vision care plan.

E. For employees who choose the PPO medical plan, the total cost to the City for medical, dental, psychological and vision insurance shall not exceed \$694.04 per month, per employee, \$754.04 per month, per employee plus one (1) dependent or \$1,064.31 per month per employee plus family. The medical tier that the employee selects will drive the insurance cap that is applied to the employee's health benefit selections.

F. Employees have the option of enrolling themselves and/or their dependents into a no-cost medical plan rather than being subject to the cap as set forth in item F., above. Under the no-cost plan, the City will provide any HMO Medical Plan and any HMO Dental Plan offered by the City, as described in item F. above. Under this option, employees may choose to upgrade from the HMO Dental Plan to the PPO Dental Plan, however the employee will be required to pay the difference in premium between the HMO Dental Plan and the PPO Dental Plan.

Effective January 1, 2015, any increase in the cost of the HMO Medical Plans over the costs in effect December 31, 2014, will be borne as follows: The City will pay 95% of the increased cost, and employees enrolled in HMO Medical Plans will pay the remaining 5% of cost increases in annual premiums. Each year thereafter, the amount paid by employees in prior years will be added to that portion of the increase (five percent 5%) the employees will pay in the current year.

4. Disability Insurance

The City shall provide a long-term disability insurance plan for employees.

5. Life Insurance

Employees covered by this Resolution shall be provided a life insurance policy in the amount equal to a full year's base salary rounded up to the next \$1,000.

6. Flexible Spending Account

Employees may use pre-tax dollars to pay for eligible medical and dependent care expenses per Internal Revenue Code Sections 125 and 129. The City will use what legal means exist to recover cost for claims paid in advance of sufficient employee payroll deduction being made upon the employee's separation from the City.

7. Expense Allowances

A. Vehicle/Vehicle Allowance

Management employees listed in Sections A and B of Attachment I shall be provided a vehicle at City expense or a monthly vehicle allowance. Those classifications listed in Section C of Attachment I shall be provided a monthly vehicle allowance. The City Manager may approve use of a City vehicle or mileage reimbursement for those miles traveled in the employee's vehicle, which exceed the miles covered by the vehicle allowance based on the current mileage rate

Classifications in Section A and B	\$550
Classifications in Section C	\$300

B. Telecommunications Allowance

Employees listed in Sections A, B and C of Attachment I shall be provided a \$100.00 monthly allowance for cellular service. In addition, a reimbursement of up to \$200 for cellular equipment will be provided upon receipt of invoice initially (following appointment to an affected classification) and once every two years thereafter, if necessary to replace existing equipment. All contracts for cellular service for these employees shall be between the provider and the individual.

8. Vacation

Management and Non-Represented employees shall accrue vacation credits on a monthly basis as follows:

<u>Years of Service</u>	<u>Annual Vacation Credits</u>
1 through 3	120 hours
After 3 through 10	160 hours
After 10 years or more	200 hours

As an incentive for filling critical management and non-represented positions, as part of an offer of employment, the City Manager may grant a vacation balance of one week upon appointment.

Employees may not accrue more than three (3) times their annual accrual rate of vacation. When an employee earns vacation in excess of the maximum accrual, the employee shall be paid for vacation during the pay period earned and at the employee's base rate of pay.

The dates an employee may take her/his vacation shall be determined by the Department Director or the City Manager with due regard for the wishes of the employee and particular regard for the needs of the City. Other policies related to the accrual and use of vacation shall be as provided in the Personnel Rules and Procedures.

9. Vacation Buyback

On or before the pay period which includes December 15 of each calendar year, an employee may make an irrevocable election to cash out up to eighty (80) hours of accrued vacation (in whole hour increments) which will be earned in the following calendar year at the employee's base rate of pay. The employee will receive cash for the amount of vacation the employee irrevocably elected to cash out in the prior year. Payment will be made by Thanksgiving. However, if the employee's vacation leave balance is less than the amount the employee elected to cash out (in the prior calendar year) the employee will receive cash for the amount of leave the employee has accrued at the time of the cash out.

10. Personal Sick Leave

Employees shall accrue personal sick leave credits at the rate of eight (8) hours per month.

Unless unforeseen and extenuating circumstances arise, in order to receive compensation while absent on sick leave, the employee shall notify her/his

immediate supervisor or the Personnel Officer prior to or within one (1) hour after the time set for beginning her/his daily duties, or as may be specified by the head of her/his department. When absence is for one workday or more, the employee may be required to file a physician's certificate with the Personnel Officer, stating the cause of absence.

An employee receiving temporary disability payments under the Workers' Compensation laws may use a pro-rated amount of accumulated sick leave in order to continue to maintain her/his regular income. Under such circumstances, the employee shall submit any benefit payments from the Workers' Compensation fund to the Finance Officer.

An employee may be required to provide a doctor's release to return to work following an illness or injury resulting in an inability to perform assigned duties.

11. Personal Sick Leave Conversion

Employees having less than ten (10) years of consecutive full-time service shall be eligible, if they so desire, each quarter (January 1, April 1, July 1, October 1) to convert unused personal sick leave in excess of 168 hours at a ratio of eight (8) hours of vacation for every twenty-four (24) hours of personal sick leave. Employees with at least ten (10) years of full-time consecutive service shall be eligible to convert sick leave in excess of 168 hours at the ratio of eight (8) vacation hours for sixteen (16) sick leave hours. One hundred sixty-eight (168) hours must be accrued and retained prior to converting any excess personal sick leave hours to vacation hours.

Effective the pay period following April 1 of each year, regular full-time employees, whose unused personal sick leave has accumulated to more than 700 hours, must convert those hours in excess of 700 into their respective individual accounts in the Management Retiree Health Savings Plan, subject to a maximum conversion of 120 hours of sick leave per employee per year. The conversion of personal sick leave into the Retiree Health Savings Plan shall occur as follows:

- A. The City will convert unused sick leave into the Retiree Health Savings Plan for regular full-time employees having less than ten (10) years of consecutive full-time service at a ratio of three (3) hours of sick leave to one (1) hour of pay at the employee's current base salary rate.
- B. The City will convert unused personal sick leave into the Retiree Health Savings Plan for regular full-time employees with at least ten (10) years of consecutive full-time service at a ratio of two (2) hours of sick leave to one (1) hour of pay at the employee's current base salary rate.

