



AGENDA

CITY COUNCIL REGULAR MEETING

Donald P. Wagner
Mayor

Lynn Schott
Mayor Pro Tempore

Melissa Fox
Councilmember

Jeffrey Lalloway
Councilmember

Christina Shea
Councilmember

July 25, 2017

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 on a scheduled agenda item – including a Consent Calendar item, a Regular Council 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. The [Request to Speak Form](#) assists the Mayor in ensuring that all persons wishing to address the City Council are recognized. It also ensures the accurate identification of meeting participants in the City Council minutes. Your name will be called at the time the matter is heard by the City Council. 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), 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 or the City Council during the course of the meeting, so please stay alert.

CALL TO ORDER

ROLL CALL

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the City Council staff reports.



1. CLOSED SESSION

- 1.1 CONFERENCE WITH LABOR NEGOTIATORS (Pursuant to Government Code Section 54957.6) Agency Negotiators: Sean Joyce, City Manager; Grace Leung, Assistant City Manager; Michelle Grettenberg, Deputy City Manager; Jimmee Medina, Deputy Director of Administrative Services; Brian King, Manager of Human Resources; Peter Brown, Liebert, Cassidy, Whitmore; Employee Organizations: Associated Supervisory/Administrative Personnel (ASAP); Irvine City Employees Association (ICEA); Irvine Professional Employees Association (IPEA); Irvine Police Association (IPA); Irvine Police Management Association (IPMA); Management and Non-Represented Employees; Confidential Employees; and Part-Time Employees**

RECONVENE TO THE CITY COUNCIL MEETING

PLEDGE OF ALLEGIANCE

INVOCATION

CITY MANAGER'S REPORT

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Announcements, Committee Reports and Council 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.

2. CONSENT CALENDAR

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 July 11, 2017.

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 BUDGET ADJUSTMENT FOR ENHANCEMENTS TO SPORTS PARK SUBAREA OF THE ORANGE COUNTY GREAT PARK

ACTION:

- 1) Authorize the City Manager to execute Amendment No. 3 to Letter Agreement regarding Sports Park design enhancements.
- 2) Approve a budget appropriation of \$71,000 from the unallocated Great Park Fund balance to the Capital Improvement Project Fund, Project No. 361616, Sports Park Subarea Improvements, for the recommended Sports Park design enhancements.

(Unless otherwise directed by a member of the City Council, the vote on this matter will reflect the prior action of each Councilmember when he or she sat and voted as a member of the Board of Directors of the Orange County Great Park Corporation. However, if a Councilmember is not present at the City Council meeting, his or her vote will be reflected as absent.)

2.4 AWARD OF CONTRACT FOR WIRELESS MARKETING AND MANAGEMENT SERVICES AT THE ORANGE COUNTY GREAT PARK

ACTION:

- 1) Authorize the Orange County Great Park Director to execute a contract with 5 BARS Communities, LLC for wireless marketing and management services and subsequent sublicenses at the Orange County Great Park.
- 2) Approve a budget adjustment to appropriate \$85,000 in the Orange County Great Park Fund for a wireless infrastructure master plan funded from future lease revenue.

(Unless otherwise directed by a member of the City Council, the vote on this matter will reflect the prior action of each Councilmember when he or she sat and voted as a member of the Board of Directors of the Orange County Great Park Corporation. However, if a Councilmember is not present at the City Council meeting, his or her vote will be reflected as absent.)

2.5 AWARD OF CONTRACT FOR WIRELESS MARKETING AND MANAGEMENT SERVICES

ACTION:

- 1) Approve and authorize the City Manager to execute a contract with 5 BARS Communities, LLC for wireless marketing and management services and subsequent sublicenses.
- 2) Approve a budget adjustment to appropriate \$150,000 in the General Fund for a wireless infrastructure master plan funded from future lease revenue.

2.6 CONSIDERATION OF A POLICY FOR POSTING DEPOSITION TRANSCRIPTS ON THE CITY WEBSITE

ACTION:

Adopt the policy related to the timing of posting deposition transcripts on the City's website, consistent with California Code of Civil Procedure section 2025.520.

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

ACTION:

- 1) Approve specifications and contract documents for the Annual Street Rehabilitation and Slurry Seal Capital Improvement Projects 311801, 361807, and 341701.
- 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 district facilities within the project limits.
- 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 financial policies and purchasing procedures.

2.8 NOTICE OF REVIEW AND PENDING APPROVAL FOR TRACT MAPS IN IRVINE BUSINESS COMPLEX AND EASTWOOD

ACTION:

Receive and file.

2.9 KELVIN AVENUE PEDESTRIAN BRIDGE**ACTION:**

- 1) Adopt – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, CERTIFYING THE ADDENDUM TO THE IBC VISION PLAN AND MIXED USE OVERLAY ZONING CODE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT (SCH NO. 2007011024) FOR THE KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT
- 2) Authorize the Director of Community Development to execute Amendment No. 2 to the Kelvin Apartments Conditional Use Permit Letter Agreement.

3. PUBLIC HEARINGS

Public Hearings are scheduled for a time certain of 4:00 p.m., unless noticed otherwise, or as soon thereafter as possible. Those wishing to address the City Council during the Public Hearing are requested to complete a form and provide it to the City Clerk prior to the hearing.
Notice: Public Hearings listed for continuance will be continued as noted and posting of this agenda serves as notice of continuation. Any matter not noted for continuance, will be posted separately.

3.1 IRVINE BUSINESS COMPLEX TRANSPORTATION MITIGATION FEE PROGRAM UPDATE**ACTION:**

- 1) Open the public hearing.
- 2) Continue the public hearing to September 12, 2017.

3.2 CITY COUNCIL OVERRIDE OF INCONSISTENCY DETERMINATION BY THE AIRPORT LAND USE COMMISSION OF ORANGE COUNTY**ACTION:**

- 1) Receive staff report.
- 2) Reopen the public hearing, receive public input.
- 3) Close the public hearing.
- 4) City Council comments and questions.
- 5) Adopt – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING FINDINGS TO OVERRIDE THE AIRPORT LAND USE COMMISSION FOR ORANGE COUNTY INCONSISTENCY DETERMINATION FOR THE LANDMARK PROJECT LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX); FILED BY GREAT FAR EAST, LLC

4. COUNCIL BUSINESS

4.1 CONSIDERATION OF COUNCILMEMBER SHEA'S REQUEST FOR ANIMAL CARE CENTER REDESIGN UPDATE

ACTION:

City Council discussion and direction.

PUBLIC COMMENTS - 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

NOTICE TO THE PUBLIC

LIVE BROADCASTING AND REBROADCASTING

Regular City Council 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 meeting), Sundays at 11 a.m., Wednesdays at 7 p.m., and Thursdays at 10 a.m. until the next City Council 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 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 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 meeting). Staff reports can also be downloaded from the City's website at cityofirvine.org beginning the Friday prior to the scheduled City Council 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 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. 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 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

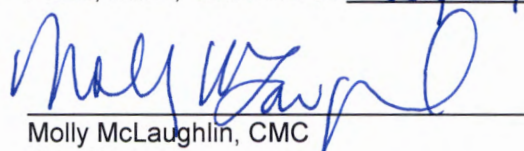
To minimize distractions, please be sure all personal communication and electronic devices are turned off or on silent mode.

MEETING SCHEDULE

Regular meetings of the City Council 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 meeting was posted in accordance with law 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 20, 2017 by 8 p.m. as well as on the City's web page.


Molly McLaughlin, CMC
City Clerk

CLOSED SESSION

1.1

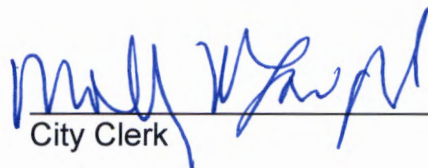
2.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: MINUTES



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 July 11, 2017.



MINUTES

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

July 11, 2017
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 4:03 p.m. on July 11, 2017 in the City Council Chamber, Irvine Civic Center, One Civic Center Plaza, Irvine, California; Mayor/Chairman Wagner presiding.

ROLL CALL

Present:	5	Councilmember/Boardmember:	Melissa Fox
		Councilmember/Boardmember:	Jeffrey Lalloway
		Councilmember/Boardmember:	Christina Shea
		Mayor Pro Tempore/Vice Chairwoman:	Lynn Schott
		Mayor/Chairman:	Donald P. Wagner

1. CLOSED SESSION

City Attorney Melching announced the following Closed Session item:

- 1.1 CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION:**
Initiation of litigation pursuant to paragraph (4) of subdivision (d) of
Section 54956.9: 1 potential case

RECESS

Mayor/Chairman Wagner convened the regular joint meeting with the Successor Agency to Closed Session at 4:04 p.m.

RECONVENE TO THE REGULAR JOINT MEETING

Mayor/Chairman Wagner reconvened the regular joint meeting with the Successor Agency at 4:33 p.m. City Attorney Melching, on behalf of the City Council and Successor Agency, announced that no reportable action was taken in Closed Session.

ADJOURNMENT - REGULAR JOINT MEETING

Moved by Councilmember/Boardmember Shea, seconded by Councilmember/Boardmember Lalloway, and unanimously carried to adjourn the regular joint meeting with the City of Irvine as Successor Agency to the dissolved Irvine Redevelopment Agency at 4:34 p.m.

RECONVENE TO THE REGULAR CITY COUNCIL MEETING

Mayor Wagner reconvened the regular City Council meeting at 4:35 p.m.

PLEDGE OF ALLEGIANCE

Councilmember Shea led the Pledge of Allegiance.

INVOCATION

Mayor Wagner provided the invocation.

CITY MANAGER'S REPORT

There was no report.

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Mayor Pro Tempore Schott, as the City's representative to the Orange County Mosquito and Vector Control District Board of Directors (OCMVCD), announced that a 70-year-old woman from Laguna Beach recently tested positive for West Nile Virus; and that OCMVCD confirmed that the first mosquito sample to test positive for West Nile Virus in Orange County was found in the City of La Habra. Residents are reminded to take

preventative measures, such as removing standing water, keeping screen doors closed, reporting dead or dying birds, and wearing appropriate repellent while outdoors. For more information, visit ocvector.org.

Mayor Wagner noted his recent attendance at meetings in Washington, D.C. the week of June 30 to facilitate potential new job opportunities in the City of Irvine in coordination with the University of California, Irvine, having met with Congresswoman Lucille Roybal-Allard, ranking member of the House Appropriations Committees; Congressmen Lou Correa and Ed Royce; and representatives of Congresswoman Mimi Walters and Senator Diane Feinstein. He also noted that he was joined on the trip by former State Senators Dunn and Ackerman, as well as representatives from the Orange County Business Council and the Irvine Company.

Mayor Wagner also made the following announcements:

- The community is invited to learn about two Public Works projects and to share their input at upcoming public meetings.
 - The first meeting will be held on Wednesday, July 12 at 6 p.m. at Cypress Community Center to learn about the extension of the Jeffrey Open Space Trail along the east side of Jeffrey Road, between Barranca Parkway and Walnut Avenue. For information about the project and how to submit comments, visit cityofirvine.org/jostextension.
 - The second meeting will be held on Thursday, July 20 at 6:30 p.m. at Free Chapel Orange County, located at 2777 McGaw Avenue, to learn about the Jamboree Road Widening Project from Main Street to Barranca Parkway. For information about the project and how to submit comments, visit cityofirvine.org/jamboree.
- The community is invited to the Grand Opening of the first phase of the Orange County Great Park Sports Park from 2-9 p.m. on Saturday, August 5, with the official ribbon-cutting ceremony at 2 p.m. A special free concert will also take place at 7 p.m. in the Soccer Stadium. For information, visit cityofirvine.org.
- The City's Sizzlin' Summer Concerts continue at Mike Ward Community Park – Woodbridge on Sunday, July 16 at 5:30 p.m. with an energetic performance of pop songs by the band Pop Vinyl. Gourmet food trucks will be available, with a portion of proceeds from food sales benefitting Irvine nonprofit organizations. Concerts will be held every Sunday evening through August 13. For information, visit cityofirvine.org/play.

ADDITIONS AND DELETIONS

Grace Leung, Assistant City Manager, requested that Item No. 4.2 (Zoning Administrator Appointment Procedure) be continued to a date to be determined to provide staff an opportunity to explore additional options.

2. CONSENT CALENDAR

ACTION: Moved by Councilmember Shea, seconded by Councilmember Fox, and unanimously carried to approve Consent Calendar Item Nos. 2.1 through 2.3.

2.1 MINUTES

ACTION:

Approved the minutes of a regular meeting of the City Council held on June 27, 2017.

2.2 WARRANT AND WIRE TRANSFER RESOLUTION

ACTION:

Adopted RESOLUTION NO. 17-49 - 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 COMMUNITY PARTNERSHIP FUND GRANT NOMINATIONS

ACTION:

- 1) Approved Councilmember Shea's request for Community Partnership Fund Grant nominations to Irvine Korean Evergreen Association in the amount of \$1,000 and New Outlook Center in the amount of \$700 both in support of program costs.
- 2) Authorized the City Manager to prepare and sign the funding agreements listed in Action 1.

3. PUBLIC HEARINGS

3.1 CITY COUNCIL OVERRIDE OF INCONSISTENCY DETERMINATION BY THE AIRPORT LAND USE COMMISSION OF ORANGE COUNTY

Stephanie Frady, Senior Planner, and Tim Gehrich, Deputy Director of Community Development, presented the staff report and responded to questions.

Mayor Wagner opened the public hearing at 4:43 p.m.

Michael Bishoff, representing PEI Cobb Architects, and Tim Strader Jr., representing Starpointe Ventures, spoke in support of the City Council's override of the Airport Land Use Commission's (ALUC) determination and responded to City Council questions.

Kari Rigoni, representing ALUC, spoke in opposition, noting ALUC's concerns associated with the project.

City Council discussion included: whether the proposed project had higher buildings than the surrounding neighborhood; questioned ALUC's consistency in final determinations of other projects based on FAA findings; inquired about how the ALUC was formed and who provided oversight; questioned why the developer declined to redesign the project; inquired about the financial impacts to the City if the project was reduced in size; referenced the reduction in trips for this type of lower intensity use project; expressed concern about potential liability to the City; reiterated the need for additional hotels; complemented the mixed use approach to the project; noted the importance of the ALUC's role and its high standards with respect to aviation safety; referenced correspondence from the Department of Transportation and its findings; questioned why ALUC was in opposition to the proposed project as presented; noted the disagreement of findings between the State and the FAA; requested the need for additional time to make appropriate determinations; questioned common practical modifications; expressed concern that specific findings must be made by the City Council to determine that the proposed override was consistent with the purposes stated in the Public Utilities Code; questioned specific modifications to the project that addressed obstruction issues; and inquired about court decisions on similar cases.

Barbara Lichman, legal counsel on behalf of the applicant (Great Far East, LLC), responded to questions regarding the FAA's findings and why it determined that the project was deemed an "obstruction" rather than a "hazard".

Jeff Melching, City Attorney, responded to questions regarding potential liability to the City, indemnification obligations by the developer, and available options to reduce liability exposure in the future.

ACTION: By consensus, Mayor Wagner closed the public hearing at 6:03 p.m.

ACTION: Moved by Mayor Pro Tempore Schott, seconded by Councilmember Lalloway, and unanimously carried to:

Continue the item to the July 25, 2017 City Council meeting.

4. COUNCIL BUSINESS

4.1 KELVIN AVENUE PEDESTRIAN BRIDGE

Scott Smith, Deputy Director of Public Works, and Jim Houlihan, Manager of Engineering/City Engineer, presented the staff report and responded to questions.

City Council discussion included: whether deferment of the project impacted future needs; noted that postponement would incur a higher cost based on future inflation; inquired about the comments and recommendations made by the Irvine Residents with Disabilities Advisory Board (IRDAB); questioned if the landowner was still in favor of the bridge and why it was recommended that the project be deferred; why the project was presented to the Planning Commission; questioned the prior City Council's rationale for approving the bridge; and noted the increased need for walkability and pedestrian access in the Irvine Business Complex (IBC).

ACTION: Moved by Mayor Pro Tempore Schott, seconded by Councilmember Lalloway, to:

Direct staff to continue work on the project, and bring back an extension to the developer contribution agreement and a resolution to certify the Environmental Impact Report (EIR) addendum for City Council consideration.

The motion carried as follows:

AYES: 4 COUNCILMEMBERS: Fox, Lalloway, Schott and Shea

NOES: 1 COUNCILMEMBERS: Wagner

ABSENT: 0 COUNCILMEMBERS: None

4.2 ZONING ADMINISTRATOR APPOINTMENT PROCEDURE

This item was removed from the agenda at the request of Assistant City Manager Leung. See Additions and Deletions.

PUBLIC COMMENT

Del Self, Irvine resident, expressed concern about traffic safety on Ridgeline in Turtle Rock.

The following individuals spoke in opposition to the proposed Southern California Safari Substation on Wald Street and expressed appreciation to the City Council, Southern California Edison and the Irvine Company for exploring options for an alternative site:

Jane Klassen
Doug Bender
Daniel Kim

Ilya and Robert Tseglin reiterated a domestic issue related to an autistic family member.

Michael Klubniken spoke on behalf of his friend, Ilya Tseglin, and issues related to his autistic son.

ADJOURNMENT – CITY COUNCIL

Moved by Councilmember Lalloway, seconded by Shea, and unanimously carried to adjourn the regular City Council meeting at 6:49 p.m.

MAYOR OF THE CITY OF IRVINE

CITY CLERK OF THE CITY OF IRVINE

July 25, 2017

2.2



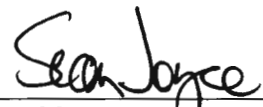
REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

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 July 4, 2017 through July 18, 2017 in accordance with Section 2-7-211 of the Irvine Municipal Code.

ATTACHMENT Warrant and Wire Transfer Resolution

CITY COUNCIL RESOLUTION NO. 17-____

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 25th day of July 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 25th day of July 2017.