Upon separation regular full-time employees must convert all remaining sick leave hours into their respective individual accounts in the Retiree Health Savings Plan as follows:

1. The City will convert unused personal sick leave into the Retiree Health Savings Plan for regular full-time employees having less than ten (10) years of consecutive full-time service at a ratio of three (3) hours of sick leave to one (1) hour of pay at the employee's current base salary rate.
2. The City will convert unused personal sick leave into the Retiree Health Savings Plan for regular full-time employees with at least ten (10) years of consecutive full-time service at a ratio of two (2) hours of sick leave to one (1) hour of pay at the employee's current base salary rate.

Employees who separate due to termination for cause or resignation/retirement in lieu of termination for cause shall not be eligible to convert their sick leave into the Retiree Health Savings Plan.

12. Personal Leave

Effective the pay period which includes January 1st of each year, employees shall receive a Personal Leave Benefit of seventy-one (71) hours per year. Such leave shall be available for employees to use from the beginning of the first pay period beginning in the calendar year through the end of the last pay period beginning in the calendar year. Such hours shall not accrue from year to year. This leave has no cash value and cannot be cashed out. If, at the end of the calendar year, the employee has any of this leave on the books, with the pay period including January 1, he/she will be provided with whatever amount of leave is necessary to bring his/her bank up to 71 hours. Probationary employees who commence employment with the City after January 1 will receive twenty four (24) less Personal Leave hours for every four (4) months the employee is not on paid status with the City.

The employee shall notify his/her immediate supervisor of the use of a Personal Leave day at least 36 hours in advance unless circumstances beyond the employee's control prevent such notification.

13. Bereavement Leave

Employees shall receive up to forty (40) hours for any one instance for absence necessitated by the death of immediate family members. Such credit shall not be accrued from year to year. The immediate family shall be defined as mean father, father-in-law, mother, mother-in-law, step-parent, brother, step-brother, sister, step-sister, wife, husband, registered domestic

partner, child, step-child, grandparent, grandparents in-law, grandchild, legal guardian or other individuals whose relationship to the employee is that of a dependent, a domestic partner as defined by California Family Code section 297, or a person who stood *in loco parentis* (in place of a parent) to the employee.

14. Parenthood Leave

An employee may be granted a temporary parenthood leave of absence without pay, not to exceed 180 calendar days per year, upon approval from the City Manager. The employee requesting such leave shall present evidence of the birth or adoption of a child by the employee or spouse to his/her Department Director. The City will comply with all elements of parenthood leave under the Family Medical Leave Act and the California Family Rights Act. . Any such leave will run concurrently with parenthood leave as provided for under the FMLA and CFRA.

15. Administrative Leave

Effective the first pay period beginning in January of each year, employees in classifications listed in Section A, B, C or D of Attachment I will receive forty (40) hours of Administrative Leave per calendar year. Administrative Leave will be prorated on a monthly basis for management and non-represented employees appointed during the calendar year. Additional Administrative Leave may be approved by the Department Director or City Manager. Administrative Leave must be used by the end of the calendar year. Such hours shall not accrue from year to year or be paid off upon termination. . This leave has no cash value and cannot be cashed out. If, at the end of the calendar year, the employee has any of this leave on the books, with the pay period including January 1, he/she will be provided with whatever amount of leave is necessary to bring his/her bank up to 40 hours.

16. Education/ Reimbursement/Professional Development/Professional Advancement

Employees shall be eligible for reimbursement of approved education or professional development expenses to a maximum of \$1,300 per calendar year.

Up to \$500 of the employee's annual professional development fund may be used towards travel, expenses for City approved conferences, seminars, job-related training, and/or certified wellness programs for Sworn employees in accordance with Irvine Police Department and City Policy. Employees using professional development funds for travel-related purposes shall be subject to all guidelines established by City travel policies and procedures.

Up to \$250 of the employee's annual professional development funds may be used toward supplementing un-reimbursed expenses for his/her annual physical examination, subject to the provisions of Article 24 of the City's Personnel Rules and Procedures.

The sworn employees listed in Attachment I shall be eligible for a twelve percent (12%) Professional Advancement benefit upon attaining a California P.O.S.T. Executive Development Certificate or completion of a FBI National Academy program or completion of a Master's Degree or comparable extended professional management training program.

17. Holidays

The recognized holidays to be observed by the City in each calendar year shall be as follows:

New Year's Day
Martin Luther King Jr. Day
Washington's Birthday
Memorial Day
Independence Day (4th of July)
Labor Day
Veterans Day
Thanksgiving Day
Day after Thanksgiving
Christmas Eve
Christmas Day

Prior to the beginning of the calendar year, Administrative Services will designate and announce the dates on which the above referenced holidays shall be observed. Human Resources may designate alternate dates the City will observe holidays in order to occur in conjunction with the Holiday Leave benefit provided below.

Full-time employees shall receive nine (9) hours pay for each holiday observed on a Monday, Tuesday, Wednesday, or Thursday. Employees shall receive eight (8) hours pay for each holiday observed on a regularly scheduled working Friday. Regular full-time employees working an eight-hour (8), five-day (5) schedule will receive eight (8) hours for each of these holidays.