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

CITY CLERK OF THE CITY OF IRVINE

7/4/2017 through 7/11/2017

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	980,363.58
004	PAYROLL CLEARING FUND	41,647.43
005	DEVELOPMENT SERVICES FUND	117,657.00
009	REVENUE CLEARING FUND	16,160.90
027	DEVELOPMENT ENGINEERING FUND	25,700.00
119	LIGHTING, LANDSCAPE & PARK MNT	253,294.77
125	COMM DEVELOP BLOCK GRANT FUND	1,748.75
126	SENIOR SERVICES FUND	2,111.00
128	OFFICE ON AGING PROGRAMS FUND	4,067.86
143	PUBLIC SAFETY GRANTS	29,504.21
155	COMMUNITY SERVICES PROGRAMS	1,292.00
180	ORANGE COUNTY GREAT PARK	113,127.48
204	CFD 2013-3 GREAT PARK	5,018.70
250	CAPITAL IMPROV PROJ FUND - CIR	39,100.00
271	IRVINE BUSINESS COMPLEX	23,115.83
286	GREAT PARK DEVELOPMENT FUND	11,866.00
501	INVENTORY	23,615.31
570	INSURANCE FUND	1,536,428.33
574	FLEET SERVICES FUND	22,597.65
578	MAIL INTERNAL SERVICES	30,643.05
579	STRATEGIC TECHNOLOGY PLAN FUND	7,100.00
580	CIVIC CTR MAINT & OPERATIONS	80,053.26
715	AD 13-25 FIXED RATE	12,535.00
716	RAD 13-1 FIXED RATE	1,484.00
717	RAD 04-20 PORTOLA SPR VAR RT A	8,765.00
730	11-24 FIXED RT CYPRESS VILLAGE	13,970.00
	GRAND TOTAL	3,402,967.11

7/12/2017 through 7/18/2017

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	960,216.68
004	PAYROLL CLEARING FUND	1,017,299.34
005	DEVELOPMENT SERVICES FUND	64,281.50
007	SCHOOL SUPPORT FUND	1,334,175.00
009	REVENUE CLEARING FUND	3,100.00
024	BUILDING & SAFETY FUND	341,563.82
027	DEVELOPMENT ENGINEERING FUND	4,697.75
111	GAS TAX FUND	256,300.62
113	FEES & EXACTIONS FUND	8,609.13
114	HOME GRANT	130.00
119	LIGHTING, LANDSCAPE & PARK MNT	369,838.98
125	COMM DEVELOP BLOCK GRANT FUND	1,794.01
126	SENIOR SERVICES FUND	11.07
128	OFFICE ON AGING PROGRAMS FUND	13,667.95
139	SUPPL LAW ENFORCEMENT SERVICES	8,912.76
143	PUBLIC SAFETY GRANTS	341.52
149	SPECIAL PROGRAM GRANTS	25,306.25
180	ORANGE COUNTY GREAT PARK	129,265.34
250	CAPITAL IMPROV PROJ FUND - CIR	27,399.41
260	CAPITAL IMPROV PROJ-NON CIRC	7,284.99
270	NORTH IRVINE TRANSP MITIGATION	23,723.00
271	IRVINE BUSINESS COMPLEX	1,432.00
570	INSURANCE FUND	67,812.84
574	FLEET SERVICES FUND	20,143.65
578	MAIL INTERNAL SERVICES	59,847.60
579	STRATEGIC TECHNOLOGY PLAN FUND	70,093.31
714	REASSESSMENT 12-I FIXED RATE	1,499.49
716	RAD 13-1 FIXED RATE	30.98
721	AD00-18 SHADY CNYN&TURLT ROCK	3,731.84
723	AD03-19 WOODBURY SER B VAR RT	4,530.75
730	11-24 FIXED RT CYPRESS VILLAGE	30.98
735	AD03-19 WOODBURY SER A VAR RT	3,949.35
746	CFD 2004-I CENTRAL PARK	2,968.00
760	AD87-8 ICD/BAKE PKWY DEBT SVC	4,839.80
767	AD94-15 WESTPARK II SERIES A	593.57
771	AD97-16 NORTHWEST IRVINE VARI	7,019.81
774	AD94-13 VARIABLE RT-OAKCREEK	5,237.31
775	AD97-17 LOWER PETERS CYN EAST	11,913.18
776	AD93-14 SPECT 6N/SPECT 7	2,000.00
777	RAD 05-21 G1 FIXED RATE	61.96

7/12/2017 through 7/18/2017

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
	GRAND TOTAL	4,865,655.54

2.3




REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: BUDGET ADJUSTMENT FOR ENHANCEMENTS TO SPORTS PARK SUBAREA OF THE ORANGE COUNTY GREAT PARK


Director, Orange County Great Park


City Manager

RECOMMENDED ACTION

1. Authorize the City Manager to execute Amendment No. 3 to Letter Agreement regarding Sports Park design enhancements.
2. Approve a budget appropriation of \$71,000 from the unallocated Great Park Fund balance to the Capital Improvement Project Fund, Project No. 361616, Sports Park Subarea Improvements, for the recommended Sports Park design enhancements.

EXECUTIVE SUMMARY

On September 8, 2015, the City Council approved the use of \$4,686,314 for design and construction enhancements within the Sports Park. On August 9, 2016, the City Council approved a Letter Agreement with Heritage Fields specifying the terms and procedures governing the payment for those Sports Park enhancements. The letter authorized an escrow account through which Heritage Fields has drawn funds for construction of the approved enhancements. The Letter Agreement has been amended at City Council direction to accommodate additional design enhancements identified during design and construction. These enhancements can be implemented with less disruption and at lower cost during construction than if they were to be undertaken by the City after construction is completed. The Letter Agreement is included as Attachment 1.

As Sports Park construction has progressed, City staff has worked closely with Five Point Communities' (Five Point), Development Manager for Heritage Fields El Toro, LLC., (Heritage Fields) to finalize design and identify opportunities for enhancements that will lead to improved operations and visitor experience. The most recent round of recommended enhancements includes additional park storage at electrical utility yards and extension of required cabling in the information technology (IT) rooms within the buildings in Sports Park Phase 1.

Staff recommends a budget modification appropriating \$71,000 from the unallocated Great Park Fund balance to pay for the enhancements as well as approval of Amendment No. 3

to the Letter Agreement with Heritage Fields governing the payment for Sports Park design enhancements. The amendment will allow Heritage Fields to draw on the established escrow account to pay for materials and installation, subject to required documentation and City review. Amendment No. 3 is included as Attachment 2.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

On November 26, 2013, the City Council approved the Second Agreement with City of Irvine as Adjacent Landowner (ALA II) between the City of Irvine and Heritage Fields El Toro, LLC. (Heritage Fields). The ALA II set forth the concept plans and programming for the development of 688 acres within the Orange County Great Park. The ALA II further subdivided the 688-acre Great Park Improvement Area into a number of subareas, one of which is the Sports Park. Construction of Phase 1 of the Sports Park is underway and includes a 2,500-seat soccer stadium, six soccer fields, six volleyball courts, 25 tennis courts and associated support buildings.

On September 8, 2015, the City Council approved \$4,686,314 in Quimby Funds for selected design enhancements within the Sports Park. The Quimby Fund appropriation was necessary as the cost of the City Council-directed enhancements exceeded the Additional Allowance Fund, a set-aside designated in the ALA II for City-selected improvements beyond the basic scope of work.

As construction commenced on the Sports Park in 2016, it became necessary to create a process through which Heritage Fields could draw upon the approved funds to order materials and pay for construction associated with the enhancements. On August 9, 2016, the City Council approved a Letter Agreement with Heritage Fields specifying the terms and procedures governing the payment for the enhancements previously approved by the City Council. The letter authorized an escrow account through which Heritage Fields has drawn funds for construction of the designated enhancements. The letter includes control provisions regarding required City review of costs and the request for release of funds.

As planning and construction have progressed at the Sports Park, additional design enhancements that improve park operations and enhance the visitor experience have been identified by City staff and the design team from Five Point. By implementing these enhancements now, during construction, rather than after completion, disruptions will be limited and costs will be reduced.

The cost of the proposed enhancements is \$71,000 as summarized below.

- Additional storage room in three utility enclosures in Phases 2, 3, and 4: \$21,000. There are five utility enclosures within the Sports Park. The utility enclosures have extra space that can be adapted to create storage areas through the construction of a dividing block wall and an access door. The enclosures can be used for much

needed recreational equipment and landscape material storage. The structures are located near each of the sports fields: soccer; tennis; softball; and, baseball. The Board and City Council previously approved the addition of two similar storage areas located within Phase 1. The additional three storage rooms are located in Phases 2, 3, and 4. The total additional cost is \$21,000.

- Redesigned and Enhanced IT Rooms in Phase 1 Buildings: \$50,000. The design for the IT equipment spaces in the Sports Park buildings includes a room accessible to wireless carriers and a secure room behind a separately-keyed second door. The proposed expenditure provides for the extension of communications cabling and reconfiguration of racks so that the City's network connectivity and security systems can be relocated into the secured room. In addition, the enhancements will maximize the space use in the room and support additional equipment. These changes have been made to the design for Phases 2, 3 and 4 so there will not be any subsequent cost. The expenditure is necessary for Phase 1 because the buildings have already been constructed and the initial cabling is complete.

The costs outlined above were provided by Five Point and were reviewed by the City's consultant, DMC Engineering for conformance with market pricing and industry standards. The recommended enhancements are beyond the base design obligations required of Heritage Fields for the Sports Park, per the ALA II. As such, these additional costs, totaling \$71,000, are the responsibility of the City. Staff is recommending a budget modification, appropriating funds from the unallocated Great Park Fund balance in order to pay for these design enhancements.

Staff is recommending that these funds, once appropriated, be made available to Five Point for draw down during construction by way of the escrow account approved by the City Council on August 9, 2016. The Letter Agreement between the City and Heritage Fields approved at that time authorized the account and specified the terms and procedures governing the payment for Sports Park design enhancements out of the account. Amendment No. 3 to that Letter Agreement modifies the agreement to include the recommended enhancements described in this report. All other provisions in the Letter Agreement remain unchanged, including Heritage Fields' obligation to provide written release requests supported by executed contracts and invoices for all expenditures.

ALTERNATIVES CONSIDERED

The Board could decide not to recommend authorization of the Sports Park design enhancements or make modifications thereto. Further, the Board could choose to recommend that the enhancements be deferred until such time as the Sports Park is completed and turned over to the City, allowing the City to make the enhancements after completion rather than Five Point implementing the enhancements during construction. The Board could also recommend an alternative source of funds.

FINANCIAL IMPACT

The cost for the staff recommended design enhancements for the Sports Park is \$71,000. Unless otherwise directed, these funds are to be drawn from the unallocated Great Park Fund balance. The available balance within this account is approximately \$50 million.

REPORT PREPARED BY Debby Platt, Great Park Real Property Administrator

ATTACHMENTS

1. Letter Agreement dated August 4, 2016 regarding Sports Park design enhancements
2. Amendment No. 3 to August 4, 2016 Letter Agreement between the City of Irvine and Heritage Fields El Toro, LLC regarding Sports Park design enhancements

Heritage Fields El Toro, LLC

August 4, 2016

City of Irvine
City Hall
One Civic Center Plaza
Irvine, California 92623-9575
Attention: Eric Tolles, Assistant City Manager–Great Park

Re: Second Agreement with City of Irvine as Adjacent Landowner, dated November 26, 2013 (“**ALA2**”), by and between HERITAGE FIELDS EL TORO, LLC, a Delaware limited liability company (“**Heritage Fields**”), and THE CITY OF IRVINE, a California charter city (the “**City**”)

Dear Mr. Tolles:

Reference is hereby made to the ALA2; capitalized terms not defined in this letter agreement (“**Letter Agreement**”) shall have the meaning ascribed to such terms in the ALA2, unless otherwise indicated.

On July 28, 2015, the Orange County Great Park Board approved the plans for the 175-acre Sports Park Subarea and recommended allocating the entire Additional Allowance Fund for this particular Subarea in the amount of \$5,040,000 to enhancements to be incorporated into the Sports Park Subarea. On September 8, 2015, the City Council took several actions, including appropriating funds in the amount of \$4,686,314.00 from available City Quimby funds to pay for additional enhancements to the Sports Park (the “**Quimby Allowance**”), and approving the list of specific enhancements to be financed by the Quimby Allowance, including an additional restroom facility, additional shade structure, entry gates, fencing, upgraded scoreboards and backstops, and other items, all as more particularly detailed on Exhibit A attached to this Letter Agreement (the “**Quimby Improvements**”). Given the integrated nature of the Quimby Improvements with the Sports Park Subarea improvements being designed and constructed by Heritage Fields, the City desires to have Heritage Fields design and construct the Quimby Improvements as part of its overall work on the Sports Park Subarea, subject to the City’s obligation to fund such design and construction.

While Heritage Fields has no obligation to design, construct or otherwise install the Quimby Improvements (also referred to as the “**Additional Sports Park Work**”), in order to allow for the efficient completion of the Additional Sports Park Work, Heritage Fields and the City agree to follow the procedures set forth in this Letter Agreement with respect to completion of the Additional Sports Park Work.

1. **Appointing Representatives** – For purposes of implementing the Additional Sports Park Work, Heritage Fields hereby appoints LJ Edgcomb (the “**Heritage Fields Representative**”), and the City appoints Eric Tolles (the “**City Representative**,” and together with the Heritage Fields Representative, each a “**Representative**”), each to be the point of contact for his respective Party. Either Party may change that Party’s representative by written notice to the other Party.
2. **Improvements to be Incorporated into the Great Park Improvements** – Subject to the City’s satisfaction of the terms and conditions specified in this Letter Agreement, including without limitation the obligation to pay Heritage Fields for all the fees, costs (including design costs) and expenses of the Additional Sports Park Work, Heritage Fields shall design and cause the construction of the Additional Sports Park Work as part of the Great Park Improvements. The provisions of the ALA2 applicable to Heritage Fields’ construction of the Great Park Improvements shall also apply to the Additional Sports Park Work, provided that, in all cases the cost of the Additional Sports Park Work shall be paid to Heritage Fields by the City in accordance with this Letter Agreement. The City acknowledges and agrees that the Additional Sports Park Work may

be built in phases, and that disbursements from the Escrow Agent (defined below) may be requested in accordance with the terms of this Letter Agreement in order to fund such phased construction of the Additional Sports Park Work. The Additional Sports Park Work shall be performed concurrently with the corresponding phases of Sports Park Subarea improvements being designed and constructed by Heritage Fields.

3. **Finalization of the Improvement Plans / Responsibility for Cost Overruns** – Heritage Fields has caused design drawings and plans to be prepared and has obtained bids for the Additional Sports Park Work. The Quimby Allowance is based on those bids and Heritage Fields' estimate of the cost of the Quimby Improvements at the time the Quimby Allowance was approved by the City Council. However, the Parties recognize that the plans and specifications for the Quimby Improvements have not yet been approved by the City, and may not reflect the final design, construction, soft costs and other costs associated with construction of the Quimby Improvements.

- a. **Design** - Heritage Fields will cause engineers, architects and other consultants to prepare plans and specifications for the Additional Sports Park Work to be reviewed by the City pursuant to its normal regulatory process. Such plans and specifications shall indicate the scope and parameters of the Additional Sports Park Work separate and apart from the remainder of the Great Park Improvements.

- b. **City Changes** - If there are any changes to the scope or design of the Additional Sports Park Work resulting from the plan check or other regulatory review or inspection process, such changes shall be subject to Heritage Fields' review and approval. Notwithstanding Section 2(c) of the ALA2, or anything else to the contrary, to the extent any changes to the Additional Sports Park Work are required by the City during the plan check process, or at any time prior to the acceptance of the Additional Sports Park Work by the City, such changes shall be undertaken by Heritage Fields at the sole cost and expense of the City, and if necessary the City shall allocate additional funding for the Quimby Allowance (in the case of the Quimby Improvements) to cover such additional costs. Upon imposition of a change or additional requirement by the City (whether through the regulatory review process or otherwise), Heritage Fields shall deliver written notice to the City which notice shall set forth in reasonable detail the estimated additional costs of such change or requirement and the City shall allocate additional funding for the Additional Sports Park Work to cover such additional costs. If the City Representative does not commit in writing to fund such change or additional requirement within ten (10) business days after receipt of the notice, Heritage Fields shall have no obligation to implement such requested change or additional requirement, provided that if such change or additional requirement is required to conform to a mandated code change, Uniform Construction Codes or a building or construction requirement pursuant to state or federal law, and the City does not commit in writing to fund such change or additional requirement within ten (10) business days of receipt of the notice, then Heritage Fields shall not proceed with the Additional Sports Park Work impacted by such change.

- c. **Cost Increases** - To the extent the price of the Additional Sports Park Work, as reflected in the final bids for such contracts or in any change order with respect to such contracts, exceeds the Quimby Allowance, Heritage Fields shall deliver written notice to the City which notice shall set forth in reasonable detail the estimated additional costs to complete the applicable Additional Sports Park Work and the City shall allocate additional funding for the Quimby Allowance to cover such additional costs. Cost savings with respect to the Quimby Improvements may be used to off-set any increase in costs. If additional funds as required to fully fund the applicable Additional Sports Park Work are not allocated by the City within forty-five (45) calendar days after receipt of written notice from Heritage Fields to the City of such increased costs, then Heritage Fields shall not proceed with the applicable Additional Sports Park Work impacted by such additional costs.

4. **City Payment for Additional Sports Park Work** – City is responsible to pay for all the fees, costs and expenses of the Additional Sports Park Work, including (without limitation) design, permitting,

construction, inspection and any other costs incurred by Heritage Fields prior to acceptance of the Additional Sports Park Work by the City (the “**Additional Work Project Costs**”). The City agrees to pay for the Additional Work Project Costs as follows:

a. **Initial Quimby Budget; Quimby Improvements Account** – Heritage Fields currently estimates the Quimby Improvements will total approximately Four Million, Five Hundred Seventy-One Thousand, Three Hundred Thirty-Six Dollars (\$4,571,336) (the “**Initial Quimby Budget**”), which excludes permit fees. The City and Heritage Fields shall enter into separate written escrow instructions with the Irvine, California, office of First American Title Insurance Company (the “**Escrow Agent**”), and cause Escrow Agent to establish and maintain an interest bearing escrow account, denominated the “**Quimby Improvements Account**” at a banking institution mutually acceptable to the City and Heritage Fields in the Parties’ reasonable discretion. The purpose of the Quimby Improvements Account is to administer the distribution of funds from the account to Heritage Fields to pay for the Additional Work Project Costs attributable to the Quimby Improvements. Interest or investment earnings on funds deposited in the Quimby Improvements Account shall be deposited into, and become a part of, the Quimby Improvements Account. All fees, costs and expenses of the Escrow Agent with respect to the Quimby Improvements Account established pursuant to this Letter Agreement shall be paid for by the City.

b. **Initial Deposit** – Within ten (10) days following execution of this Letter Agreement by both Parties, the City shall make an initial deposit into the Quimby Improvements Account in an amount equal to the Initial Quimby Budget (the “**Initial Deposit**”).

c. **Required City Deposit** – To the extent that after the Initial Deposit the City imposes changes or additional requirements or the cost of the Quimby Improvements increases (as contemplated in Section 3 of this Letter Agreement), the City shall deposit into the Quimby Improvements Account an amount at least equal to the amount specified in the notice of estimated additional costs, within thirty (30) days of the City’s receipt of such notice.

d. **Release of Funds** – From and after the execution of this Letter Agreement, the Escrow Agent will release funds from the Quimby Improvements Account to Heritage Fields as follows:

- i. From time to time (but not more frequently than two times per calendar month), Heritage Fields may submit a written request (a “**Release Request**”) to the City and Escrow Agent to release funds from the Quimby Improvements Account when Heritage Fields: (i) is prepared to issue a notice to proceed to any contractor or consultant with respect to work on one or more Quimby Improvements (a “**Notice to Proceed**”) pursuant to a binding consulting agreement, construction contract, or other written agreement (each, a “**Sports Park Work Contract**”); and/or (ii) has entered into a binding contractual agreement and is prepared to issue a notice under such agreement to purchase materials or supplies (“**Construction Materials**”) to be used in connection with the Quimby Improvements (a “**Materials Contract Order**”). Heritage Fields shall deliver to the City with any Release Request reasonably satisfactory evidence that Heritage Fields has either: (i) entered into a binding Sports Park Work Contract, and/or (ii) issued a Materials Contract Order. A Release Request shall also include an estimated schedule showing when the funds are anticipated to be spent.
- ii. Within five (5) business days of the City’s receipt of the Release Request, the City Representative shall deliver to the Escrow Agent and Heritage Fields’ Representative a “**Release Approval Letter**” (substantially in the form attached hereto as **Exhibit B**), authorizing the Escrow Agent to release funds from the Quimby Improvements Account to Heritage Fields in an amount equal to the requested amount. If the City Representative does not respond to Heritage Fields Representative and Escrow Agent

in writing within such five (5) business day period, either approving the release of funds specified in the Release Request or specifying valid reasons why such amounts should not be released, then Heritage Fields may submit a written notice to the City (a "**Reminder Notice**") reminding the City of the Release Request. If the City Representative does not respond to the Reminder Notice within five (5) business days after receipt, then the City shall be deemed to have approved of the Release Request, after which the Escrow Agent shall release funds from the Quimby Improvements Account in an amount equal to the amount specified in the Release Request. Heritage Fields shall cause any Release Request, which is the subject of an objection by the City, to be revised to respond to such objection and subsequently re-submitted and processed as provided in this Section 4. Heritage Fields shall have no obligation to issue a Notice to Proceed or authorize procurement of Construction Materials unless and until it has actually received funds from the Quimby Improvements Account in the full amount of the cost to complete the work authorized by such Notice to Proceed and/or the full cost to purchase the Construction Materials to be authorized by Heritage Fields for purchase under the applicable Sports Park Work Contract or Materials Contract Order.

- iii. Heritage Fields shall, prior to the first release of funds and quarterly thereafter, submit to City Notices to Proceed with contracted scope and price, cancelled checks, invoices, or receipts, documenting the hard and soft costs spent or committed to be spent in connection with the Quimby Improvements (the "**Documented Costs**"). Submittals may include Documented Costs that were expended, incurred or committed to prior to the date of this Letter Agreement.
- e. **True Up** - The City shall close the Quimby Improvements Account upon the completion of the Quimby Improvements. Prior to closing the Quimby Improvements Account, the Parties shall meet and confer to agree upon a reconciliation of the actual Documented Costs spent with respect to the Quimby Improvements ("**Actual Costs**") against the aggregate amounts of funds disbursed from the Quimby Improvements Account ("**Projected Costs**"). This meet and confer shall occur within 90 days of the later of: (i) completion of the Quimby Improvements and payment by Heritage Fields of all Documented Costs (including retention), or (ii) the Acceptance Date for all of the Quimby Improvements. If such reconciliation discloses a positive difference between Projected Costs and Actual Costs, then Heritage Fields shall deposit into the Quimby Improvements Account an amount equal to such positive difference (the "**True-Up Deposit**") within 120 days of the later of: (i) completion of the Quimby Improvements and payment by Heritage Fields of all Documented Costs (including retention), or (ii) the Acceptance Date for all of the Quimby Improvements. Any remaining funds in the Quimby Improvements Account (including the True-Up Deposit, if any) shall be returned to the City.

Nothing set forth in this Letter Agreement shall amend, modify or alter the terms of the ALA2, except as expressly provided herein.

If the provisions of this Letter Agreement are acceptable to the City, please sign and return a copy of this Letter Agreement to Heritage Fields.

Except as implemented and/or clarified by the terms of this Letter Agreement, each of the City and Heritage Fields acknowledges that the ALA2 remains unchanged and in full force and effect. This Letter Agreement is governed by the laws of the State of California, without regard to conflicts of laws principles. This Letter

Agreement may be executed in several counterparts, each of which when executed and delivered is an original, but all of which together shall constitute one instrument; facsimile and pdf signatures of this Letter Agreement shall be valid as if manually signed.

Sincerely,


HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

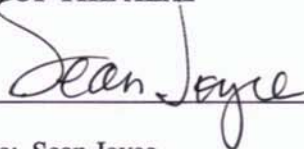
By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member

By: Five Point Heritage Fields, LLC,
a Delaware limited liability company
Its: Administrative Member

By: Five Point Operating Company, LLC,
a Delaware limited liability company
Its: Sole Member

By: 
Print Name: LJ Edgcomb
Print Title: Vice President

**ACKNOWLEDGED AND AGREED TO ON BEHALF OF CITY
PURSUANT TO THE AUTHORITY GRANTED BY SECTION
15(o) OF THE ALA2**



Name: Sean Joyce
Title: City Manager

EXHIBIT A

Quimby Improvements

EXHIBIT A
Quimby Improvements

Description of Quimby Plans:

Phase 1

OCGP Sports Park Design Package #6 Quimby Phase 1 Enhancements, Plan Check No. 00650933-PARK, submitted for 5th plancheck, not yet approved by City of Irvine.

Phase 2

OCGP Sports Park Design Package #6 Quimby Phase 2 Enhancements, Plan Check No. 00650942-PARK, submitted - for 5th plancheck, not yet approved by City of Irvine.

Phase 3

OCGP Sports Park Design Package #6 Quimby Phase 3 Enhancements including Building C, Plan Check No. 00650984-PARK, submitted for 5th plancheck, not yet approved by City of Irvine.

Phase 4

OCGP Sports Park Design Package #6 Quimby Phase 4 Enhancements, Plan Check No. 00650968-PARK, submitted for 5th plancheck, not yet approved by City of Irvine.

Item Ref.	Item	# of Units	Unit
Phase 1			
1	Upgraded Seating - Championship Tennis		
	Permanent Seats	132	EA
2	Upgraded Seating - Volleyball		
	Permanent Seats	156	EA
3	Added Drinking Fountains - Tennis		
	Haws model with 1" PVC piping+sump	3	EA
4	Added Entry Gates		
	Building A		
	Type A Main Gate (3 Pairs)	3	PR
	Building B		
	Type A Gate Single	2	EA
	Type A Main Gate	3	PR
5	Added Championship Soccer Fencing		
	6' Gates - Decorative 2 Type	2	EA
	6' Fencing - Decorative 2 Type	1274	LF
6	Upgraded Championship Soccer Scoreboard		
	"Platinum" style	1	EA
7	Added Tennis Scoreboard	1	EA
8	Added Volleyball Scoreboard	1	EA
9	Shade Structure at Children's Play Area	4	EA
10	Added CCTV Cameras		
	Building A (3) day 1 cameras (fully installed), and infrastructure for (8) future cameras	See Item	
	Building B: (2) day 1 cameras, and infrastructure for (5) future cameras	See Item	
	Buildings H1 & H2: infrastructure for (2) future cameras	See Item	
Phase 2			
11	Added Drinking Fountain		
	Haws model with 1" PVC piping+sump	1	EA
12	Added CCTV Cameras		
	Building D Infrastructure for (4) future cameras	See Item	
Phase 3			
13	Upgraded Seating at Baseball Fields #1-#3		
	Permanent Seats	408	EA
14	Upgraded Seating at Multipurpose Fields #1-#3		
	Permanent Seats	312	EA
15	Added Drinking Fountains		
	Haws model with 1" PVC piping+sump	3	EA
16	Added Entry Gates		
	Building E		
	Type A Gate Single	1	EA
	Type A Main Gates	2	PR
17	Added Championship Baseball Fencing		
	6' Gates - Decorative 2 Type	2	EA
	6' Fencing - Decorative 2 Type	1382	LF
18	Upgraded/ Added Scoreboards		
	Upgraded Championship Baseball		
	Upgraded "Gold" style	1	EA
	Credit "Bronze" style	1	EA
	Relocate conduit	560	LF
	Added 3 Baseball Fields & 3 Multi-Purpose Fields		
	Added "Silver" style	6	EA

EXHIBIT A
Quimby Improvements

Item Ref.	Item	# of Units	Unit
	Added conduit	3207	LF
19	Upgraded Non-Championship Baseball Backstops		
	Added Masonry Wall	6	EA
	Added Channel Padding	6	EA
20	Added Baseball Batting Cage		
	Baseball Batting Cages	4	EA
	Perimeter Lighting-Pole Fixture & Conduit	8	EA
21	Added Restroom (Building "C")		
	Similar to Bldg. D	1554	SF
22	Added CCTV Cameras		
	Building E: (3) day 1 cameras, and infrastructure for (13) future cameras	See Item	
	Building F: Infrastructure for (2) future cameras	See Item	
Phase 4			
23	Upgraded Seating at Softball Fields #2 & #3		
	Permanent Seats x 2 fields	120	EA
24	Upgraded Seating at Softball Fields #4 & #5		
	Bleachers, 2 per field	4	EA
25	Added Drinking Fountains		
	Haws model with 1" PVC piping+sump	2	EA
26	Added Entry Gates		
	Building G		
	Type A Main Gate (3 Pairs)	3	PR
27	Added Championship Softball Fencing		
	6' Gates - Decorative 2 Type	2	EA
	6' Fencing - Decorative 2 Type	837	LF
28	Upgraded/Added Scoreboards		
	Upgraded Championship Softball Scoreboard		
	Upgraded "Silver"	1	EA
	Credit "Bronze"	-1	EA
	Added Conduit	385	LF
	Added Softball Scoreboards		
	Added "Silver" style	4	EA
	Added Conduit	1784	LF
29	Upgraded Non Championship-Softball Backstops		
	Added Masonry Wall	4	EA
	Channel Padding	4	EA
30	Added Softball Batting Cages		
	Softball Batting Cages	4	EA
	Perimeter Lighting-Pole Fixture & Conduit	8	EA
31	Added CCTV Cameras		
	Building G: (2) day 1 cameras, and infrastructure for (8) future cameras	See Item	
All Phases			
Public Safety			
32	Added Security Cameras (Site Only)		
	Camera Ready Pole and Mount	23	EA
	Conduit, Wire and Fiber Including Boxes & Structure	15720	LF
	Axis Network Camera	23	EA
33	Added Command Vehicle		
	Turf Block	15710	SF
	Rolled Curb	570	LF
	Cam-Lock System	3	EA
34	Added Parking Lot Gates		
	Manual Barrier Gate	9	SETS
35	Added Controlled Access Bollards		
	Removable Bollard	25	EA
36	Added Middle Arm Benches		
		1	EA
Functionality/Sustainability			
37	Added Conduit to Parking Lots for Future Solar		
	Conduit Only-Includes Trenching & Backfill	26780	LF

EXHIBIT B

Form of Release Approval Letter

EXHIBIT B
(Sample) Release Approval Letter

_____, 201__

Eric Tolles
City of Irvine
1 Civic Center Plaza
Irvine, CA 92606

First American Title Insurance Company

Irvine, CA

Re: Letter Agreement dated July 20, 2016 ("Letter Agreement") between Heritage Fields El Toro, LLC ("Heritage Fields") and the City of Irvine ("City") – Release Request for Release of Funds from the Quimby Improvements Account (Escrow Account No. ____)

Capitalized terms used but not specifically defined in this Release Request shall have the meaning assigned to them in the Letter Agreement.

As provided for in the Letter Agreement, Heritage Fields hereby provides to the City and Escrow Agent this Release Request for release of funds from the Quimby Improvements Account (First American Title Insurance Company Escrow Account No.____, referred to herein as the "**Escrow Account**") in the amount of _____ Dollars (\$____) (the "**Requested Amount**"). The conditions set forth in Section 4.d.i which are precedent to a Release Request have been met for the entire Requested Amount.

Heritage Fields requests that within five (5) business days of the City's receipt of this Release Request, the City Representative shall deliver to the Escrow Agent and the Heritage Fields Representative a copy of this letter, executed below by the City Representative, authorizing the Escrow Agent to release to Heritage Fields funds from the Escrow Account in an amount equal to the Requested Amount.

Total Release Request

\$ _____

If you have any questions or require any additional information, please do not hesitate to contact Lacie Daniels at (949) 349-1086.

Kind Regards,

LJ Edgcomb
Community President
Five Point Communities Management, Inc.
Development Manager for Heritage Fields El Toro, LLC

cc: Lacie Daniels

City Representative Authorization:

Escrow Agent is authorized to release to Heritage Fields funds from the Escrow Account equal to the Requested Amount.

City Representative Signature

Date

Print Name

Title



July 25, 2017

City Manager's Office

cityofirvine.org

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575

949-724-6246

Mr. LJ Edgcomb
Five Point Communities Management, Inc.
25 Enterprise, Suite 300
Aliso Viejo, CA 92656

RE: Third Amendment to August 4, 2016 Letter Agreement Between the City of Irvine and Heritage Fields El Toro, LLC Regarding Expenditure of Funds for Additional Sports Park Improvements

Dear Mr. Edgcomb:

This letter constitutes a third amendment ("Third Amendment") to that Letter Agreement dated August 4, 2016, between the City of Irvine ("City") and Heritage Fields El Toro, LLC ("Heritage Fields"). Said August 4, 2016 Letter Agreement is referred to herein as the "Enhancement Agreement." Capitalized terms not defined in this Third Amendment shall have the meanings ascribed to such terms in the Enhancement Agreement, unless otherwise indicated.

The Enhancement Agreement provides for funding and procedures for the construction by Heritage Fields of additional Sports Park work in the Orange County Great Park, and reimbursement of Heritage Fields by the City for the cost of those improvements. The City and Heritage Fields desire to add additional improvements to be constructed under the Enhancement Agreement, which were not specified therein. The City and Heritage Fields agree that Heritage Fields will construct the additional improvements described in Exhibit E attached hereto, and the City will reimburse Heritage Fields for the cost of that construction, the estimated costs of which are also set forth in Exhibit E, subject to all of the conditions stated in the Enhancement Agreement.

Nothing set forth in this Third Amendment shall amend, modify or alter the terms of the Enhancement Agreement, except as expressly provided herein. This Third Amendment may be executed in several counterparts, each of which when executed and delivered is an original, but all of which together shall constitute one instrument. Electronically transmitted signatures of this Third Amendment shall be valid as if manually signed.

Sincerely,

Sean Joyce
City Manager

cc: Pete Carmichael, Director, Orange County Great Park

ATTACHMENT 2

Mr. LJ Edgcomb
July 25, 2017
Page 2

ACKNOWLEDGED AND AGREED TO ON BEHALF OF HERITAGE FIELDS

HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member\

By: Five Point Heritage Fields, LLC,
a Delaware limited liability company
Its: Administrative Member

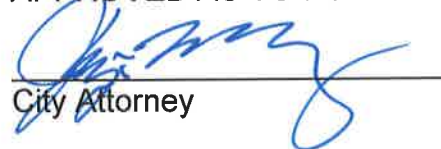
By: Five Point Operating Company, LLC,
a Delaware limited liability company
Its: Sole Member

By: _____

Print Name: _____

Print Title: _____

APPROVED AS TO FORM:



City Attorney

Mr. LJ Edgcomb
July 25, 2017
Page 3

EXHIBIT "E"

Description of Improvement	Cost Change
Additional Storage Rooms – Phase 2, 3, 4 Utility Enclosures	\$21,000
Revisions and Enhancements to IT Rooms – Phase 1	\$50,000
Total	\$71,000

2.4

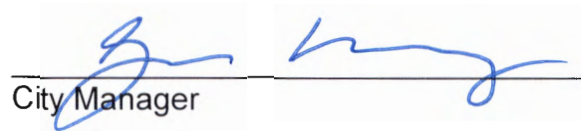


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: AWARD OF CONTRACT FOR WIRELESS MARKETING AND MANAGEMENT SERVICES AT THE ORANGE COUNTY GREAT PARK


Director, Orange County Great Park


City Manager

RECOMMENDED ACTION

1. Authorize the Orange County Great Park Director to execute a contract with 5 BARS Communities, LLC for wireless marketing and management services and subsequent sublicenses at the Orange County Great Park.
2. Approve a budget adjustment to appropriate \$85,000 in the Orange County Great Park Fund for a wireless infrastructure master plan funded from future lease revenue.

EXECUTIVE SUMMARY

On April 25, 2017, City Council and the Great Park Board directed staff to open negotiations with 5 BARS Communities, LLC (5 BARS) for wireless marketing services at the Great Park due to an immediate need to protect the City's proprietary interests in light of pending state regulatory and legislative changes. Due to a conflict of interest with Rutan & Tucker, LLP, the City engaged Telecom Law Firm PC (Telecom) to assist with negotiations and contracting with 5 BARS. Staff has concluded negotiations with 5 BARS and presents the proposed Great Park Wireless Marketing Agreement (Agreement) for consideration. A separate agreement for citywide wireless and marketing services is being presented to City Council for consideration. The two agreements were separated due to distinct funding sources and approval processes for Great Park Fund and General Fund contracting based on the rules established by Measure V, the Great Park Fiscal Transparency and Reforms Act.

Highlights of the Great Park Agreement are:

- Services provided by 5 BARS:
 - Conduct a Radio Frequency (RF) study
 - Prepare an inventory of potential Great Park assets for leasing to 5 BARS and sublicensing to third parties for wireless communications purposes
 - Develop a marketing plan for Great Park assets
 - Develop cellular facility design standards for City review and approval

- Provide, at the City's option, certain add-on services for cellular, Wi-Fi and fiber optics master planning for the Great Park
- Costs to the Great Park:
 - No up-front costs for services
 - Add on services, such as cellular, Wi-Fi and fiber optics master planning paid from the Great Park's share of gross revenues derived from licenses and sublicenses
- Term:
 - 5 year initial term with four 5-year optional renewal periods for a maximum term of 25 years
- Revenue Share:
 - 65 percent Great Park Fund and 35 percent 5 BARS for new wireless facilities on Great Park assets
 - 75 percent Great Park Fund and 25 percent 5 BARS for each additional wireless facility sublicense added to Great Park assets
 - 80 percent Great Park Fund and 20 percent 5 BARS for managing existing wireless facility agreements on Great Park property
 - 5 BARS retains compensation rights for the term of the new licenses and sublicenses, even after the Agreement ends
- Control of Great Park Assets:
 - City retains the right to determine which Great Park-owned property is marketed, including the right to make adjustments to approved marketing asset lists
 - City has final approval on rental amounts
 - All agreements will be subject to conditions that require 5 BARS and related third parties to respect the City's municipal functions in connection with the Great Park assets (e.g., street lighting operations, traffic signal maintenance, right-of-way maintenance, City communications equipment)
 - City may terminate Agreement with 90-day notice
- Liability
 - City's standard insurance and indemnification provisions
 - If marketing plan is terminated or insufficient revenue is generated, the Great Park is responsible for cost of add-on services

While there are no guarantees that this Agreement will preserve the Great Park's proprietary interests in its assets, it is the best attempt to carry out the Great Park Board's stated objective to maximize local control over proprietary assets while encouraging and accelerating the deployment of advanced communications technologies for the City's residents, businesses, and visitors. The Agreement also contemplates providing a wireless infrastructure master plan, originally sought through the Request for Proposals for wireless and telecommunication consulting services, to be paid from the Great Park's portion of the Revenue Share. The proposed budget adjustment of \$85,000 appropriates the amount for the master plan to be paid from future revenues.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Unless otherwise directed by a member of the City Council, the vote on this matter will reflect the prior action of each City Councilmember when he or she sat and voted as a member of the Board of Directors of the Orange County Great Park Corporation. However, if a Councilmember is not present at the City Council meeting, his or her vote will be reflected as absent.