Holiday Leave

Effective in December 2017 and each year thereafter, employees in the unit will not be required to come to work and will be provided with three days of paid leave to be used in the pay period that includes the Christmas Eve, Christmas Day and New Year's Holidays. The dates of the three "Holiday

Leave” days will be designated annually by Human Resources. Employees will be provided with three days of paid leave based on the number of hours they are regularly scheduled to work on designated “Holiday Leave” days. Employees must use this leave on the designated days unless directed to work by the Department Director or designee. In cases where the employee is directed to work on such days, the employee will be credited with leave in an amount equivalent to what they would have used had they not been directed to work. In cases where a designated “Holiday Leave” day falls on an employee’s regularly scheduled day off, the employee will be credited with leave in an amount equivalent to what they would have used had it been a regularly scheduled work day. Such leave shall have no cash value, and will expire if not utilized within the pay period that includes November 30 of the following year.

Employees wanting to take additional days off in conjunction with the observed Holidays and designated Holiday Leave Days must utilize other accrued leave in accordance with existing rules.

For 2017, the following shall be observed:

Monday 12/25 - Christmas Day Eve
Tuesday 12/26- Christmas Day
Wednesday 12/27- Holiday Leave
Thursday 12/28- Holiday Leave
Friday 12/29- Holiday Leave

For 2018, the following shall be observed:

Monday 12/24-Christmas Eve
Tuesday 12/25-Christmas Day
Wednesday 12/26- Holiday Leave
Thursday 12/27- Holiday Leave
Friday 12/28- Holiday Leave

18. Jury Duty and Subpoenas

Every employee of the City who is subpoenaed as a witness for a local, state or federal government shall be entitled to absent herself/himself from her/his duties with the City during the period of such service or while necessarily being present in court as a result of such call or subpoena, and shall receive full compensation.

In order to balance the City of Irvine's interest in maintaining productivity with the interest that employees are able to support our system of justice by serving on juries, paid Jury Duty is limited to a maximum of 80 hours in a calendar year. If an employee, despite reporting the limit to the Court, is

required to serve beyond 80 hours he or she can request an exception of the limit on paid Jury Duty Leave by the City Manager

If an employee is required to be absent from work to report for jury duty, the employee will notify his/her supervisor of the absence as soon as possible, including, a phone message the night before if the employee finds out via a phone recording that he/she must report the next day.

An employee on jury duty must either return to work after the jury service is done for the day if there are still four hours left on his/her shift or call in to his/her supervisor and ask to use leave to cover the rest of his/her shift.

For any additional time taken off before or after jury duty, an employee will be required to utilize paid accrued time subject to supervisor approval.

An employee who is called to jury duty on a non-working day will not receive compensation or be authorized to change their schedule as a result of being called to jury duty.

19. Military Leave

Employees shall be entitled to such benefits as are provided by law. An employee requesting such military leave shall present a copy of her/his military orders to her/his Department Director or the City Manager prior to the beginning of the leave.

20. Physical Examination

The City shall reimburse employees in classifications listed in Sections A, B or C of Attachment I up to a maximum of \$350 per calendar year for expenses incurred as a result of an annual physical examination as defined in Article 24 of the City's Personnel Rules and Procedures. The City shall reimburse employees in classifications listed in Section D of Attachment I up to a maximum of \$250 per calendar year for expenses incurred as a result of an annual physical examination as defined in Article 24 of the City's Personnel Rules and Procedures. An annual physical is optional. Expenses eligible for payment by the City health insurance plan shall not be eligible for reimbursement.

21. Industrial Accident Salary Continuance

In the event that it is determined that a full-time employee is absent from work as a result of any injury or disease arising solely out of the employment with the City and in no way related to any prior existing condition, the City shall provide up to six (6) months of Industrial Accident Salary Continuance during any two-year period under the following conditions:

- A. In the event the employee qualifies for compensation under State law, the employee shall receive the difference between the Workers' Compensation payments and his/her regular salary;
- B. The employee shall accrue sick leave or vacation leave during the term of the Industrial Accident Salary Continuance taken;
- C. The employee's condition is not permanent and stationary as determined by the City's appointed physician.

For sworn CalPERS members, the City shall follow the provisions of Section 4850 of the California Labor Code when that member is disabled by injury or illness arising out of and in the course of his/her duties.

In the event of an on-the-job injury or accident resulting in loss of time beyond that required for immediate medical attention, such employee may be required to be examined by a licensed physician appointed by the City of Irvine.

Any on-the-job injury or accident must be reported to the employee's immediate supervisor within twenty-four (24) hours after said injury or accident. Failure to report said injury or said accident shall be grounds for disciplinary action.

22. Accrual of Leaves

All paid leave hours accrued shall be prorated based on the number of hours worked or paid up to eighty (80) hours in a pay period.

23. Select Benefits Program

The City will provide a cafeteria-style benefit program for Management and Non-Represented employees to include the following general elements:

- A. Enhanced choices among City-offered health benefit plans.
- B. Employees not claiming dependents on their health plan shall receive \$150 per month. The stipend may be taken as taxable cash.

24. Management Incentive Pay

Management employees in the classifications listed in Sections A, B, and C of Attachment 1, shall be eligible to receive 3% Management Incentive Pay above the base salary, in recognition for the unique nature of their work.

25. Bilingual Pay Program

Department Directors shall annually designate which positions will be assigned bilingual duties and which languages shall be eligible for bilingual pay. Qualified employees who meet the following criteria shall receive an additional \$50.00 per month.

- A. An employee must be assigned to speak or translate a language in addition to English as part of their position responsibilities. This includes such specialized communication skills as sign language.
- B. To become qualified, employees must be certified as qualified by the Personnel Officer or designee.
- C. For positions requiring extensive contact with the public or contractors, bilingual pay will be rotated among employees who are deemed as qualified by the City. The Department Director will have the discretion to determine the number of employees and the sections/units that qualify to participate in a "rotation pool." Rotations will occur every 12 months, effective the first pay period each November. It is the Department Director's sole discretion to determine the order of rotation among the qualified employees. An employee who has not performed bilingual duties within the rotation for a period of 24 months or longer must be re-certified by the City in order to receive bilingual pay.

An employee in a bilingual assignment may request to have the bilingual assignment and corresponding pay removed.