ANALYSIS

On April 25, 2017, staff brought for consideration an award of contract and budget adjustment for wireless and telecommunication consulting services. The City Council and Great Park Board, on a 3-1-1 vote (Mayor Pro Tem/Boardmember Schott voted no; Councilmember/Boardmember Lalloway absent) cancelled the Request for Proposals (RFP) and directed staff to begin negotiating with 5 BARS for wireless marketing services as a sole source contract. Due to a conflict of interest with the City Attorney's Office, Rutan & Tucker, LLP, staff contracted with Telecom to assist with negotiations and contracting. Telecom has specific expertise in wireless facilities and has advised the City on many previous telecommunication-related matters.

The Agreement (Attachment 1) carries out the intent of the motion. The final Agreement includes several exhibits. Of specific importance is the license agreement (Exhibit A to the Agreement). Combined, the Agreement and license agreement provide the authority for 5 BARS to market and manage Great Park assets. The license agreement authorizes 5 BARS to enter into sublicenses for the Great Park's benefit, subject to specific limitations in the areas of interference, insurance, indemnification, and coordination with municipal functions. To ensure the delivery of a strategic comprehensive plan and to maximize the benefit to the Great Park, a master plan is included as Additional Services, to assist the Great Park in fulfilling the original intent of the RFP.

Services

Once the Agreement is executed, 5 BARS will conduct a radio frequency (RF) study to identify the current state of wireless coverage within the Great Park. This will allow 5 BARS to identify wireless provider needs, and help identify potential new sites for wireless telecommunication facilities to address those needs. This will take 90 days.

In addition to benchmarking and identifying assets, 5 BARS will develop a marketing plan and actively market Great Park assets to wireless providers. 5 BARS will execute license agreements with the Great Park and wireless provider sublicenses with the City's approval.

Additional Services

With each carrier needing their own individual sites, fiber optic, and supporting infrastructure, an uncoordinated process will lead to inefficient use of assets, duplicative construction, and detrimental impacts on Great Park infrastructure. 5 BARS will, at the City's request and approval, undertake a cellular, fiber optic, and infrastructure master plan to meet the

competing demands for the Great Park finite assets and minimize service disruption caused by uncoordinated construction deployments. These services are described in Exhibit D of the Agreement. 5 BARS and the City will mutually agree on the scope, cost and timeframe for such studies prior to commencement. Staff estimates the total cost for the master plan to be \$85,000. The cost of Additional Services will be paid from a portion of the Great Park's recurring revenue share, such that 5 BARS will be able to recoup its out-of-pocket costs for the add-on services over time. If the revenue share is insufficient to cover these expenses, or the Agreement is terminated prior to these services being paid for, the Great Park will be liable for the remaining cost of the services. A budget adjustment is needed to appropriate the expenditure and the corresponding lease revenue.

Costs

The Great Park will bear no up-front cost for any services. The RF study, inventory, marketing and leasing/licensing services will be paid for through the Revenue Share provisions of the Agreement. 5 BARS will be entitled to their portion of the Revenue Share for the term of the license agreements they implement. The costs of Additional Services will be paid from the Great Park's revenue share, unless the Great Park share is insufficient to cover the cost, in which case the Great Park will be responsible for payment.

Revenue

The Great Park Fund will receive the majority of lease payments via a revenue share plan. There are three levels of revenue share: for new facilities, collocations to new facilities and for existing facilities. For new facilities procured by 5 BARS, the Great Park Fund will receive a 65 percent share and 5 BARS will receive a 35 percent share of lease revenues. For collocations to such new facilities procured by 5 BARS, the Great Park Fund will receive a 75 percent share and 5 BARS will receive a 25 percent share. For existing wireless facility leases that 5 BARS manages, the Great Park Fund will receive an 80 percent share and 5 BARS will receive a 20 percent share. All compensation due to the Great Park is payable within 30 days after receipt by 5 BARS and subject to a late penalty. 5 BARS will be responsible for providing written annual reports containing summary information on all licenses, revenues and assets pertaining to the Agreement.

Control

While 5 BARS will make recommendations for the marketing of Great Park assets, the City will retain the right to determine which assets are marketed. The City will also retain the right to determine lease/license amounts, and reject proposed agreements that would be detrimental to the City's best interests. Once a license is entered into, 5 BARS will be entitled to its share of revenue for the life of the license, even if the Agreement ends. The City has the right to terminate the Agreement with a 90-day notice, and 5 BARS has the right to appeal any such termination to the Great Park Board. The City may also lease or license its own assets and add or withdraw assets from the inventory of 5 BARS authorized assets.

Liability

The Great Park will have no liability to pay 5 BARS any upfront costs for any services. The Great Park will have the obligation to pay for any pre-approved add-on services from its share of the revenue; provided, however, that if the revenue is insufficient the Great Park

will be obligated to directly pay for the services. General City insurance and indemnification provisions are included in the Agreement, licenses and sublicenses.

Update on Pending State Legislation and Impact on the Proposed Agreement

SB 649 (Hueso), which would define “small cells” as a permitted use not subject to discretionary review, require cities and counties to grant access to municipal property, and would mandate the rates, terms and conditions. This bill is currently pending before the State Assembly Committee on Appropriations. So far the bill has passed through two Assembly committees with amendments attached that will need to be approved by the Senate before it can be presented to the Governor. If the bill passes into law in this legislative session, its provisions would most likely take effect on January 1, 2018.

SB 649 contains a “grandfathering clause” that preserves agreements between local governments and wireless providers entered into prior to the bill’s effective date. The proposed Agreement with 5 BARS, and any subsequent sublicenses between 5 BARS and wireless providers entered prior to the effective date, would be “grandfathered in” and therefore not subject to state-mandated rates, terms, and conditions under SB 649.

The following considerations are noteworthy regarding the grandfathering clause:

- **Loophole:** The grandfathering clause contains a loophole in which agreements that can be terminated may be re-entered under the state-mandated rates, terms and conditions. Accordingly, if the proposed Agreement or any sublicenses are terminated for any reason, SB 649 would then become applicable to the sites covered by the proposed Agreement and any related sublicenses.
- **City/Great Park Assets Covered by the Proposed Agreement:** The marketing, licensing, and administrative services component in the proposed Agreement covers only those Great Park assets that the City identifies as available for marketing by 5 BARS, and then agrees to license to 5 BARS, who will then sublicense the assets to wireless providers. Although there is some speculation that the grandfathering clause would extend to all the City’s assets, the more conservative view is that the grandfathering provision would most likely be applicable only to those assets the City actually licenses to 5 BARS. Accordingly, assets not licensed to 5 BARS may still be subject to SB 649 even if the City enters into the proposed Agreement.

Lastly, SB 649 has evolved significantly as it winds its way through the legislative process. This analysis, provided by Telecom, may need to be adjusted if additional amendments are added.

ALTERNATIVES CONSIDERED

The proposed Agreement is the result of negotiations as directed by the Great Park Board/City Council. Any changes to the Agreement would need to be negotiated with 5 BARS.

FINANCIAL IMPACT

Prospective new revenue attained by this Agreement will be a net gain to the Great Park, but could vary widely based on pending state and federal regulations. The cost of the master plan, not-to-exceed \$85,000, will affect the Great Park's share of lease revenue received. 5 BARS will deduct 10 percent from the Great Park's recurring revenue share until its costs are fully recouped. In the event the recurring payments are insufficient to recoup the costs, the Great Park Fund will directly reimburse 5 BARS for the balance within 24 months from acceptance of the master plan.

REPORT PREPARED BY Khaled Tawfik, Chief Information Officer

ATTACHMENTS

1. Wireless Marketing Agreement
2. Budget Adjustment

WIRELESS MARKETING AGREEMENT BETWEEN THE CITY OF IRVINE AND 5 BARS COMMUNITIES

This Wireless Marketing Agreement (this “**AGREEMENT**”) is made and entered into on _____, 2017 (the “**Effective Date**”) between the City of Irvine, a chartered California municipal corporation (“**CITY**”), and XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities (“**5 BARS**”) (each a “**PARTY**” and collectively the “**PARTIES**”), with reference to the following facts and intentions, which the PARTIES agree are true and correct to the best of their knowledge and belief:

BACKGROUND

- A. CITY is a chartered municipal corporation formed under the laws of the State of California, operating under its charter.
- B. 5 BARS is a limited liability company formed under the laws of Delaware.
- C. 5 BARS offers master planning services and tools that merge technical expertise on wireless coverage needs with surveys of existing and forecasted wireless coverage conditions. 5 BARS evaluates that information to identify existing municipal assets that can meet wireless coverage needs.
- D. 5 BARS provides planning tools so that subscribing municipal corporations may access the information and identify intelligent options and solutions for the processing of applications for wireless telecommunications facilities on a real-time basis.
- E. Subject to the terms and conditions in this Agreement, CITY desires to engage 5 BARS to provide wireless consulting, management and development services related to the use of certain CITY assets within the “Orange County Great Park” portion of the CITY for the purpose of planning and implementing a marketing plan for Wireless Telecommunications Facilities (as that term is defined in Section 2, below), as further described herein.
- F. Subject to the terms and conditions in this Agreement, CITY desires to engage 5 BARS to proactively market certain CITY-owned underutilized assets on terms that maximize revenue and minimize planning impacts and visual blight.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing background, which is incorporated into the operative provisions of this Agreement by this reference, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the PARTIES AGREE as follows:

1. **Term.** This Agreement shall be effective on the date it is executed by all PARTIES and shall be in effect for an initial term of five (5) years. This Agreement may be renewed for four (4) five (5) year renewals subject to the written mutual consent of the PARTIES. The full potential term of the Agreement is twenty five (25) years (the “**Agreement Term**”).
2. **Scope and Nature of Services.** 5 BARS shall provide the services described in this section (“**Services**”) for the purposes of 5 BARS’s planning, marketing, sublicensing, development, maintenance and/or operation of certain tower(s), pole(s), building(s), fiber, conduit(s), data room(s), street furniture and any structure(s) or object(s) of any kind or character not particularly mentioned herein (“**City Asset(s)**”), which 5 BARS proposes to locate or cause to be located on City Assets and within the public rights-of-way

within CITY's territorial boundaries ("**City Right-of-Way**") for the purposes of promoting, transmitting or facilitating wireless communication of telephone or data or any other means ("**Wireless Telecommunications Facilities**"). CITY shall, in CITY's sole and absolute discretion, identify a list ("**Asset List**") of City Assets to be included in Services provided by 5 BARS. CITY may, in CITY's sole and absolute discretion, elect to add or remove one or more City Assets from the Asset List at any time by notifying 5 BARS in writing. Any changes by CITY to the Asset List shall be effective immediately upon receipt by 5 BARS. Notwithstanding the foregoing, the Scope of this Agreement shall be limited to only those Properties within the boundary containing the "Orange County Great Park" in the CITY.

a. **Consulting Services.** 5 BARS shall provide CITY the following consulting services at no cost to CITY: a comprehensive radio frequency ("**RF**") analysis, which will, among other things: (i) describe, using state-of-the-art metrics, the current state of wireless coverage within CITY's jurisdiction for each major wireless telecommunications carrier; (ii) identify key areas of multiple wireless broadband service provider coverage needs ("**Coverage Needs**"); (iii) identify potentially available City Assets (whether identified on the Asset List or not) that would satisfy or partially satisfy Coverage Needs; and (iv) provide RF modeling to show how the selection of additional sites for Wireless Telecommunications Facilities will address Coverage Needs. The items referred to in clauses (i), (ii) and (iii) from the preceding sentence are hereinafter collectively referred to as the "**Master Plan**," while the items referred to in clauses (i), (ii), (iii) and (iv) in the preceding sentence are hereinafter collectively referred to as the "**Consulting Services**". 5 BARS shall deliver the Master Plan to CITY within ninety (90) days from the Effective Date. In addition to the Master Plan and Consulting Services, and at no additional cost to CITY, 5 BARS shall perform the services described **Exhibit "D"** (the "**Additional Services**"), attached hereto and incorporated herein by this reference. For the duration of the Agreement Term, 5 BARS shall also provide: (I) on a quarterly basis, a written report summarizing investments, technology changes, financial gains and provider plans; and (II) on an annual basis, ongoing RF analysis with written reports, feasibility analysis, pricing and fee recommendations, form factor and aesthetic policy development, technology refresh and advancement updates and other consultation specific to wireless broadband service providers, unless 5 BARS and CITY mutually waive the annual ongoing study, to ensure CITY is capitalizing on opportunities to improve wireless broadband service to the community.

b. **Marketing Services.** At no cost to CITY, 5 BARS shall market the Master Plan to wireless carriers, cable companies, internet service providers ("**ISPs**"), street light providers and Internet of Things ("**IoT**") companies (collectively referred to as "**Wireless Services Providers**") to obtain their feedback and solicit their interest in locating and/or collocating on any existing and/or proposed site(s) included in the Master Plan. Except as otherwise provided in this Agreement, CITY grants 5 BARS the exclusive right to market, license, sublicense, and construct upon, at 5 BAR's sole cost and expense, City Assets identified on the then-current Asset List for the development of Wireless Telecommunications Facilities. 5 BARS shall market the Master Plan to all Wireless Services Providers equally, without any discrimination and/or favoritism between Wireless Services Providers, and with a goal of ensuring that residents, visitors, and businesses within CITY's jurisdiction receive the maximum benefit of all available services from all existing Wireless Services Providers.

c. **Management Services.**

i. During the Agreement Term, 5 BARS may at any time request in writing that CITY make any City Assets available for the development of Wireless Telecommunications Facilities. CITY shall have sole and absolute discretion to approve or disapprove any such request. Upon a determination of approval, CITY shall notify 5 BARS of such determination in writing, and shall offer to enter into a license with 5 BARS, which license shall be in a form that is substantially consistent with the form set forth in **Exhibit "A"** (each a "**License**") attached hereto and incorporated herein by this reference.

ii. After the PARTIES fully execute a License, 5 BARS or an affiliate of 5 BARS, at no cost to CITY, shall construct or cause the construction of the Wireless Telecommunications Facilities, and sublicense the City Assets (either as improved with Wireless Telecommunications Facilities, or subject to improvement with Wireless Telecommunications Facilities) in accordance with the terms of this Agreement and the License to be executed for each designated City Asset (provided, however, that CITY may authorize 5 BARS to use a single License for multiple or all sites that are the subject of this Agreement).

iii. 5 BARS understands and acknowledges that CITY shall have the final determination as to whether to approve or disapprove the execution of a License and/or other agreement of substantially equivalent purpose (or an amendment to any such License and/or other agreement) for any City Asset. 5 BARS further understands and acknowledges that it must comply (or cause compliance) with and receive (or cause receipt of) all necessary entitlements and permits from CITY, in CITY's regulatory capacity as a local public agency, including but not limited to complying (or causing compliance) with CITY's ordinances, regulations, guidelines, policies and procedures governing Wireless Telecommunications Facilities, all applicable building codes and public works requirements, as well as complying (or causing compliance) with and receiving (or causing receipt of) all necessary and applicable permits from any other regulatory agency, before 5 BARS undertakes (or causes the undertaking of) any construction, installation or other work subject to any prior permit or other regulatory approval on any City Asset.

d. **Exclusions.**

i. This Agreement shall not require or allow 5 BARS to market, license, sublicense, and/or construct Wireless Telecommunications Facilities on City Assets that are not on the approved Asset List.

ii. City Assets intended for direct-marketing by the City for macrocell site development are identified in writing by the City ("***City Marketed Assets***"). City Marketed Assets shall be marketed, if at all, directly by the City only; marketing rights for such assets shall not be granted, delegated or contracted to any third party. CITY may, in its sole and absolute discretion, elect to add or remove one or more City Marketed Assets from the City Marketed Asset List at any time and notify 5 BARS in writing. Any changes by CITY to the City Marketed Asset List shall be effective immediately upon receipt by 5 BARS. Notwithstanding anything in this Agreement to the contrary, this Agreement shall not prohibit or limit CITY's ability to assign or in any other manner transfer to any third parties any CITY interest, in whole or in part, in any CITY leases, licenses, and other agreements in existence as of the Effective Date.

iii. This Agreement shall not require the provision of Services by 5 BARS for facilities licensed to any municipal, county, district, agency, state or federal government for stations in the Private Land Mobile Radio Services, Maritime Radio Services, Aviation Radio Services, other stations designated for Homeland Security or Law Enforcement communications or the circuits necessary to support such facilities ("***Excluded Services***"). This Agreement shall not limit, control, or govern the provision of the Excluded Services by CITY.

3. **[intentionally omitted from this Agreement]**

4. **Right of Entry Agreement.** Subject to the terms and conditions in this Agreement, 5 BARS shall have the right to analyze the suitability of the City Assets designated by CITY for 5 BARS' Services. CITY and 5 BARS shall enter into a Right of Entry Agreement for 5 BARS, substantially in the form shown in **Exhibit "B"** attached hereto and incorporated herein, and its employees, agents, contractors, engineers and surveyors to have the right to enter upon City Assets, upon reasonable written notice to CITY, to (i) inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of City Assets; (ii) to apply for all licenses and permits required

for 5 BARS' use of the designated City Assets from all applicable governmental or regulatory entities; (iii) to do those things on or off the designated City Assets that, in the sole opinion of 5 BARS, are necessary to determine the physical condition of designated City Assets; (iv) and the feasibility or suitability of the designated City Assets for 5 BARS' use ("***Due Diligence Investigation***"). Activities conducted in connection with 5 BARS' Due Diligence Investigation shall be at the sole expense and cost of 5 BARS. The Right of Entry Agreement shall grant 5 BARS non-exclusive access to the designated City Assets for a defined and specific period of time as set forth in the Right of Entry Agreement. Notwithstanding anything in this Agreement or any Right of Entry Agreement to the contrary, CITY shall have the right to (a) refuse access to the designated City Assets when the requested access would interfere with CITY's municipal functions and (b) observe access to the designated City Assets and any on-site Due Diligence Investigation.