SECTION 3. PAY PROGRESSION IN A PAY GRADE

1. Base Pay Progression

Pay progression within a Salary Grade will be based strictly upon individual performance and summarized in an annual performance appraisal. For employees listed in Sections B, C, and D of Attachment I, all base pay progression within pay grades will be limited to the Market Point of a pay grade according to the following schedule:

<u>Salary Placement in Pay Grade</u>	<u>Performance Level</u>	<u>Pay Increase</u>
Less than Maximum Range	Unsatisfactory or Needs Development	0%

Less than Maximum Range	Accomplished Standards	3% base adjustment, limited to Maximum of pay grade
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Less than Maximum Range	Excellent	4 ½% base adjustment, limited to Maximum of pay grade
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Less than Maximum Range	Outstanding	6% base adjustment, up Maximum of pay grade
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Annual merit increases will be effective the payroll period that includes September 1st of each year and will be prospective from that date.

2. Initial Six-Month Merit Reviews

Employees listed in Sections B, C and D of Attachment I who have completed less than six (6) months of service in their Management or Non-Represented classification effective June 30th of each year will not be eligible to participate in the annual review process. At the completion of the initial six months of service in their current classification, the employees in Sections B, C and D of Attachment I will receive a performance review and merit increase appropriate to the performance review rating. The criteria and rating system for six-month reviews will be the same as those for annual performance reviews.

Following the completion of six months of service in their current classifications, the employees in Sections B, C and D of Attachment I will be eligible to participate in the annual performance review process the following July. The merit increase granted in the first annual review process following the initial six (6) month merit review will be prorated to reflect only the time period since the completion of the initial six months of service. All subsequent performance reviews will be according to the same merit schedule as other Management and Non-Represented employees.

SECTION 4. WAGE AND SALARY ADJUSTMENT

Effective the pay period that includes September 1, 2017, the salary ranges of the classifications covered by this Resolution shall be increased by two percent (2.0%).

Effective the pay period that includes July 1, 2018, the salary ranges of the classifications covered by this Resolution shall be increased by two percent (2.0%).

SECTION 5. MANAGEMENT SPECIALIST

Classifications listed in Section D of Attachment I shall be designated as "Management Specialists" pursuant to the City's Personnel Rules and Procedures.

SECTION 6. SEVERANCE

In the event of a lay-off within a designated management classification, the City Manager shall be authorized to enter into a severance agreement with the impacted employee.

SECTION 7. EMPLOYEE RESPONSIBILITIES

Since it is the City's policy to recruit highly qualified staff at a competitive total compensation level, the employees shall be responsible for striving to meet the high performance standards established by the City management.

SECTION 8.

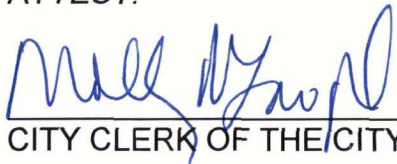
The compensation policy provided for by this Resolution shall be operative from and after 12:01 a.m. on the twelfth day of September 2017, unless otherwise stated. All previous resolutions are hereby repealed effective on the operative date of this resolution.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the 12th day of September 2017.



MAYOR OF THE CITY OF IRVINE

ATTEST:



CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA)
COUNTY OF ORANGE) SS
CITY OF IRVINE)

I, MOLLY MCLAUGHLIN, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing resolution was duly adopted at a regular meeting of the City Council of the City of Irvine, held on the 12th day of September 2017.

AYES: 5 COUNCILMEMBERS: Fox, Lalloway, Schott, Shea and Wagner

NOES: 0 COUNCILMEMBERS: None

ABSENT: 0 COUNCILMEMBERS: None

ABSTAIN: 0 COUNCILMEMBERS: None

A handwritten signature in blue ink, appearing to read "Molly McLaughlin", is written over a horizontal line.

CITY CLERK OF THE CITY OF IRVINE

Attachment I

Executive Management, Management and Non-Represented Employees (Exempt) Classification Titles

- A. City Manager
- B. Assistant City Manager
Assistant City Manager, Special Projects
City Clerk
Director of Administrative Services
Director of Community Development
Director of Community Services
Director of the Great Park
Director of Public Affairs and Communications
Director of Public Safety/Chief of Police
Director of Public Works
Director of Transportation
Deputy City Manager
Deputy Director, Administrative Services
Deputy Director, Community Services
Deputy Director, Public Works
Deputy Director, Public Safety/Police Chief
Deputy Director, Community Development
Special Assistant to the Chief of Police
- C. Chief Information Officer
Council Services Manager
Manager, Advance Planning
Manager, Animal Care
Manager, Budget & Business Planning
Manager, Building & Safety/Chief Building Official
Manager, Business Services
Manager, Community Services
Manager, Engineering/City Engineer
Manager, Facility Maintenance and Rehabilitation
Manager, Fiscal Services
Manager, Great Park Planning & Development
Manager, Housing
Manager, Human Resources
Manager, Land & Assets
Manager, Neighborhood Services
Manager, Orange County Great Park Corporation
Manager, Public Communications
Manager, Public Services
Manager, Transit and Transportation
- D. Chief Veterinarian
Animal Care Center Veterinarian

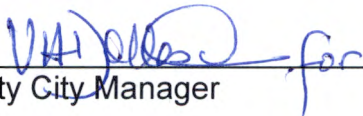
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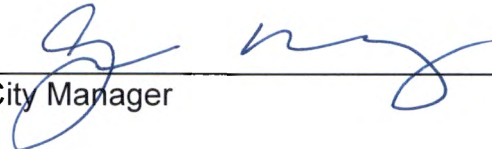


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: July 10, 2018

TITLE: HERITAGE PARK LIBRARY RENOVATION FUNDING


Deputy City Manager


City Manager

RECOMMENDED ACTION

City Council discussion and direction of Councilmember Fox's and Councilmember Schott's request to provide funding for Heritage Park Library Renovation.