5. **CITY-Owned Wireless Telecommunications Facilities and CITY Licenses.** CITY shall retain ownership of all CITY leases, licenses, and other agreements in existence as of the Effective Date with wireless providers located within CITY's jurisdictional boundaries, provided, however that 5 BARS shall, upon CITY's written request, enter into a license in a form substantially similar to Exhibit "A" (but adapted for the purposes of 5 BARS' management of macrocell facilities on CITY's private property) to manage any such existing CITY lease, license, or other agreement with wireless providers ("***Managed Macrocells***"). CITY shall retain ownership of any Wireless Telecommunications Facilities CITY subsequently develops on property owned or leased by CITY for CITY's own non-commercial use. 5 BARS and/or its sublicensees shall own the Wireless Telecommunications Facilities developed on City Assets pursuant to this Agreement.

6. **Compensation.**

a. CITY shall be entitled to **sixty-five percent (65%)** of recurring gross payments that are received by 5 BARS from sublicensees on new Wireless Telecommunications Facilities that are on City Assets licensed to 5 BARS pursuant to this Agreement. 5 BARS shall be entitled to keep the remaining **thirty-five percent (35%)** of recurring gross payments.

b. CITY shall be entitled to **seventy-five percent (75%)** of recurring gross payments that are received by 5 BARS as a result of the addition of one (1) or more Wireless Telecommunications Facilities to the site of a Wireless Telecommunications Facility. 5 BARS shall be entitled to keep the remaining **twenty-five percent (25%)** of recurring gross payments.

c. CITY shall be entitled to **eighty percent (80%)** of recurring gross payments that are received by either 5 BARS in connection with any Managed Macrocells. 5 BARS shall be entitled to keep the remaining **twenty percent (20%)** of recurring gross payments.

d. All sums payable to CITY under Section 6(a) and Section 6(b) are referred to as "***Compensation***". 5 BARS shall pay CITY all Compensation, without setoff, deduction or counterclaim, promptly upon receipt from the Wireless Service Provider or any other licensee or sublicensee of City Assets. Any Compensation not received by CITY within thirty (30) business days from the date the recurring gross payment is due to 5 BARS shall be subject to an immediately due and payable late charge equal to six percent (6%) of the outstanding amount. In addition to any late charge, any Compensation not received by CITY within sixty (60) calendar days from the date the recurring gross payment is due to 5 BARS shall bear interest at ten percent (10%) per annum or the highest rate permitted by law (whichever is greater).

e. **Reports.** Annual written reports reflecting the revenue generated by 5 BARS from City Assets and revenues generated to CITY will be provided by 5 BARS (each an "***Annual Report***"). Each Annual Report shall contain a list of all licenses, sublicenses and/or other agreements in connection with City Assets, and a ledger that shows the date and amount for all sums received by 5 BARS in connection

with said licenses, sublicenses and/or other agreements.

7. **Construction, Engineering, and Other Costs.** CITY shall have no financial responsibility for planning, construction, and engineering costs associated with the implementation of this Agreement. 5 BARS may recover from Wireless Service Providers the reasonable construction costs, installation costs, utilities or other expenses incurred by 5 BARS, to the extent said reimbursement does not reduce the rent to be paid by Wireless Service Providers, and such recovered sums shall not be included in the computation of Compensation; provided, however, that any such reimbursement shall be disclosed in the Annual Report immediately following 5 BARS' receipt of such sums. For the avoidance of doubt, no sums payable by a Wireless Service Provider to 5 BARS as reimbursement for expenses in connection with the implementation of this Agreement shall be added to or deducted from "gross payments" for purposes of Section 6.

8. **Default; Termination.**

a. If there is a default by either PARTY to this Agreement, the PARTY claiming a default of any term or condition of this Agreement shall provide the defaulting PARTY with written notice of the default pursuant to the provisions contained in Section 15(h) of this Agreement. After receipt of such notice, the defaulting PARTY shall have ten (10) calendar days in which to cure any monetary default and sixty (60) days in which to cure a non-monetary default. If a non-monetary default reasonably requires more than a sixty (60) day cure period, the defaulting PARTY shall have such extended period provided that the defaulting PARTY commences the cure within the sixty (60) day period and thereafter diligently pursues the cure to completion.

b. Subject to and without limiting the foregoing, the PARTIES agree that the following events shall constitute a default: (i) failure by 5 BARS to diligently market the Master Plan in accordance with Section 2(b), above, shall constitute a default under this Section 8; (ii) the appointment of a receiver due to 5 BARS' insolvency to take possession of all or substantially all of the assets of 5 BARS; (iii) an assignment by 5 BARS for the benefit of creditors; or (iv) any action taken by or against 5 BARS under any insolvency, bankruptcy, reorganization, moratorium, or other debtor relief laws, if any such receiver, assignment, or action is not released, discharged, dismissed, or vacated within 60 calendar days.

c. In addition to all CITY's other termination rights, CITY may terminate this Agreement for any reason upon ninety (90) days written notice to 5 BARS; provided, however, that 5 BARS shall have a right to file an appeal to the City Council within such 90-day period. If 5 BARS fails to timely appeal, the termination will be effective upon the end of the 90-day period. If 5 BARS timely appeals, then the effective date of the termination will be stayed until the City Council reaches a final determination.

9. **Right to Audit.** During the Term of this Agreement the PARTIES shall maintain originals or, when originals are not available, copies of all records, books, papers, correspondence and documents relating to this Agreement and all accompanying licenses, sublicenses or other agreements between the PARTIES. 5 BARS shall maintain originals or, when originals are not available, copies of all records, books, papers, correspondence and documents relating to any licenses, sublicenses or other agreements between 5 BARS and any third parties in connection with City Assets. At all reasonable times, the PARTIES shall allow each other to have access to examine and audit such all records, books, papers, correspondence and documents. Additionally, 5 BARS shall allow CITY, and CITY shall have the right, at any time, to have access to and examine and audit records, books, papers, correspondence and documents relating to or evidencing 5 BARS' efforts to obtain sublicenses as such records, books, papers, correspondence and documents may or may not exist in the normal course of 5 BARS' business. CITY shall have the right to copy, carry away and disclose to others any and all records, books, papers, correspondence and other documents in connection with this Agreement to the extent that such copying, carrying away and disclosing is required by applicable laws or any judicial or administrative order.

10. **Indemnification.** 5 BARS shall indemnify, defend, and hold CITY and its employees, representatives, officers and agents (collectively hereinafter “***City Personnel***”) harmless from and against any and all actions, suits, claims, demands, judgments, attorney’s fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter “***claims***” or “***liabilities***”) that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of 5 BARS, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of CITY and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of CITY or City Personnel in connection therewith: (a) 5 BARS shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney’s fees incurred in connection therewith; (b) 5 BARS shall promptly pay any judgment rendered against CITY or any City Personnel for any such claims or liabilities; and (3) in the event CITY and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, 5 BARS shall pay to CITY any and all costs and expenses incurred by CITY or City Personnel in such action or proceeding, together with reasonable attorney’s fees and expert witness fees.

11. **Insurance.** At the time 5 BARS signs and delivers this Agreement to CITY, as well as at all times during the Agreement Term, 5 BARS shall maintain, at a minimum, the required insurance as set forth in the attached **Exhibit “C”** to this Agreement. CITY shall be entitled to coverage at the maximum policy limits for the required insurance maintained by 5 BARS, which shall at no time be less than the amounts required set forth in the attached Exhibit “C” to this Agreement. This Agreement’s insurance provisions shall be separate and independent from the indemnification and defense provisions of Section 9 of this Agreement and shall not in any way limit the applicability, scope or obligations of the indemnification defense provisions in Section 9. Neither 5 BARS nor any 5 BARS employee, agent, representative or subcontractor shall be permitted to exercise any rights to access or market any City Assets under this Agreement until CITY receives copies of all insurance policies, endorsements and other documentation required under this Agreement, including without limitation **Exhibit “C”**. 5 BARS’ obligations under this Section 11 will survive the expiration or termination of this Agreement.

12. **Compliance with Local Ordinances.** Subject to Section 3 above, 5 BARS shall comply with all CITY ordinances pertaining to Wireless Telecommunications Facilities, and all such additional CITY regulations that are consistent with such ordinances (such ordinances and regulations are collectively referred to hereinafter as the “***Ordinance***”).

13. **Intellectual Property.**

a. **Ownership of Services.** 5 BARS retains all right, title, and interest in any underlying software subject to the limitations set forth in this Agreement.

b. **License.** 5 BARS hereby grants to CITY a limited, non-exclusive, non-transferable, non-sublicensable license during the term of this Agreement to use the Services for the purposes of offering, promoting, managing and tracking the development and use of Wireless Telecommunications Facilities. At the time this Agreement expires or terminates, all documents, reports, charts, graphs, diagrams, maps, things and other work product related to the Master Plan and the Additional Services shall become the CITY’s property.

c. **Exclusivity.** During the term of this Agreement, 5 BARS will be the sole and exclusive provider of services as defined as “Services” in this Agreement, subject to the City’s right to directly market City Marketed Assets and continue to do all acts and things in connection with any CITY

leases, licenses, and other agreements in existence as of the Effective Date. CITY expressly understands and agrees that the exclusivity set forth in this Agreement is consideration in exchange for the pricing and other benefits being provided to CITY hereunder. 5 BARS expressly understands and agrees that the value and timely performance of the Services are consideration in exchange for the exclusivity granted in this Agreement.

d. Additional CITY Commitments. CITY acknowledges that it is using licensed software containing proprietary and intellectual property and shall: (i) not copy, modify, transfer, display, share or use any portion of the licensed software except as expressly authorized in this Agreement, as may be required by law or in the applicable documentation; (ii) not contest or do or aid others in contesting or doing anything which impairs the validity of any proprietary or intellectual property rights, title or interest of 5 BARS in and to any software; (iii) not engage in any activity undertaken in CITY's proprietary capacity that unreasonably interferes with or unreasonably disrupts 5 BARS' provision of the Services; and (iv) use the Services exclusively for authorized and legal purposes, consistent with all applicable laws, regulations and the rights of others.

14. Governing Law. This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State of California. The parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange.

15. General Provisions.

a. Independent Contractor. 5 BARS shall, during the Agreement Term, be construed as an independent contractor and not an employee of CITY. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship or to allow CITY to exercise discretion or control over the professional manner in which 5 BARS performs the services which are the subject matter of this Agreement; however, the services to be provided by 5 BARS shall be provided in a manner consistent with all applicable standards and regulations governing such services. 5 BARS shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

b. Authorizations. All individuals executing this Agreement on behalf of the respective PARTIES certify and warrant that they have the capacity, and have been duly authorized to so execute this Agreement on behalf of the entity so indicated.

c. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

d. Entire Agreement and Amendment. This Agreement captures all terms, agreements, and understandings of the PARTIES and supersedes any prior promises, representations, agreements, warranties or undertakings by any of the PARTIES, either oral or written, of any character or nature binding except as stated herein. This Agreement may be modified, altered or amended only by an instrument in writing, executed by the PARTIES to this Agreement, and by no other means. Each PARTY waives its right to claim, contest or assert that this Agreement was modified, canceled, superseded or changed by any oral agreement, course of conduct, waiver or estoppel.

e. Good Faith. The PARTIES agree to exercise their reasonable best efforts and utmost good faith to effectuate all the terms and conditions of this Agreement, and to execute such further instruments and documents, in forms reasonably acceptable to both CITY and 5 BARS, as are necessary or appropriate to effectuate all of the terms and conditions of this Agreement.

f. Assignment. 5 BARS may assign this Agreement to a person or entity with demonstrated capacity to carry out 5 BARS' obligations under this Agreement after receiving written CITY consent, which shall not be unreasonably withheld or delayed. 5 BARS shall provide any information requested or necessary for CITY to determine whether the proposed assignee has the capacity to fulfil 5 BARS' obligations under this Agreement. Any assignment in violation this Section 15(f) shall be void.

g. Discrimination. 5 BARS shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, age, national origin, ancestry or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities. 5 BARS affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

h. Notices. All notices, approvals, acceptances, demands and other communication required or permitted under this Agreement, to be effective, shall be in writing and, unless otherwise provided herein, shall be deemed validly given on the date either: (1) personally delivered to the address indicated below; or (2) on the third business day following deposit, postage prepaid, using certified mail, return receipt requested, in any U.S. Postal mailbox or at any U.S. Post Office; or (3) one business day after the dispatch date by overnight delivery service; or (4) on the date of transmission by facsimile to the number provided below. All notices, demands, or requests shall be addressed to the following:

CITY:

Phone: _____
Fax: _____

With a copy to:

Phone: _____
Fax: _____

5 BARS:

Kevin Muldoon, VP & General Counsel
5 Bars Communities
19200 Von Karman Ave, Suite 100
Irvine, CA 92612
Phone: 949-514-4617
Fax: 949-266-9160

With a copy to:

Rutan & Tucker, LLP
611 Anton Blvd., 14th Floor
Costa Mesa, CA 92626
Phone: 714-641-5100
Fax: 714-546-9035

Any PARTY may change its address by giving the other PARTIES written notice of its new address as provided above.

i. Successors. This Agreement shall be binding on and shall inure to the benefit of the PARTIES and their respective successors.

j. Waiver. No failure by either PARTY to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by CITY of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of CITY's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either PARTY of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A PARTY's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting PARTY's consent in any other or future instance under the terms of this Agreement.

k. Captions. The captions preceding the Sections of this Agreement are intended only for convenience of reference and in no way define, limit or describe the scope of this Agreement or the intent of any provision hereof.

l. Construction of Document. CITY and 5 BARS acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said party being the drafter and that this Agreement shall not be construed as a binding offer until signed by 5 BARS. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

m. Partial Invalidity. If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

n. Survival. Expiration or earlier termination of this Agreement will not affect the right of either party to enforce any and all indemnities and representations and warranties given or made to the other party under this Agreement, or any provision of this Agreement that expressly survives termination or expiration, or by its sense or context contains an obligation that either should survive expiration or termination or would necessarily be performed after expiration or termination.

o. Attorneys' Fees. In the event that either PARTY prevails in an action to enforce its

rights under this Agreement, the prevailing PARTY shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

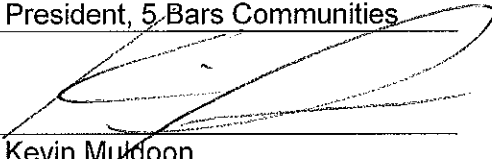
IN WITNESS WHEREOF, CITY and 5 BARS having read the foregoing and intending to be legally bound hereby, have executed this Agreement as of the day and year this Agreement is fully executed.

CITY OF IRVINE

By: _____
Pete Carmichael
Its: Director, Great County Great Park

**5 BARS
XG COMMUNITIES, LLC, a Delaware
limited liability company,
dba 5 Bars Communities**

By: 
Monnie McGaffigan
Its: President, 5 Bars Communities

By: 
Kevin Muldoon
Its: VP & General Counsel, 5 Bars
Communities

Attest:

By: _____
Molly McLaughlin
City Clerk

APPROVED AS TO FORM:
Telecom Law Firm PC

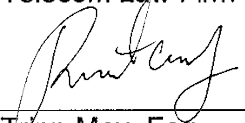

Tripp May, Esq.

EXHIBIT A

LICENSE AGREEMENT

THIS LICENSE AGREEMENT is made as of the date of the final signature below, by and between the City of Irvine, a chartered California municipal corporation, with an address at One Civic Center Plaza, Irvine, California 92623-9575 ("**Licensors**") and XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities, with an address at 19200 Von Karman Avenue, Suite 100, Irvine, California 92612 ("**Licensee**").

1. Definitions.

"**Agreement**" means this License Agreement.

"**Approvals**" means all certificates, permits, licenses and other regulatory approvals that Licensee must obtain as required by law in order for Licensee or its agents or sublicensees to use the Licensed Premises for the purpose intended by this Agreement.

"**Defaulting Party**" means the party to this Agreement that has defaulted as provided for in Section 27 of this Agreement.

"**Due Diligence Investigation**" means to (i) inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of Licensors' Property; (ii) to apply for all licenses and permits required for Licensee's use of the designated Licensors' Property from all applicable governmental or regulatory entities; (iii) to do those things on or off the designated Licensors' Property that, in the sole opinion of Licensee, are necessary to determine the physical condition of designated Licensors' Property; (iv) and the feasibility or suitability of the designated Licensors' Property for Licensee's use.

"**Harmful Interference**" means Interference (as defined in this Section 1) that endangers the functioning of a radio navigation service or other safety services, or seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the regulations of the Federal Communications Commission.

"**Hazardous Material**" means any substance which is (i) designated, defined, classified or regulated as a hazardous substance, hazardous material, hazardous waste, pollutant or contaminant under any Environmental Law, as currently in effect or as hereafter amended or enacted; (ii) a petroleum hydrocarbon, including crude oil or any fraction thereof and all petroleum products; (iii) polychlorinated biphenyls ("**PCBs**"); (iv) lead; (v) asbestos; (vi) flammable explosives; (vii) infectious materials; or (viii) radioactive materials.

"**Environmental Law(s)**" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601 *et seq.*, the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901 *et seq.*, the Toxic Substances Control Act, 15 U.S.C. §§ 2601 *et seq.*, the Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101 *et seq.*, and the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, as said laws have been supplemented or amended to date, the regulations promulgated pursuant to said laws and any other federal, state or local law, statute, rule, regulation or ordinance that regulates or proscribes the use, storage, disposal, presence, clean-up, transportation or release or threatened release into the environment of Hazardous Material.

"**Interference**" means the effect of unwanted energy due to one or a combination of emissions, radiations or inductions upon reception in a radio communication system, manifested by any performance degradation, misinterpretation or loss of information.

“**Licensed Premises**” means those portions of Licensor’s Property more particularly described and depicted in **Exhibit “A-1”** attached hereto and incorporated herein by this reference.

“**Licensee**” means XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities.

“**Licensee’s Notice Address**” means 19200 Von Karman Avenue, Suite 100, Irvine, California 92612.

“**Licensor**” means City of Irvine, a chartered California municipal corporation.

“**Licensor Facilities**” means any and all existing facilities, inclusive of, but not limited to, all buildings and improvements owned by and under the possession and control of Licensor, including but not limited to utility poles, lamp posts, other utility facilities, fences, gates, and all roof tops of all such buildings, facilities and/or improvements.

“**Licensor’s Notice Address**” means One Civic Center Plaza, Irvine, California 92623-9575.

“**Licensor’s Properties**” means those properties identified on Exhibit “A-1” (each of which is a subject of this License Agreement).

“**Non-Defaulting Party**” means the party to this Agreement that has not defaulted as provided for in Section 27 of this Agreement.

“**Release**” when used with respect to Hazardous Material includes any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing on, under or about the Licensed Premises, other Licensor’s Property or the environment.

“**Rent**” means **sixty-five percent (65%)** of recurring Sublicense Revenue receivable by Licensee from Sublicensees pursuant to a license, sublicense or other similar agreement between Licensee and a Sublicensee for a Wireless Telecommunications Facilities constructed on the Licensed Premises under or pursuant to this Agreement.