EXECUTIVE SUMMARY

On June 12, at the request of Councilmembers Fox and Schott, the City Council considered designating County of Orange Irvine Library Set-Aside funds for the Heritage Park Library project (Attachment 1). The City Council voted to continue the item to receive more clarity on available funding.

According to the County of Orange Librarian, the Orange County Public Libraries (OCPL) is responsible for interior repair and maintenance of the Heritage Park (HP) Library from its operating funds. OCPL staff stated \$2 million in the OCPL FY 2018-19 budget is for HP Library air conditioning and other repairs, if required, not for a capital project to significantly rehabilitate or upgrade HP Library. Through a 2012 Set-Aside Memorandum of Understanding (MOU) (Attachment 2), Irvine has approximately \$8.4 million in set-aside funds to expand libraries/services, estimated to reach a cumulative total of \$25 million by FY 2021-22 (Attachment 3). Following City Council direction, staff is hiring a consultant in FY 2018-19 to prepare a master plan for Heritage Park improvements, including the HP Library.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not Applicable.

BACKGROUND

The Fiscal Year 2017-18 Budget included funding to prepare a Heritage Park Master Plan for a significant renovation of Heritage Park including the community center, fine arts center, and library. The Master Plan will include community engagement, concepts and

cost estimates for completion and presentation to the City Council in fall 2019. A Request for Proposal process is concluding and a consultant contract will be awarded this summer.

The memo from Councilmember Fox and Councilmember Schott requests City Council direction on using the OCPL set-aside funds for the HP Library capital improvements, with remaining funds allocated to other library projects. The estimated construction cost for the HP Library will be determined after the master plan is reviewed and approved by the City Council in fall 2019. HP Library capital costs will depend on approved size, details, finishes and furnishings.

Heritage Park Library Lease Summary (Attachment 4)

- The City owns the HP Library building that is leased to the County through 2038.
- At the end of the lease:
 - The City will own the building;
 - The County will own all personal property including the furniture, shelving, office equipment and books.
- The County is responsible for repair, maintenance, and janitorial services.
- The City is responsible for parking areas, roads, walks and landscaped areas.
- The lease is silent on capital improvement costs.

OCPL Responsibilities Summary – From Orange County Librarian Helen Fried

- OCPL responsible for interior repair and maintenance of HP Library; the City responsible for capital improvement costs on City-owned property.
- OCPL included \$2 million in its FY 2018-19 budget. This contingency funding is for the air conditioning system or other OCPL required maintenance at the HP Library, only if needed and the City does not pursue capital improvements.
- The OCPL Library Advisory Board recommended the City use its set-aside funds for significant capital renovations of the HP Library.

OCPL/Irvine Set-Aside MOU

- MOU signed in 2012 established a set-aside account for new branches/services in Irvine.
- To date, OCPL has set aside approximately \$8.4 million in a separate account.
- An estimated cumulative \$25 million will be available in 2021-2022, when the MOU expires unless mutually extended.
- The City and OCPL are to collaborate on construction of new/expanded facilities, including allocating the set-aside funds and determining operating costs.
- When the City identifies how it would like to use the funds, the County requests notification.
- The set-aside funds can be used for HP Library capital improvements.

Master Plan for Heritage Park Site Including the HP Library

- Based on City Council direction, the Community Services Department is conducting a Request for Proposal process to hire a consultant to complete a Master Plan for the Heritage Park site. A consultant contract will be awarded this summer to begin the process, including community engagement, concepts, and cost estimates.
- The Master Plan, including Heritage Park Library considerations, will be presented to the City Council upon completion, anticipated for fall 2019.
- Construction of individual components at Heritage Park would likely occur in phases, based on available funds and City Council priorities and direction.

FINANCIAL IMPACT

The Fiscal Year 2017-18 Budget included \$2,621,362 for the Heritage Park Improvement CIP Project, which includes \$500,000 for the master planning effort. The estimated costs for Heritage Park library improvements will be identified within the master plan for City Council review and direction.

Report prepared by: Michelle Grettenberg, Deputy City Manager

Attachments:

1. June 5, 2018 Memo from Councilmember Fox and Councilmember Schott
2. County of Orange/City of Irvine Memorandum of Understanding
3. Irvine Set-Aside Fund L-120 Revenues
4. Heritage Library Lease Summary

Memo

RECEIVED

JUN 05 2018

CITY OF IRVINE
CITY MANAGER'S OFFICE

To: Grace Leung, Acting City Manager

From: Melissa Fox, Councilmember

Lynn Schott, Councilmember

Date: June 5, 2018

Re: **Heritage Park Library Funding**



Please place an item on the June 12, 2018 City Council agenda seeking City Council direction on Irvine's library set-aside funds relative to the Heritage Park Library renovation, part of the larger Heritage Park Master Plan project.

The City of Irvine participates in the Orange County Public Library System (OCPL), which is operated by the County of Orange. Councilmember Fox serves as Irvine's appointee to the OCPL Advisory Board. In 2012, the City and County of Orange entered into a Memorandum of Understanding (MOU) establishing an annual set-aside of funds for Irvine branch libraries within OCPL (Attachment 1). The set aside for FY 2017-18 is \$3,082,558, resulting in a cumulative \$8.4 million set-aside since inception of the MOU. The forecasted cumulative revenue for Irvine at the conclusion of the 10-year Agreement in FY 2021-22 is estimated at \$25 million (Attachment 2). These funds have not been designated for a specific library project in the City.

Following the Heritage Community Park Master Plan Scoping Session on February 13, 2018, staff released a Request for Proposals for a consultant to develop a comprehensive master plan for Heritage Community Park, including Heritage Park Library. Heritage Park Library is located on City property and is operated and maintained by OCPL. Although in the early planning stages, it is important to identify an appropriate funding source for any proposed renovations at the Heritage Park Library.