“**Sublicense Revenue**” means the total amount of rent (excluding any reimbursement from Sublicensee(s) of taxes, construction costs, installation costs, utilities or other actual, reasonable and documented expenses incurred by Licensee to the extent said reimbursement is not an offset of rent to be paid by Sublicensee(s)) payable to Licensee by all Sublicensee(s) using each of the Licensed Premises, whether pursuant to a license, sublicense or other similar agreement, as modified, renewed or assigned.

“**Sublicensee**” means a third party to which Licensee has granted the right to use and occupy of one or more of the Licensed Premises, subject to the terms and conditions contained herein.

“**Subscription Agreement**” means the Wireless Marketing Agreement between the City of Irvine and 5 Bars Communities, dated _____, 2017.

“**Wireless Telecommunications Facilities**” or “**Wireless Facilities**” means the equipment and associated structures needed to transmit and/or receive electromagnetic signals. A Wireless Telecommunications Facility typically includes antennas, supporting structures, enclosures and/or cabinets housing associated equipment, cable, access roads and other accessories.

2. **Licensor’s Cooperation.** During the Term, Licensor, in its proprietary capacity as the owner of the Licensed Premises, shall: (i) reasonably cooperate with Licensee in its efforts to obtain all of the Approvals

and (ii) take no action that would adversely affect any of the Licensed Premises. Licensor acknowledges that Licensee's ability to use each of the Licensed Premises is contingent upon Licensee obtaining and maintaining the Approvals. Additionally, Licensor authorizes Licensee and its employees, representatives, agents and consultants to prepare, and submit, file and present on behalf of Licensor building, permitting, zoning or land-use applications with the appropriate local, state and/or federal agencies necessary to obtain land use changes, special exceptions, zoning variances, conditional use permits, special use permits, administrative permits, construction permits, operation permits and/or building permits. Licensor, in its proprietary capacity as the owner of the Licensed Premises, shall not knowingly do or permit anything that will unreasonably interfere with or negate any Approvals pertaining to the Wireless Telecommunications Facility(ies) or Licensed Premises or cause them to be in nonconformance with applicable local, state or federal laws. Licensor agrees to execute such documents as may be reasonably necessary to obtain and thereafter maintain the Approvals, and agrees to be named as the applicant for said Approvals. The provisions of this Section shall not apply in the event of any dispute between and/or involving Licensor and Licensee.

3. **[intentionally omitted from this Agreement]**

4. **Term.** The term of this Agreement shall commence on _____, 2017 ("**Commencement Date**") and continue until the license for each Licensed Premises listed in Exhibit "A-1" has expired, unless earlier terminated as provided in this Agreement. The term of each license listed in Exhibit "A-1" shall begin on the commencement date listed for such Licensed Premises on Exhibit "B", and shall continue for a period not to exceed fifteen (15) years without Licensor's prior written consent, and with three (3) five (5) year options subject to the written mutual consent of the Licensor and Licensee. Licensee acknowledges that, upon the termination or expiration of any license for any Licensed Premises, Licensee shall have no further right, title or interest in such license for such Licensed Premises.

5. **Rent.**

a. **Licensee's Obligation to Pay Rent.** From and after the Commencement Date and effective upon Licensee's receipt of Sublicense Revenue or thirty (30) days after the Sublicense Revenue is due and payable to Licensee, Licensee shall pay Licensor Rent for the each of the Licensed Premises.

b. **Sublicenses.** Licensee shall exercise commercially reasonable discretion as to whether, and on what terms, to sublicense, license or otherwise allow use or occupancy of the Licensed Premises, subject to the following:

- i. Licensee shall make every reasonable effort to ensure that each proposed Wireless Telecommunications Facility will not affect, detract from or impact the operation of existing Licensor facilities or Licensor's municipal functions.
- ii. Licensee shall not interfere, or permit, allow or suffer others to interfere, with any traffic signal control and street lighting devices. Licensee shall immediately notify Licensor in the event that Licensor discovers any such interference.
- iii. Licensee shall ensure that the proposed Wireless Telecommunications Facility is not dependent on the resources dedicated to Licensor facilities, which includes without limitation electrical or telephone utilities.
- iv. Licensee shall propose new locations for Wireless Telecommunications Facilities to Licensor, and Licensor shall have the final authority to approve or reject said locations in its sole and absolute discretion.

- v. In the event of any damage to any Wireless Telecommunications Facility, Licensor shall not be obligated to repair or restore the Wireless Telecommunications Facility to normal operating conditions except to the extent that Licensor caused such damage. As between Licensee and Licensor, Licensee shall bear all other costs incurred to repair or restore Wireless Telecommunications Facilities; provided, however, the Licensee may allocate its responsibility under this sentence to a third party, including a Sublicensee, so long as such allocation does not cause any damage to go un-remediated for more than thirty (30) days (or sooner time if the damage threatens public safety).
- vi. In the event of any damage to Licensor's Properties caused by Licensee, its agents, employees, licensees, sublicensees, invitees, contractors or subcontractors, Licensee shall promptly restore Licensor facilities in a safe and efficient manner.
- vii. Licensee shall give Licensor reasonable notice (or no less than fourteen (14) days) prior to impacting Licensor facilities in a manner that is beyond the routine maintenance and operation of Wireless Telecommunications Facilities.
- viii. Any license, sublicense or other similar agreement between Licensee and any third party in connection with the Licensed Premises shall include the requirement that the Sublicensee must comply with the terms and conditions of this Agreement.
- ix. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include a provision substantially consistent with the following, relating to interference with Licensor facilities and communications systems:

Notwithstanding any other provisions this Sublicense Agreement, Sublicensee agrees to operate any and all of its Wireless Telecommunications Facilities on the Property in full compliance with the technical standards set forth in the Rules and Regulations of the Federal Communications Commission ("FCC") as codified in 47 C.F.R. or as may be otherwise required in any order or declaratory ruling adopted by the FCC and upon notice of non-compliance agree to take all steps necessary to bring its operation into full compliance. Licensee and Sublicensee both recognize and stipulate that City's public safety communications systems are vital to the life, health and safety of the public safety personnel and of members of the general public, and agree that protecting such systems against harmful interference is an integral responsibility of this Sublicense Agreement.

Licensee and Sublicensee agree to meet and confer with City on a case-by-case basis, and at the request of any Party and/or City, in the event that additions or changes to Wireless Telecommunications Facilities on the property cause incompatibilities with City's installed communications system(s).

Licensee and Sublicensee agree that in the event of harmful interference or degradation to City's public safety radio operations, City may require on a case-by-case basis that the use of the interfering Wireless Telecommunications Facility be suspended upon reasonable notice by City to Licensee and the applicable Sublicensee pending resolution of the cause and cure of such interference or degradation.

The findings of the City's communications engineering representative shall be determinant in declaring harmful interference caused by such non-compliance, and, in the event of a dispute, the burden of seeking a determination of compliance from the FCC shall be on the Sublicensee.

The meet and confer procedure shall not be invoked unless absolutely necessary.

These provisions shall be binding on Licensee, Sublicensee, and any successor, assignee or service provider designated by Licensee and/or Sublicensee.

- x. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include provisions substantially consistent with the following:

*Sublicensee shall indemnify, defend, and hold the City of Irvine and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Sublicensee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Sublicense, whether or not there is concurrent active or passive negligence on the part of City and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of City or City Personnel in connection therewith:*

(1) Sublicensee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith.

(2) Sublicensee shall promptly pay any judgment rendered against City or any City Personnel for any such claims or liabilities.

(3) In the event City and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Sublicense, Sublicensee shall pay to City any and all costs and expenses incurred by City or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees.

- xi. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include provisions substantially consistent with the following:

Without limiting Sublicensee's indemnification obligations, Sublicensee shall procure and maintain, at its sole cost and for the duration of this Sublicense, insurance coverage as provided below, against all claims for injuries against persons or damages to property which may arise from or in connection with the performance of the work hereunder by Sublicensee, its agents, representatives,

employees and/or subcontractors. In the event that Sublicensee subcontracts any portion of the work contemplated in this Sublicense, the contract between Sublicensee and such subcontractor shall require the subcontractor to maintain the same policies of insurance that the contractor is required to maintain pursuant to this Section.

The policies and amounts of insurance required hereunder shall be as follows:

*(1) **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Sublicensee's performance of this Sublicense. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Sublicensee's performance of this Sublicense; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.*

*(2) **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Sublicensee's performance of this Sublicense; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.*

*(3) **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Sublicensee providing any service in the performance of this Sublicense. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("**SCIF**") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.*

*(4) **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Sublicense and delete any exclusion that may potentially affect the work to be performed. Sublicensee shall provide to Licensor and to the*

City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy endorsements no later than five (5) business days prior to commencement of any work to be performed under this Sublicense and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all Additional Insured Endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Any deductible in excess of \$50,000 and/or self-insured retentions must be approved in writing by the City of Irvine.

Each policy shall be from a company with current A.M. Best's rating of A- VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines brokers under applicable provisions of the California Insurance Code or any federal law. Any other rating must be approved in writing by the City of Irvine.

Sublicensee shall be responsible for causing any and all Sublicensee's contractors and subcontractors in connection with this Sublicense to maintain the same types and limits of coverage in compliance with this Sublicense, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies.

- xii. Licensee shall use best efforts to maximize Rent to Licensor and shall not enter into any license, sublicense or other similar agreement that contains any terms, conditions or other provisions that are manifestly designed or intended to defeat Licensor's interest in receiving Rent from such agreement.
- xiii. Licensee shall not permit or allow any Sublicensee to deduct, withhold or offset any sums from rent or other fees payable to Licensee for any reason whatsoever.
- xiv. Except as specified in this Section 5(b), Licensor shall not unreasonably interfere with Licensee's discretion relating to the terms of sublicenses, licenses or the grants of occupancy of the Licensed Premises.

c. Accounting/Adjustments. The parties hereto acknowledge that all information needed to calculate Rent may, from time to time, not be readily available. Accordingly, the parties agree that Licensee may base Rent on Sublicensee agreements, and later make adjustments if overpayments or underpayments occur. At any time, Licensor may request that Licensee provide an accounting of the Rent in such form and content as Licensor may reasonably request.

6. **Construction, Engineering and Other Costs.**

a. Licensors shall have no financial responsibility for any planning, construction and/or engineering costs associated with the implementation of this License Agreement.

b. Licensee may recover from Sublicensee(s) taxes, construction costs, installation costs, utilities or other expenses incurred by Licensee, to the extent said reimbursement is not an offset of rent to be paid by Sublicensee(s), and such recovered sums shall not be included in the computation of Rent.

7. **Licensed Premises; Survey.** Within sixty (60) days after any construction, installation or other alteration to the Licensed Premises or the personal property thereon, Licensee shall provide Licensors with a copy of an as-built survey for each Licensed Premises, which shall depict and identify the boundaries of each Licensed Premises and any easements that relate to or affect the Licensed Premises. The description of the each Licensed Premises set forth in Exhibit "A-1" shall control in the event of any discrepancies.

8. **Access.** After the Commencement Date and after Licensee delivers to Licensors all required insurance certificates, endorsements and other documentation required under Section 13, Licensors grants to Licensee and Licensee's employees, agents, contractors, sublicensees, licensees and their employees, agents and contractors non-exclusive access to land located within Licensors's Property to Licensee, for the purpose of constructing, repairing, maintaining, replacing, demolishing and removing the facility to be located upon each Licensed Premises as necessary to obtain or comply with any Approvals, but subject to the reasonable rules and regulations that Licensors may adopt and from time to time amend upon written notice to Licensee (the "**Access License**"). Licensors shall grant to Licensee or Licensee's public utility provider a non-exclusive right-of-way in a location within the Access License and mutually acceptable to Licensors, Licensee and Licensee's public utility provider for the purpose of providing utilities to the Licensed Premises. Licensee may request and Licensors shall not unreasonably deny or withhold the granting of an alternate Utility License either to Licensee or directly to the public utility at no cost and in a location acceptable to Licensors, Licensee and the public utility. The Access Licenses and Utility Licenses (collectively, the "**Access/Utility Licenses**") shall be utilized for the purposes provided during the term of this Agreement and thereafter for a reasonable period of time necessary for Licensee to remove the Wireless Facilities.

9. **Use of Property.** The Licensed Premises and the Access/Utility Licenses shall be used for the purpose of constructing, maintaining and operating Wireless Facilities, for uses reasonably incidental thereto and for no other purposes. All Wireless Facilities shall be constructed at no expense to Licensors. All Wireless Facilities, inclusive of security fences (when permitted by Licensors), shall comply with the requirements of the City of Irvine Municipal Code and all other laws and regulations applicable thereto, and Licensee shall obtain all required and necessary governmental agency Approvals and permits. Licensee will maintain the Licensed Premises in a clean and safe condition. It is the intent of the parties that Licensee's Wireless Facilities shall not constitute a fixture. Notwithstanding the foregoing, the Scope of this Agreement shall be limited to only those Properties within the boundary containing the "Orange County Great Park" in the CITY.

10. **Removal of Obstructions.** Licensee has the right to remove obstructions from Licensors's Property, subject to Licensors's prior approval, which approval shall be requested in writing by Licensee and shall not be unreasonably withheld, conditioned or delayed by Licensors. Potential obstructions include but are not limited to vegetation, which may encroach upon, interfere with or present a hazard to Licensee's use of the Licensed Premises or the Access/Utility Licenses. Licensee shall dispose of any materials removed.

11. **Hazardous Materials.**

a. Licensee's Obligation. Licensee covenants and agrees that neither Licensee nor any of its employees, contractors, subcontractors, agents or Sublicensees shall cause or permit any Hazardous Material to

be brought upon, kept, used, stored, generated, disposed of or Released in, on, under or about the Licensed Premises or any other part of Licensors' Property, or transported to or from any Licensors' Property in violation of Environmental Laws, except that Licensee and its Sublicensees may use small quantities of Hazardous Materials as needed for routine operation, cleaning and maintenance of the Wireless Facilities that are customarily used for routine operation, cleaning and maintenance of such equipment and so long as all such Hazardous Materials are contained, handled and used in compliance with Environmental Laws. Licensee shall immediately notify Licensors if and when Licensee learns or has reason to believe any Release of Hazardous Material has occurred in, on, under or about the License Area or other Licensors' Property.

b. [intentionally omitted from this Agreement]

c. Licensee's Environmental Indemnity. If Licensee breaches any of its obligations contained in this Section 11, or if any act, omission, or negligence of Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees results in any contamination of the Licensed Premises or other Licensors' Property, or in a Release of Hazardous Material from, on, about, in or beneath any part of the Licensed Premises or other Licensors' Property, or the violation of any Environmental Law, then Licensee, on behalf of itself and its successors and assigns, shall indemnify, defend and hold harmless Licensors, including its employees, representatives, officers and agents, and their respective successors and assigns from and against any and all claims (including damages for decrease in value of the Licensed Premises or other Licensors' Property, the loss or restriction of the use of usable space in the Licensed Premises or other Licensors' Property and sums paid in settlement of claims, attorneys' fees, consultants' fees and experts' fees and related costs) arising during or after the term of this Agreement relating to such Release or violation of Environmental Laws; provided, however, Licensee shall not be liable for any claims to the extent such Release was caused by the gross negligence or willful misconduct of the Licensors or its employees, representatives, officers and agents. Licensee's indemnification obligation includes costs incurred in connection with any activities required to investigate and remediate any Hazardous Material brought onto the Licensed Premises or other Licensors' Property by Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees and to restore the Licensed Premises or other Licensors' Property to its condition prior to Licensee's introduction of such Hazardous Material or to correct any violation of Environmental Laws. Licensee specifically acknowledges and agrees that it has an immediate and independent obligation to defend Licensors and the other indemnified parties from any claim that actually or potentially falls within this indemnity provision even if the allegations supporting the claim are or may be groundless, fraudulent or false, which obligation arises at the time such claim is tendered to Licensee by the indemnified party and continues until the claim is finally resolved. Without limiting the foregoing, if Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees causes the Release of any Hazardous Material on, about, in, or beneath the Licensed Premises or other Licensors' Property, then in any such event Licensee shall, immediately, at no expense to any indemnified party, take any and all necessary actions to return the Licensed Premises or other Licensors' Property, as applicable, to the condition existing prior to the Release of any such Hazardous Materials on the Licensed Premises or other Licensors' Property or otherwise abate the Release in accordance with all Environmental Laws, except to the extent such Release was caused by the gross negligence or willful misconduct of Licensors or its employees, representatives, officers and agents. Licensee shall afford Licensors a full opportunity to participate in any discussions with regulatory agencies regarding any settlement agreement, cleanup or abatement agreement, consent decree or other compromise or proceeding involving Hazardous Material.

12. **Real Estate Taxes.** To the extent that a possessory interest is deemed created, Licensee acknowledges that notice is and was hereby given to Licensee pursuant to California Revenue and Taxation Code Section 107.6 that use or occupancy of any public property may subject the Licensee to possessory interest taxes or other taxes levied against Licensee's right to possession, occupancy or use of any public property. Licensee shall pay all applicable (federal, state, county, city, local) excise, sales, consumer use, possessory interest or other similar taxes required by law that are levied upon this Agreement or upon Licensee's services under this

Agreement. Licensee agrees to reimburse Licensor for any documented increase in real estate or personal property taxes levied against Licensor's Property that are directly attributable to the Wireless Facilities. Licensor agrees to provide Licensee any documentation evidencing the increase and how such increase is attributable to Licensee's use. Licensee reserves the right to challenge any such assessment, and Licensor agrees to cooperate with Licensee in connection with any such challenge; provided, however, that Licensee shall either pay any challenged tax or assessment or post any required bond as a prerequisite to Licensee's challenge.

13. **Insurance.** At all times during the performance of its Due Diligence Investigation and during the term of this Agreement, Licensee, at its sole expense, shall obtain and keep in force the required insurance as set forth in the attached **Exhibit "A-2"**. Licensor shall be entitled to coverage at the maximum policy limits carried by Licensee for the required insurance, which shall at no time be less than the required amounts set forth in the attached Exhibit "2" to this Agreement. The insurance provisions shall be separate and independent from the indemnification and defense provisions between the Licensee and Licensor and shall not in any way limit the applicability, scope or obligations of the indemnification defense provisions in Section 14. Neither Licensee, any Sublicensee or any party acting for them shall be permitted to exercise any rights to access Licensor's Property under this Agreement until Licensor receives copies of all insurance policies, endorsements and other documentation required under this Agreement, including without limitation Exhibit "C". Licensor's obligations under this Section 13 will survive the expiration or termination of this Agreement.

14. **Indemnification.** Licensee shall indemnify, defend, and hold Licensor and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Licensee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of Licensor and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of Licensor or City Personnel in connection therewith: (a) Licensee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith; (b) Licensee shall promptly pay any judgment rendered against Licensor or any City Personnel for any such claims or liabilities; and (3) in the event Licensor and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, Licensee shall pay to Licensor any and all costs and expenses incurred by Licensor or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees.