We request the City Council designate the Irvine Set-Aside funds for the Heritage Library project, providing that any additional remaining funds be allocated to other library projects in the City.

cc: Irvine City Council
Molly McLaughlin, City Clerk

Attachments:

1. County of Orange/Irvine MOU
2. Irvine Set-Aside Revenues

ATTACHMENT 1

**MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY OF IRVINE
AND THE COUNTY OF ORANGE DESCRIBING A YEARLY APPROPRIATION
OF FUNDS TO SERVICE IRVINE BRANCH LIBRARIES WITHIN THE
ORANGE COUNTY PUBLIC LIBRARY SYSTEM**

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made and entered into this 22 day of May 2012, by and between the County of Orange, a political subdivision of the State of California, and the Orange County Public Libraries ("OCPL"), a County Free Library organized pursuant to the provisions of Education Code Sections 19100, et seq., hereinafter sometimes collectively referred to as "COUNTY," and the City of Irvine, a municipal corporation, hereinafter referred to as "CITY." From time to time COUNTY and CITY may be referred individually as "Party" or collectively as "Parties."

RECITALS

WHEREAS, OCPL Library Advisory Board ("LAB") created an Ad-Hoc Allocation Task Force that was tasked with the hiring of a consultant to study the Branch Resource Allocation Formula and related issues relative to the operation of OCPL; and

WHEREAS, The Davis Company was selected to conduct the study and their final report was issued in June 2010 (the "Davis Report" or "Report"); and

WHEREAS, the Ad-Hoc Allocation Task Force established a City Manager Subcommittee to review the Davis Report and provide recommendations based on the Report; and

WHEREAS, the City Manager Subcommittee was chaired by the City Manager from Laguna Niguel and was comprised of six city managers; and

WHEREAS, the City Manager Subcommittee recognized the contribution inequity of and the importance of a continuing relationship with the City of Irvine;

WHEREAS, the Parties recognize and agree the need to make yearly appropriations in order to remain within the confines of Article XVI, Section 18 of the California Constitution and the County Budget Act, California Government Code section 29000 et seq.; and

WHEREAS, CITY and COUNTY now desire to enter into this MOU to establish an appropriation, subject to Board of Supervisor yearly approval, to service OCPL branch libraries located in the City of Irvine.

NOW THEREFORE, in consideration of the foregoing premises and the mutual covenants and promises herein contained, the Parties hereto agree as follows:

I. CITY RESPONSIBILITIES:

- A. CITY agrees not to withdraw from OCPL system while this MOU remains in full force and effect and COUNTY has appropriated and expended monies as contemplated in Sections II.A and II.B, below.
- B. CITY agrees to collaborate with OCPL in the preparation of a library funding plan and/or services plan for any new facility constructed with (Sub)Fund [DBSA L120 - "Irvine Set Aside"] monies.
- C. CITY agrees to provide input to the COUNTY regarding the on site location and construction of any new facility constructed with (Sub) Fund [DBSA L120 - "Irvine Set Aside"] monies.

II. COUNTY RESPONSIBILITIES:

- A. COUNTY agrees to recommend, on a yearly basis, a maximum contribution of ad valorem taxes attributable to the CITY's contribution toward the OCPL system to Fund 120. Such contribution, subject to yearly approval by the COUNTY Board of Supervisors, shall be limited to the Fiscal Year 2011-2012 base year plus growth not to exceed 2%. Such contribution shall be calculated annually but shall not exceed 2% of the previous fiscal year's contribution.
- B. COUNTY agrees to appropriate, subject to yearly approval by the COUNTY Board of Supervisors, any monies in excess of the formula described in Section II.A, above, to (Sub) Fund [DBSA L120 - "Irvine Set Aside"]. (Sub) Fund [DBSA L120 - "Irvine Set Aside"] shall be used. Except that should COUNTY operational and/or maintenance costs increase as a result of the increase of new facilities constructed with DBSA L120 monies, the appropriation described in this Section II.B shall decrease proportionate to the increase in operational and/or maintenance costs expended on such new facilities.
- C. COUNTY agrees to collaborate with CITY regarding the onsite location and construction of any new facility constructed with the (Sub) Fund [DBSA L120 - "Irvine Set Aside"] monies.
- D. COUNTY agrees to collaborate with the CITY on the use of the (Sub) Fund [DBSA L120 - "Irvine Set Aside"] monies.

III. IT IS MUTUALLY AGREED that:

- A. This MOU is subject to and contingent upon applicable budgetary appropriations being approved by the COUNTY Board of Supervisors for each fiscal year during the term of this MOU. If such appropriations are not approved, it will not constitute a breach of this MOU; however, the CITY, in its sole discretion, may determine to terminate any or all of its responsibilities set forth in Section I,

above, by delivery of written notice thereof to the COUNTY. Parties agree to act in good faith toward the objectives set forth herein so long as this MOU remains in force and effect.

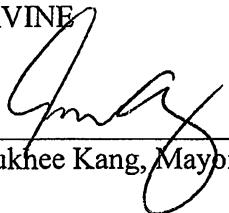
- B. This MOU shall not constitute an agreement by any Party to appropriate or expend funds in furtherance of the objectives set forth herein and each Party shall retain full budgetary control of its respective operations and expenses.
- C. This MOU is not intended as the exclusive means for any Party to pursue the objectives addressed in this MOU and any Party may take such independent actions as it may deem appropriate to accomplish the purposes stated herein.
- D. Any use of the sub fund monies not contemplated by the Ad-Hoc Allocation Task Force shall be subject to approval by the Library Advisory Board.
- E. This MOU is subject to review in the 10th year of its effect. If the MOU is not renewed at the end of the tenth year, the Parties agree that this MOU terminates further releasing the Parties of any obligations set forth herein.

--SIGNATURE PAGE TO FOLLOW--

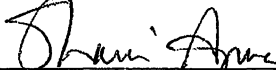
IN WITNESS WHEREOF, this Agreement has been executed as of the date first written above.

CITY OF IRVINE

By


Sukhee Kang, Mayor

ATTEST:


Sharie Apodaca, City Clerk

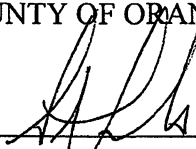
APPROVED AS TO FORM:

By


City Attorney

COUNTY OF ORANGE

By

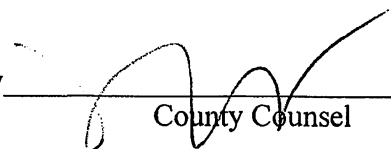

Director, OC Community Resources

By

[Title]

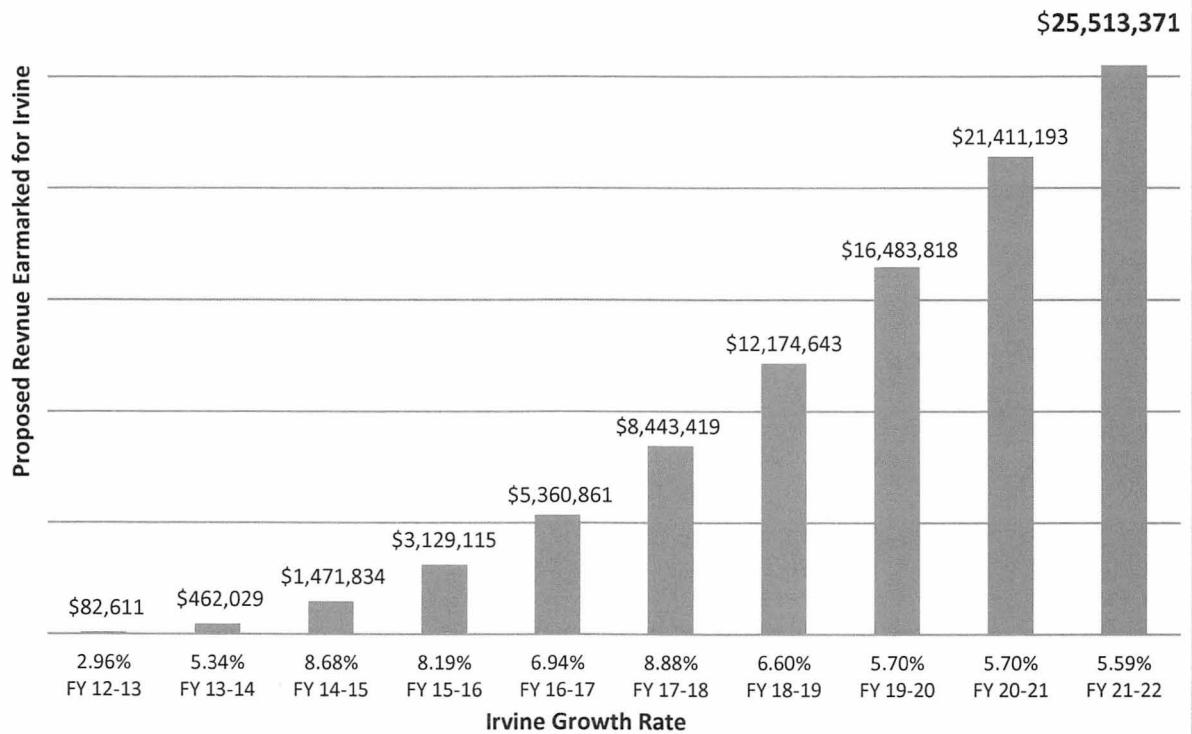
APPROVED AS TO FORM:

By


County Counsel

Orange County Public Library Irvine Revenue Retention Model

(Cumulative Estimate)



Estimated Revenue Earmarked for Irvine Over Ten Years: \$25,513,371

Summary of Heritage Park Library Lease

Heritage Park Library Lease (1981)

- City and County of Orange (County) entered into Heritage Park Library Lease Agreement.
- The City leased a construction site to the County to construct a library.
- First Amendment (1983) expanded project scope to a 20,000 SF library.
- Second Amendment (2001) expanded project to 21,000 SF (from 18,600 SF).
- County agreed to stock, staff, operate, and maintain the library building.
- County provided funding for construction of the facility.
- City constructed the building. Library opened in 1988.
- 55-year lease (expires 2038).

County Obligations

1. Provide at its own expense, all repair, maintenance, and janitorial services to the library building.
2. Before commencing any major repairs, reconstruction, or any alteration to the exterior of the library building, County shall submit to the City a set of designs, plans and specifications for such work.
3. Operation of the Library: Provide an operating staff and collection of library materials.

City Obligations

1. Park and Grounds Maintenance:
 - a. City shall provide County with the use of 100 paved parking spaces.
 - b. City shall operate and maintain all parking areas, roads, walks, and landscaped areas.

Ownership of Improvements at Expiration of Lease

- All real property improvements (without compensation to the County) become property of the City.

Obligation to Purchase

- Should the City withdraw from OCPL, City shall immediately purchase all of the County's rights, title and interest including the library building.
 - Estimated cost to purchase (as of May 2018) \$1.38 M.

4.3

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2018 JUL -3 AM 10:40

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JUL 03 2018

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Grace Leung, Acting City Manager
From: Donald P. Wagner, Mayor 
Date: July 3, 2018
Re: **Letter of Support Request - Orange County Sanitation District**

Please place the following item on the July 10, 2018 City Council agenda for discussion and action.

Orange County Sanitation District (OCSD) is seeking a letter of support from its member cities and agencies for its application for the WaterSmart Title 16 grant through the U.S. Bureau of Reclamation. OCSD and Orange County Water District (OCWD) are jointly applying for the grant, with OCSD taking the lead.

The grant funding from the U.S. Bureau of Reclamation is for the final expansion of the Groundwater Replenishment System Effluent Reuse Implementation Project - Headworks Segregation. The goal of the project is to increase the amount of water sent to the Groundwater Replenishment System at a cost of approximately \$45 million. The project will move OCSD one-step closer to its goal of recycling 100 percent of its reclaimable water.