15. **Right to Audit.** During the term of this Agreement and for a three (3) year period after this Agreement expires or terminates, Licensee shall maintain originals, or when originals are not available copies, of all records, books, papers and documents relating to this Agreement and all accompanying agreements between Licensee and Sublicensees (subject to Licensee's right to reasonably redact such records, books, papers and documents for information other than financial information pertinent to Rent to the extent such non-Rent information is proprietary, confidential or constitute a trade secret). At all reasonable times, Licensee shall allow Licensor and its attorneys, accountants, representatives, agents or other duly authorized designee to have access to, examine and audit such records, including but not limited to access to and audit of information pertaining to the identities of the Sublicensees whom Licensee has attempted to sublicense the Licensed Premises. Licensor shall have the right to copy, carry away and disclose to others any and all records, books, papers, correspondence and other documents in connection with this Agreement to the extent that such copying, carrying away and disclosing is required by applicable laws or any judicial or administrative order.

16. **Waiver of Claims and Rights of Subrogation.** The parties hereby waive any and all rights of action for negligence against the other on account of damage to the Wireless Facilities, Licensors' Property or to the Licensed Premises resulting from any fire or other casualty of the kind covered by property insurance policies with extended coverage, regardless of whether or not, or in what amount, such insurance is carried by the parties. All policies of property insurance carried by either party for the Wireless Facilities, Licensors' Property or the Licensed Premises shall include a clause or endorsement denying to the insurer rights by way of subrogation against the other party to the extent rights have been waived by the insured before the occurrence of injury or loss.

17. **Eminent Domain.** If Licensor receives notice of a proposed taking by eminent domain of any part of the Licensed Premises or the Access/Utility Licenses, Licensor will notify Licensee of the proposed taking within five (5) days of receiving said notice and Licensee will have the option to: (i) terminate this Agreement upon written notice to Licensor; or (ii) remain in possession of that portion of the Licensed Premises and Access/Utility Licenses that will not be taken, in which event there shall be an equitable adjustment in Rent on account of the portion of the Licensed Premises and Access/Utility Licenses so taken.

18. **[intentionally omitted from this Agreement]**

19. **Sale of Property.** If during the Lease Term, Licensor sells all or part of Licensor's Property, of which the Licensed Premises is a part, then such sale shall be subject to this Agreement.

20. **Surrender of Property.** Upon expiration or termination of this Agreement, Licensee shall, within a reasonable time (but not more than 90 days), remove all above and below ground Wireless Facilities and restore the Licensed Premises to its original condition, normal wear and tear excepted, free of debris and hazards, and free and clear of all liens and encumbrances without, however, being required to replace any trees or other plants removed or alter the then existing grading.

21. **Recording.** To the extent that this Agreement covers any Licensor's Property outside the public rights-of-way, Licensee shall have the right to record a memorandum, in a form reasonably acceptable to both Licensor and Licensee, of the Agreement with the County of Orange Recorder's Office. Licensor shall execute and deliver each such memorandum, for no additional consideration, promptly upon Licensee's request. Licensee shall be solely responsible for all costs associated with recording any such memorandum.

22. **Licensor's Covenant of Title.** Licensor covenants that Licensor holds good and marketable fee simple title to Licensor's Property and each of the Licensed Premises, and Licensor has full authority to enter into and execute this Agreement. Licensor further covenants that there are no encumbrances or other impediments of title that might unreasonably interfere with or be adverse to Licensee.

23. **Interference with Licensee's Business.** Licensee shall have the exclusive right to construct, install and operate Wireless Telecommunications Facilities that emit radio frequencies on Licensor's Property that contains the Licensed Premises. Licensor agrees that it will not permit the construction, installation or operation on Licensor's Property that contains the Licensed Premises of (i) any additional wireless telecommunications facilities or (ii) any equipment or device that interferes with Licensee's use of the Licensed Premises for a Wireless Telecommunications Facility; provided, however, that the limitations in this Section 23 shall not be applicable to wireless telecommunication facilities, equipment or devices installed by the City of Irvine in connection with municipal and/or public safety purposes. Each of the covenants made by Licensor in this Section is a covenant running with the land for the benefit of the Licensed Premises.

24. **Quiet Enjoyment.** Licensor covenants that Licensee, on paying Rent and performing the covenants of this Agreement, shall peaceably and quietly have, hold and enjoy the Licensed Premises and Access/Utility Licenses.

25. **Mortgages.** This Agreement, Licensee's interest in the Licensed Premises and the Access/Utility Licenses shall be subordinate to any mortgage given by Licensor which currently encumbers the Licensed Premises, provided that any mortgagee shall recognize the validity of this Agreement in the event of foreclosure. In the event that the Licensed Premises is or shall be encumbered by such a mortgage, Licensor shall obtain and furnish to Licensee a mutually agreed upon non-disturbance agreement for each such mortgage, in recordable form. The cost to obtain such non-disturbance agreement shall be paid by Licensee if the mortgage or other encumbrance predates this Agreement.

26. **Title Insurance.** Licensee, at Licensee's option, may obtain title insurance on each of the Licensed Premises and Access/Utility Licenses outside the public rights-of-way at Licensee's sole cost and expense. Licensor shall reasonably cooperate with Licensee's efforts to obtain title insurance by executing documents or obtaining requested documentation as required by the title insurance company.

27. **Default.**

a. Notice of Default; Cure Period. If there is a default by Defaulting Party with respect to any of the provisions of this Agreement or the Defaulting Party's obligations under this Agreement, the Non-Defaulting Party shall give the Defaulting Party written notice of such default. After receipt of such written notice, the Defaulting Party shall have thirty (30) days in which to cure any monetary default and sixty (60) days in which to cure any non-monetary default. The Defaulting Party shall have such extended periods as may be required beyond the sixty (60) day cure period to cure any non-monetary default if the nature of the cure is such that it reasonably requires more than sixty (60) days to cure, and the Defaulting Party commences the cure within the sixty (60) day period and thereafter diligently pursues the cure to completion. The Non-Defaulting Party may not maintain any action or effect any remedies for the default against the Defaulting Party unless and until the Defaulting Party has failed to cure the same within the time periods provided in this Section.

b. [intentionally omitted from this Agreement]

c. [intentionally omitted from this Agreement]

d. No Consequential Damages. Without limiting any indemnification obligations of Licensor or Licensee or other waivers contained in this Agreement and as a material part of the consideration for this Agreement, Licensor and Licensee fully release, waive and discharge forever any and all claims against the other for consequential and incidental damages arising out of this Agreement, including without limitation any lost profits arising from the disruption to Wireless Telecommunications Facilities, any interference with uses conducted by Licensee under this Agreement, regardless of the cause, and whether or not due to the active or passive negligence or willful misconduct, and covenants not to sue for such damages the other party or their respective employees, directors, officers, officials or agents.

28. **Force Majeure.** If an event or condition constituting a "force majeure"—including, but not limited to, an act of God, labor dispute, civil unrest, epidemic, or natural disaster—prevents or delays either the Licensor or the Licensee from performing or fulfilling an obligation under this Agreement, said party is not in default, under Section 27 of this Agreement, of the obligation. A delay beyond a party's control automatically extends the time, in an amount equal to the period of the delay, for the party to perform the obligation under this Agreement. Licensor and Licensee shall prepare and sign an appropriate and mutually acceptable document acknowledging any extension of time under this Section 28.

29. **Applicable Law.** This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State where the Licensed Premises is located. The parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange.

30. **Assignment, Sublease, Licensing and Encumbrance.** Licensee may assign this Agreement to a person or entity with demonstrated capacity to carry out Licensee's obligations under this Agreement, subject to Licensors' prior written consent, which shall not be unreasonably withheld or delayed. Subject to the terms and conditions in this Agreement and Licensors' prior written consent, which Licensors shall not be entitled to condition on any additional monetary consideration, Licensee may enter into sublicenses to allow a Sublicensee to utilize and operate from the Licensed Premises, so long as such Sublicensee is a provider of services that utilize Wireless Telecommunications Facilities.

31. **Miscellaneous.**

a. Entire Agreement. Licensors and Licensee agree that this Agreement, together with that certain Wireless Marketing Agreement dated _____, 2017 between Licensors and Licensee, contain all of the agreements, promises and understandings between Licensors and Licensee with regard to the Licensed Premises. No oral agreements, promises or understandings shall be binding upon either Licensors or Licensee in any dispute, controversy or proceeding at law. Any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing and signed by the parties hereto.

b. Captions. The captions preceding the Sections of this Agreement are intended only for convenience of reference and in no way define, limit or describe the scope of this Agreement or the intent of any provision hereof.

c. Construction of Document. Licensors and Licensee acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said party being the drafter and that this Agreement shall not be construed as a binding offer until signed by Licensee. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

d. Notices. All notices hereunder shall be in writing and shall be given by (i) established national courier service which maintains delivery records, (ii) hand delivery, or (iii) certified or registered mail, postage prepaid, return receipt requested. Notices are effective upon receipt, or upon attempted delivery if delivery is refused or if delivery is impossible because of failure to provide reasonable means for accomplishing delivery. The notices shall be sent to Licensors at Licensors' Notice Address and to Licensee at Licensee's Notice Address.

e. Partial Invalidity. If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

f. IRS Form W-9. Licensors agree to provide Licensee with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Licensee. In the event that Licensors' Property is transferred, the succeeding Licensors shall have a duty at the

time of such transfer to provide Licensee with a completed IRS Form W-9, or its equivalent, and other related paper work to effect a transfer in Rent to the succeeding Licensor. Licensor's failure to provide the IRS Form W-9 within thirty (30) days after Licensee's request shall be considered a default and Licensee may take any reasonable action necessary to comply with IRS regulations including, but not limited to, withholding applicable taxes from Rent payments.

g. Attorneys' Fees. In the event that either party prevails in an action to enforce its rights under this Agreement, the prevailing party shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action.

h. Survival. Expiration or earlier termination of this Agreement will not affect the right of either party to enforce any and all indemnities and representations and warranties given or made to the other party under this Agreement, or any provision of this Agreement that expressly survives termination or expiration, or by its sense or context contains an obligation that either should survive expiration or termination or would necessarily be performed after expiration or termination.

i. Waivers. No failure by either party to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by Licensor of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of Licensor's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either party of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A party's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting party's consent in any other or future instance under the terms of this Agreement.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, Licensor and Licensee having read the foregoing and intending to be legally bound hereby, have executed this Agreement as of the day and year this Agreement is fully executed.

“LICENSOR”
City of Irvine,
a chartered California municipal corporation

Date: _____

By: _____

Title: _____

ATTEST:

APPROVED AS TO FORM:

“LICENSEE”
XG COMMUNITIES, LLC,
a Delaware limited liability company,
dba 5 BARS COMMUNITIES

Date: _____

By: _____

Title: _____

APPROVED AS TO FORM:

EXHIBIT “A-1”

LICENSED PREMISES & LICENSOR’S PROPERTY

EXHIBIT "A-2"

INSURANCE REQUIREMENTS

Without limiting Licensee's indemnification obligations, Licensee shall procure and maintain and shall cause all contractors, subcontractors and Sublicensees to procure and maintain (Licensee and/or sublicensees shall be referred to hereinafter, as the context dictates, as "**Contractor**"), prior to any activities on Licensor's Property in connection with the Agreement, for the duration of the Agreement and any applicable sublicense entered into under and/or pursuant to the Agreement, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Licensee, a sublicensee, its agents, representatives, or employees as provided below:

Insurance Coverage Required

The policies and amounts of insurance required hereunder shall be as follows:

1. **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Contractor's performance of this Agreement. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (1) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
2. **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
3. **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Contractor providing any service in the performance of this Agreement. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("SCIF") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.
4. **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Agreement and delete any exclusion that may

potentially affect the work to be performed. Contractor shall provide to Licensor and to the City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy endorsements no later than five (5) business days prior to commencement of any work to be performed under this Agreement and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by Licensor. At the option of Licensor, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects Licensor, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The Licensor, its officers, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to Licensor, its officers, officials, employees or volunteers.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects Licensor, its officers, employees and volunteers. Any insurance or self-insurance maintained by Licensor, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to Licensor, its officers, officials, employees or volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to Licensor.
6. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all additional insured endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Acceptability for Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines brokers under applicable provisions of the California Insurance Code or any federal law, unless otherwise acceptable to Licensor.

Verification of Coverage

Contractor shall furnish Licensor with original endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by Licensor. All endorsements are to be received and approved by Licensor before work commences. As an alternative to Licensor's forms, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.

Subcontractors

5 BARS shall be responsible for causing any and all contractors and subcontractors in connection with this Agreement to maintain the same types and limits of coverage in compliance with this Agreement, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

EXHIBIT B

RIGHT OF ENTRY AGREEMENT

This Right of Entry Agreement (this “**Agreement**”) is made as of the date of the final signature below, by and between the City of Irvine, a chartered California municipal corporation, with an address at One Civic Center Plaza, Irvine, California 92623-9575 (“**Grantor**”) and 5 Bars Communities a dba of XG Communities, LLC, a Delaware limited liability company, with an address at 19200 Von Karman Avenue, Suite 100, Irvine, CA 92612 (“**Grantee**”). Grantor and Grantee are sometimes collectively referred to as “**Parties**” or individually as “**Party**.”

RECITALS

- A. Grantor is the fee owner of record of that certain real property within the boundary containing the “Orange County Great Park” in the CITY (the “**Property**”).
- B. Grantor and Grantee have entered into that certain Wireless Marketing Agreement dated _____, 2017 (“**Marketing Agreement**”) pursuant to which Grantee has agreed to provide certain consulting, marketing and management services relating to the placement of Wireless Telecommunications Facilities on some of the Property.
- C. Subject to the terms and conditions in the Marketing Agreement, which includes without limitation Grantee’s delivery of all required insurance certificates, endorsements and other documentation, Grantor and Grantee have agreed to enter into this Agreement so that Grantee may enter upon the Property, upon 24-hour written notice to Grantor, to inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of the Property, to apply for and obtain all licenses and permits required for Grantee’s use of the designated Property from all applicable governmental or regulatory entities, and to do those things on or off the designated Property that are reasonably necessary to determine the physical condition of designated Property, the environmental history of the designated Property, and the feasibility or suitability of the designated Property for Grantee’s use (“**Due Diligence Investigation**”).

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions contained herein, and other good and valuable consideration, the receipt and sufficiency of which is acknowledged by each of the Parties, the Parties agree as follows:

AGREEMENT

- Right of Entry.** Subject to the terms and conditions in this Agreement and the Marketing Agreement, Grantor hereby grants to Grantee and its agents, employees, contractors, subcontractors and volunteers non-exclusive permission to enter over and across, as well as to temporarily use the Property, as is reasonable and necessary, for the express and sole purpose of conducting, at Grantee’s sole expense, the Due Diligence Investigation.
- Term.** The right of entry granted pursuant to Section 1, above, shall be for a limited term, commencing as of the date of this Agreement and expiring upon the expiration or earlier termination of the Marketing Agreement.
- Entry at Own Risk; No Duty to Warn.** Grantee and its agents, employees, contractors, subcontractors and volunteers shall access, enter and use the Property at their own risk and peril. Grantor shall have no duty to inspect the Property (or any portion thereof) and no duty to warn of any latent or patent defect, condition or risk which may exist on the Property.

4. **Liens.** Grantee shall not permit to be placed against the Property, or any part thereof, any mechanics', materialmen's, contractors' or other liens (collectively, "**Liens**") arising out of the acts or omissions of the Grantee or its agents, employees, contractors, subcontractors or volunteers hereunder. Grantee shall inform each and every contractor and material supplier that provides any work, service, equipment or material to Grantee in any way connected with Grantee's use of the Property that the Property is public property and is not subject to mechanics' liens or stop notices for equipment or other materials or services provided for the Due Diligence Investigation. Grantee hereby indemnifies and agrees to hold the Grantor and the Property free and harmless from all liability for any and all such Liens, together with all costs and expenses, including, but not limited to, attorneys' fees and court costs reasonably incurred by Grantor in connection therewith. In the event that any Liens are placed on the Property, Grantee shall, at Grantee's sole cost and expenses, remove or cause the removal of all such Liens within.

5. **Hazardous Substances.** Grantee and its agents, employees, contractors, subcontractors and volunteers shall not use, store or transport or allow the use, storage or transportation of any substance which is designated, defined, classified or regulated as a hazardous substance, hazardous material, hazardous waste, pollutant or contaminant under any environmental law, as currently in effect or as hereafter amended or enacted; a petroleum hydrocarbon, including crude oil or any fraction thereof and all petroleum products; polychlorinated biphenyls ("**PCBs**"); lead; asbestos; flammable explosives; infectious materials; or radioactive materials (collectively, "**Hazardous Materials**") on or onto the Property. If Grantee breaches any of its obligations contained in this Section 5, or if any act, omission, or negligence of Grantee or any of its employees, contractors, subcontractors or agents results in any contamination of the Property, or in any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing on, under or about Property or the environment ("**Release**") of Hazardous Material from, on, about, in or beneath any part of the Property, or the violation of any environmental law, then Grantee, on behalf of itself and its successors and assigns, shall indemnify, defend and hold harmless Grantor, including the its employees, representatives, officers and agents, and their respective successors and assigns from and against any and all claims (including damages for decrease in value of the Property, the loss or restriction of the use of usable space in the Property and sums paid in settlement of claims, attorneys' fees, consultants' fees and experts' fees and related costs) arising during or after the Term of this Agreement relating to such Release or violation of environmental laws; provided, however, Grantee shall not be liable for any claims to the extent such Release was caused by the gross negligence or willful misconduct of the Licensor or its employees, representatives, officers and agents. Grantee's indemnification obligation includes costs incurred in connection with any activities required to investigate and remediate any Hazardous Material brought onto the Property by Grantee or any of its employees, contractors, subcontractors or agents and to restore the Property to its condition prior to Grantee's introduction of such Hazardous Material or to correct any violation of environmental laws. Grantee specifically acknowledges and agrees that it has an immediate and independent obligation to defend Grantor and the other indemnified parties from any claim that actually or potentially falls within this indemnity provision even if the allegations supporting the claim are or may be groundless, fraudulent or false, which obligation arises at the time such claim is tendered to Grantee by the indemnified party and continues until the claim is finally resolved. Without limiting the foregoing, if Grantee or any of its employees, contractors, subcontractors or agents causes the Release of any Hazardous Material on, about, in, or beneath the Property, then in any such event Grantee shall, immediately, at no expense to any indemnified party, take any and all necessary actions to return the Property, as applicable, to the condition existing prior to the Release of any such Hazardous Materials on the Property or otherwise abate the Release in accordance with all environmental laws, except to the extent such Release was caused by the gross negligence or willful misconduct of Grantor or its employees, representatives, officers and agents. Grantee shall afford Grantor a full opportunity to participate in any discussions with regulatory agencies regarding any settlement agreement, cleanup or abatement agreement, consent decree or other compromise or proceeding involving Hazardous Material.