The Groundwater Replenishment System is a water-recycling project that supplements existing water supplies by providing a new, reliable, high-quality source of water to recharge the Orange County Groundwater Basin and to protect it from seawater intrusion. When the final expansion of this project is completed, the Groundwater Replenishment System plant will produce 130 million gallons a day of water, which is enough for more than one million people.

I respectfully request the City Council authorize my sending the attached draft letter of support on behalf of the City.

Attachment:
Draft Letter of Support

cc: Irvine City Council
Molly McLaughlin, City Clerk

July xx, 2018

Irene M. Hoiby
Bureau of Reclamation
Financial Assistance Support Services
P.O. Box 25007, MS 84-27814
Denver, CO 80225

Re: U.S. Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Projects Grant Opportunity - Support for Orange County Sanitation District's Effluent Reuse Implementation Project – Headworks Segregation

Dear Ms. Hoiby:

On behalf of the _____, I am writing to show our support for the Orange County Sanitation District's (OCSD's) funding request for the United States Bureau of Reclamation (USBR) Title XVI grant as it relates to the OCSD Effluent Reuse Implementation Project – Headworks Segregation. The end goal of the project is to increase the amount of water sent to the Groundwater Replenishment System (GWRS), at a cost of about \$45 million. The project will move the Orange County Sanitation District one step closer to its goal of recycling 100 percent of its reclaimable wastewater.

The GWRS is a water recycling project jointly sponsored by OCSD and Orange County Water District (OCWD) that supplements existing water supplies by providing a new, reliable, high-quality source of water to recharge the Orange County Groundwater Basin and to protect it from seawater intrusion. The GWRS takes the treated wastewater from OCSD that otherwise would be sent to the Pacific Ocean and purifies it using a three-step advanced process consisting of microfiltration, reverse osmosis, and ultraviolet disinfection/advanced oxidation.

The OCSD Effluent Reuse Implementation Project – Headworks Segregation will allow for the development of the GWRS final expansion. The project came online in 2008 and was expanded in June 2015 to produce 100 million gallons of high-quality water per day (MGD), enough water for 850,000 residents annually. When completed, the GWRS plant will produce 130 MGD of high-quality water, which will be enough for over one million people.

We thank the Bureau for the previous support of the GWRS and we hope that USBR will consider the important contribution that this proposed project can make to alleviate future drought impacts to our region. We look forward to learning the outcome of your review of this submittal.

Please feel free to contact me with any questions you might have.

Sincerely,

Donald P. Wagner
Mayor

DRAFT

4.4

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CITY OF IRVINE
CITY CLERK'S OFFICE


2018 JUN 12 PM 4: 05

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JUN 12 2018

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Grace Leung, Acting City Manager
From: Jeffrey Lalloway, Councilmember 
cc: City Council
Date: June 12, 2018
Re: Veterans Cemetery

On June 5th, Irvine voters spoke loudly and clearly when they overwhelmingly rejected Measure B — a referendum on developer FivePoint's proposed zone change, land-swap and development plan previously approved by three members of the City Council on October 10, 2017.

In the Spring of 2017, Governor Jerry Brown, Assembly Speaker Anthony Rendon, and Assembly Member Sharon Quirk-Silva visited Irvine to express their continuing support for a Southern California Veterans Memorial Park and Cemetery, to be located in the City of Irvine. Governor Brown noted that the precise location of the Veterans Cemetery — whether on the 125-acre Great Park ARDA site or at the Bake Parkway/I-5 site — was a matter to be decided locally. According to the Governor, Speaker Rendon and Assembly Member Quirk-Silva, whatever the decision of the people of Irvine, we could count on the State's continuing support for the project, including major funding, in order to get the Veterans Cemetery built and operational quickly. Under State law, the Southern California Veterans Cemetery would then be operated and maintained in perpetuity by the State at no cost to the City of Irvine.

With the June 5th vote on Measure B, the people of Irvine have now decided: The Southern California Veterans Cemetery should be located at the originally approved Great Park ARDA site, not at the Bake Parkway/I-5 site.

The purpose of this memo is to chart a clear course and timeline for moving forward. With the submission of this memo, I am requesting and reserving ample time at the June 26th Council meeting to address the Veterans Cemetery issue as a specific agenda item.

At the June 26th meeting, I intend to introduce a motion/resolution to do the following:

First, have the City Council officially recognize the June 5th decision of Irvine voters, rejecting Measure B and thereby once again reaffirming the City Council's 2014 decision designating the Great Park ARDA site for the Southern California Veterans Cemetery.

Second, direct the Irvine City Manager and staff, in consultation with CalVet, to establish a demolition, cleanup and preliminary site preparation plan for immediate implementation at the Great Park Veterans Cemetery site, consistent with the 333-page CalVet Great Park Veterans Cemetery Concept Plan approved in 2016.

Third, direct the City Manager and staff to establish a schedule and budget for the construction of Phase I of the Great Park Veterans Cemetery, noting that "up-front" funding is available from the City's Great Park Development Fund (Fund 180) — a Fund which will eventually contain nearly \$300 million (including State Redevelopment settlement funds). To be clear, Fund 180 is separate and apart from the City's General Fund. It is expected that any up-front expenditures from the Great Park Development Fund would be largely or wholly reimbursed and augmented by State and Federal funds.

Fourth, direct the City Manager and City Attorney to reaffirm that, once built, the State of California will, by law, be responsible for the operation and maintenance of the Veterans Cemetery in the Great Park in perpetuity, at no cost to the City of Irvine.

Fifth, establish a two-member Veterans Cemetery implementation committee, (consisting of Mayor Wagner and me), to lead the effort to gain maximum cooperation and assistance from Governor Brown, CalVet and others in Sacramento, in furtherance of our goal to have Phase I of the Veterans Cemetery in the Great Park operational by Veterans Day, November 11, 2020.

I hereby request that this matter be placed on the June 26, 2018, City Council agenda as a specific item, to be taken up at a time certain — I suggest 7 p.m. — to facilitate maximum citizen participation at the Council meeting.