6. **Restoration of the Property.** Grantee shall, at its own cost and expense, restore the Property to the same condition in which it was prior to Grantee's entry. In the event that Grantee's Due Diligence Investigation continues for more than one (1) day, Grantee shall not leave the Property in an unsafe condition.

7. **Indemnification by Grantee.** Grantee shall indemnify, defend, and hold Grantor and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Grantee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of Grantor and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of Grantor or City Personnel in connection therewith: (a) Grantee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith; (b) Grantee shall promptly pay any judgment rendered against Grantor or any City Personnel for any such claims or liabilities; and (3) in the event Grantor and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, Grantee shall pay to Grantor any and all costs and expenses incurred by Grantor or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees. Notwithstanding the foregoing, Grantee shall have no obligation to indemnify Grantor for claims related to the gross negligence or willful misconduct of Grantor.

8. **Authority to Execute.** Grantor(s) warrants and represents to Grantee that he/she/it/they is/are the sole owner(s) of the Property and may execute and approve this Agreement and no permission or consent of any other person is required to approve this Agreement, or that any such permission or consent has been obtained.

9. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

10. **Entire Agreement.** This Agreement and the Marketing Agreement contain the entire agreement between the Parties. No representations or covenants of any kind other than those expressly contained herein and in the Marketing Agreement have been made by either party hereto. This Agreement may only be modified or amended by an agreement in writing duly executed and delivered by each of the parties hereto.

11. **Severability.** If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

12. **Permits.** Prior to beginning any Due Diligence Investigation, Grantee, at its sole expense, shall obtain all necessary permits to conduct the Due Diligence Investigation.

13. **All Expenses To Be Borne by Licensee.** Grantee shall bear any and all costs and expenses associated with the rights granted to Grantee to conduct the Due Diligence Investigation, or any costs or expenses incurred by Grantor relating to Grantee's use of the Property in the performance of the Due Diligence Investigation.

14. **Hours of Operation.** The hours of operation that Grantee shall be permitted to conduct its Due Diligence Investigation shall be between 7 am and 5 pm, Monday through Friday. No weekend work shall be permitted.

15. **Governing Law; Venue; Attorneys' Fees.** This Agreement shall be governed in accordance with the laws of the State of California. The Parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange. In the event that either Party prevails in an action to enforce its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action

16. **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original and which together shall constitute a single agreement.

17. **Waivers.** No failure by either Party to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by Grantor of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of Grantor's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either Party of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A Party's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting Party's consent in any other or future instance under the terms of this Agreement.

18. **Construction of Document.** Grantor and Grantee acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said Party being the drafter. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

19. **Insurance.** Prior to commencing any Due Diligence Investigation on the Property, Grantee shall deliver to Grantor all insurance certificates, endorsements and other documentation required under the Marketing Agreement. Notwithstanding anything in this Agreement or the Marketing Agreement to the contrary, Grantee shall have no right to enter any Property or conduct any activities on any Property until and unless Grantee performs its obligations under this Section 19.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date first set forth above.

“GRANTOR”
City of Irvine,
a chartered California municipal corporation

Date: _____

By: _____

Title: _____

ATTEST:

APPROVED AS TO FORM:

“GRANTEE”
XG COMMUNITIES, LLC,
a Delaware limited liability company,
dba 5 Bars Communities

Date: _____

By: _____

Title: _____

APPROVED AS TO FORM:

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting 5 BARS' indemnification obligations, 5 BARS shall procure and maintain and shall cause all contractors, subcontractors and Sublicensees to procure and maintain (5 BARS and/or sublicensees shall be referred to hereinafter, as the context dictates, as "**Contractor**"), prior to any activities on City Property in connection with the Agreement, for the duration of the Agreement and any applicable sublicense entered into under and/or pursuant to the Agreement, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the 5 BARS, a sublicensee, its agents, representatives, or employees as provided below:

Insurance Coverage Required

The policies and amounts of insurance required hereunder shall be as follows:

1. **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Contractor's performance of this Agreement. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (1) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
2. **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
3. **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Contractor providing any service in the performance of this Agreement. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("SCIF") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.
4. **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Agreement and delete any exclusion that may potentially affect the work to be performed. Contractor shall provide to Licensor and to the City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy

endorsements no later than five (5) business days prior to commencement of any work to be performed under this Sublicense and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City, its officers, officials, employees or volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.
6. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all additional insured endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Acceptability for Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines

brokers under applicable provisions of the California Insurance Code or any federal law, unless otherwise acceptable to the City.

Verification of Coverage

Contractor shall furnish the City with original endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by the City. All endorsements are to be received and approved by the City before work commences. As an alternative to the City's forms, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.

Subcontractors

5 BARS shall be responsible for causing any and all contractors and subcontractors in connection with this Agreement to maintain the same types and limits of coverage in compliance with this Agreement, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

EXHIBIT “D”

ADDITIONAL SERVICES TO BE PROVIDED BY 5 BARS

Inventory of Existing sites by Carrier at the Orange County Great Park (within 60 days of commencement).

- Develop a database and base map with carrier, address and geo-coordinates, project description, date of approved, type of facility, pictures of existing site, link to resolution (conditions of approval) or letter approving the site.

Inventory of City-owned Property at the Orange County Great Park (within 60 days of commencement).

- Develop a database and a base map of potential wireless facility sites. Database to include: individual sites, description of site, suitability for wireless facility, type of potential wireless facility, and description of potential issues.
- Develop a process for reviewing and approving sites, including leasing criteria, design standards, and public review procedures.

Develop Master Plan and Evaluate Cellular Opportunities at the Orange County Great Park

- Develop a process for reviewing and approving criteria for collocation or modification of service facilities.
- Develop proposed aesthetic threshold levels for equipment that would be used in the proposed strategy to guide the approval process (e.g. administrative approval versus public hearing).
- Provide guidelines for reviewing carrier and network proposals for equipment placement.
- Recommend a process to handle third party operator site leasing and locating.
- Analyze the advantages and disadvantages of the various business models used to deploy and manage wireless infrastructure and make a recommendation.
- Potential business options should include the City-owned and managed, privately-owned and managed, and City-private partnership (hybrid) models.

Technological Solutions for Future Wireless Network in Public ROW (within 90 days of commencement).

- Prepare an inventory of streetlights, traffic signals or other vertical elements in the ROW.
- Prepare an inventory of underground fiber and conduit.
- Prepare a technical analysis/feasibility study of potential ownership models for streetlights (e.g. SCE, City, third party, or combination) and assist the City in negotiations to acquire SCE streetlights or other vertical elements in the ROW.
- Prepare a technical analysis/feasibility study of using existing infrastructure and fiber to enhance wireless communication.
- Analyze the advantages and disadvantages of the various business models used to deploy and manage wireless infrastructure and make a recommendation. Potential business options. This should include the City-owned and managed, privately owned and managed, and City-private partnership (hybrid) models.

All technical analysis should account for the future sizing/scaling of the network to minimize community disruption. The plan analysis should also account for phasing-in or phasing-out of wireless facilities when

technological advances occur.

Zoning Ordinance Amendments for ROW facilities.

- Develop proposed design standards including:
 - maximum pole heights and diameters;
 - maximum size of antenna panels and radomes;
 - location of radio equipment;
 - location of meter pedestals or standards to require flat rate power or pole-mounted meters to discourage new meter pedestals;
 - colors and materials to match surrounding poles;
 - underground cabling requirements;
 - measures to preclude exposed wires; and
 - ground-vault standards, including above-ground vent standards.

Changes to City Application Requirements/Procedures/Application Forms/Intake Procedures

- Develop proposed standardized application forms/lease agreements. Documents should cover:
 - liability;
 - rights of access;
 - traffic control measures;
 - hours of operation for construction and maintenance;
 - fees;
 - insurance Requirements;
 - terms; and
 - measures to re-open when new micro-scale technologies become available.

Optional Fiber Master Plan Services

At the City's option, and subject to the terms and conditions in this section, 5 Bars shall perform the following tasks:

- **Develop Master Plan and Evaluate Cellular and Wi-Fi Opportunities at the Orange County Great Park**
 - Evaluate current and future wireless infrastructure requirements to support cellular communications, Wi-Fi communications, and future technologies.
 - Develop wireless security and reliability criteria.
 - Develop an implementation strategy with cost estimates to maintain and expand capabilities.
 - Evaluate and identify opportunities for future wireless needs.
 - Propose alternative technologies/options and highlight strengths and weaknesses.
 - Develop a master plan for Cellular and Wi-Fi.
- **Evaluate Network Infrastructure at the Orange County Great Park**
 - Evaluate current and future network infrastructure requirements.
 - Evaluate existing infrastructure and recommend design enhancements based on future needs and new technologies.
 - Develop network security and reliability criteria.
 - Develop an implementation strategy with cost estimates to maintain and expand capabilities.
 - Evaluate and recommend network hardware and software.

- Assess the existing fiber infrastructure and recommend enhancements based current requirements and future growth.
- Develop a master plan for Network Infrastructure.

The City may elect to require 5 Bars to perform all or some of the foregoing tasks by written notice to 5 Bars (the “**Notice**”). Within 90 days after 5 Bars receives the Notice, 5 Bars shall submit a written proposal to the City that outlines (i) the tasks to be performed, (ii) the persons or entities that will perform such tasks, and (iii) the total cost to complete such tasks. Upon the City’s written approval of 5 Bars’ written proposal, 5 Bars shall perform or cause the performance of the foregoing tasks within 180 days from the City’s written notice (or such longer period as the City may approve in writing). The City shall have 30 days to inspect the work product delivered by 5 Bars and either accept, reject or require changes to the same.

5 Bars shall pay all costs associated with the foregoing tasks; provided, however, that 5 Bars shall be entitled to keep an additional 10% of recurring gross payments that are received by 5 BARS that would be otherwise payable to the City until 5 Bars recoups its actual, reasonable, documented and City-approved costs to perform the tasks requested by the City. In the event that recurring gross payments are insufficient to recoup the costs associated with the foregoing tasks, the City shall directly reimburse 5 Bars for the balance of its actual, reasonable, documented and City-approved costs to perform the tasks requested by the City within 24 months after the City approves the work product delivered by 5 Bars. In any case, the parties shall memorialize the reimbursement arrangement in a separate writing.

2.5




REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: AWARD OF CONTRACT FOR WIRELESS MARKETING AND MANAGEMENT SERVICES



Director of Administrative Services



City Manager

RECOMMENDED ACTION

1. Approve and authorize the City Manager to execute a contract with 5 BARS Communities, LLC for wireless marketing and management services and subsequent sublicenses.
2. Approve a budget adjustment to appropriate \$150,000 in the General Fund for a wireless infrastructure master plan funded from future lease revenue.

EXECUTIVE SUMMARY

On April 25, 2017, City Council directed staff to open negotiations with 5 BARS Communities, LLC (5 BARS) for wireless marketing services citywide and at the Great Park due to an immediate need to protect the City's proprietary interests in light of pending regulatory and legislative changes. Due to a conflict of interest with Rutan & Tucker, LLP, the City engaged Telecom Law Firm PC (Telecom) to assist with negotiations and contracting with 5 BARS. Staff has concluded negotiations with 5 BARS and presents the proposed Citywide Wireless Marketing Agreement (Agreement) for consideration. A separate agreement for the Great Park's wireless facilities is being presented to the Great Park Board for consideration. The two agreements were separated due to distinct funding sources and approval processes for Great Park Fund and General Fund contracting based on the rules established by Measure V, the Great Park Fiscal Transparency and Reforms Act.

Highlights of the Agreement are:

- Services provided by 5 BARS:
 - Conduct a Radio Frequency (RF) study
 - Prepare an inventory of potential City assets for leasing to 5 BARS and sublicensing to third parties for wireless communications purposes
 - Develop a marketing plan for City assets
 - Develop cellular facility design standards for City review and approval

- Provide, at the City's option, certain add-on services for cellular, Wi-Fi and fiber optics master planning for the City
- Costs to the City:
 - No up-front costs for services
 - Add on services, such as cellular, Wi-Fi and fiber optics master planning paid from City's share of gross revenues derived from licenses and sublicenses
- Term:
 - 5 year initial term with four 5-year optional renewal periods for a maximum term of 25 years
- Revenue Share:
 - 65 percent City and 35 percent 5 BARS for new wireless facilities on City assets
 - 75 percent City and 25 percent 5 BARS for each additional wireless facility sublicense added to City assets
 - 80 percent City and 20 percent 5 BARS for managing existing wireless facility agreements on City property
 - 5 BARS retains compensation rights for the term of the new licenses and sublicenses, even after the Agreement ends
- Control of City Assets:
 - City retains the right to determine which City-owned property is marketed, including the right to make adjustments to approved marketing asset lists
 - City has final approval on rental amounts
 - All agreements will be subject to conditions that require 5 BARS and related third parties to respect the City's municipal functions in connection with the City's assets (e.g., street lighting operations, traffic signal maintenance, right-of-way maintenance, City communications equipment)
 - City may terminate Agreement with 90-day notice
- Liability
 - City's standard insurance and indemnification provisions
 - If marketing plan is terminated or insufficient revenue is generated, the City is responsible for cost of add-on services

While there are no guarantees that this Agreement will preserve the City's proprietary interests in its assets, it is the best attempt to carry out the City Council's stated objective to maximize local control over proprietary assets while encouraging and accelerating the deployment of advanced communications technologies for the City's residents, businesses, and visitors. The Agreement also contemplates providing a wireless infrastructure master plan, originally sought through the Request for Proposals for wireless and telecommunication consulting services, to be paid from the City's portion of the Revenue Share. The proposed budget adjustment of \$150,000 appropriates the amount for the master plan to be paid from future revenues.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable in light of the fact that the City Council previously deliberated on the policy matter and provided direction to staff.

ANALYSIS

On April 25, 2017, staff brought for consideration an award of contract and budget adjustment for wireless and telecommunication consulting services. The City Council, on a 3-1-1 vote (Mayor Pro Tem Schott voted no; Councilmember Lalloway absent), cancelled the Request for Proposals (RFP) and directed staff to begin negotiating with 5 BARS for wireless marketing services as a sole source contract. Due to a conflict of interest with the City Attorney's Office, Rutan & Tucker, LLP, staff contracted with Telecom to assist with negotiations and contracting. Telecom has specific expertise in wireless facilities and has advised the City on many previous telecommunication-related matters.

The Agreement (Attachment 1) carries out the intent of the motion. The final Agreement includes several exhibits. Of specific importance is the license agreement (Exhibit A to the Agreement). Combined, the Agreement and license agreement provide the authority for 5 BARS to market and manage City assets. The license agreement authorizes 5 BARS to enter into sublicenses for the City's benefit, subject to specific limitations in the areas of interference, insurance, indemnification, and coordination with municipal functions. To ensure the delivery of a strategic comprehensive plan and maximize the benefit to the City, a master plan is included as Additional Services, to assist the City in fulfilling the original intent of the RFP.

Services

Once the Agreement is executed, 5 BARS will conduct a radio frequency (RF) study to identify the current state of wireless coverage within the City. This will allow 5 BARS to identify wireless provider needs, and help identify potential new sites for wireless telecommunication facilities to address those needs. This will take 90 days.

In addition to benchmarking and identifying assets, 5 BARS will develop a marketing plan and actively market City assets to wireless providers. 5 BARS will execute license agreements with the City and wireless provider sublicenses with the City's approval.

Additional Services

With each carrier needing their own individual sites, fiber optic, and supporting infrastructure, an uncoordinated process will lead to inefficient use of assets, duplicative construction, and detrimental impacts on City infrastructure. 5 BARS will, at the City's request and approval, undertake a cellular, fiber optic, and infrastructure master plan to meet the competing demands for the City finite assets and minimize service disruption caused by uncoordinated construction deployments. These services are described in Exhibit D of the Agreement. 5 BARS and the City will mutually agree on the scope, cost and timeframe for such studies prior to commencement. Staff estimates the total cost for the master plan to be \$150,000.

The cost of Additional Services will be paid from a portion of the City's recurring revenue share, such that 5 BARS will be able to recoup its out-of-pocket costs for the add-on services over time. If the revenue share is insufficient to cover these expenses, or the Agreement is terminated prior to these services being paid for, the City will be liable for the remaining cost of the services. A budget adjustment is needed to appropriate the expenditure and the corresponding lease revenue.

Costs

The City will bear no up-front cost for any services. The RF study, inventory, marketing and leasing/licensing services will be paid for through the Revenue Share provisions of the Agreement. 5 BARS will be entitled to their portion of the Revenue Share for the term of the license agreements they implement. The costs of Additional Services will be paid from the City's revenue share, unless the City share is insufficient to cover the cost, in which case the City will be responsible for payment.

Revenue

The City will receive the majority of lease payments via a revenue share plan. There are three levels of revenue share: for new facilities, collocations to new facilities and for existing facilities. For new facilities procured by 5 BARS, the City will receive a 65 percent share and 5 BARS will receive a 35 percent share of lease revenues. For collocations to such new facilities procured by 5 BARS, the City will receive a 75 percent share and 5 BARS will receive a 25 percent share. For existing wireless facility leases that 5 BARS manages, the City will receive an 80 percent share and 5 BARS will receive a 20 percent share. All compensation due to the City is payable within 30 days after receipt by 5 BARS and subject to a late penalty. 5 BARS will be responsible to provide written annual reports containing summary information on all licenses, revenues and assets pertaining to the Agreement.

Control

While 5 BARS will make recommendations for the marketing of City Assets, the City will retain the right to determine which assets are marketed. The City will also retain the right to determine lease/license amounts, and reject proposed agreements that would be detrimental to the City's best interests. Once a license is entered into, 5 BARS will be entitled to its share of revenue for the life of the license, even if the Agreement ends. The City has the right to terminate the Agreement with a 90-day notice, and 5 BARS has the right to appeal any such termination to the City Council. The City may also lease or license its own assets and add or withdraw assets from the inventory of 5 BARS authorized assets.

Liability

The City will have no liability to pay 5 BARS any upfront costs for any services. The City will have the obligation to pay for any pre-approved add-on services from its share of the revenue; provided, however, that if the revenue is insufficient the City will be obligated to directly pay for the services. General City insurance and indemnification provisions are included in the Agreement, licenses and sublicenses.

Update on Pending State Legislation and Impact on the Proposed Agreement

SB 649 (Hueso), which would define “small cells” as a permitted use not subject to discretionary review, require cities and counties to grant access to municipal property, and would mandate the rates, terms and conditions. This bill is currently pending before the State Assembly Committee on Appropriations. So far the bill has passed through two Assembly committees with amendments attached that will need to be approved by the Senate before it can be presented to the Governor. If the bill passes into law in this legislative session, its provisions would most likely take effect on January 1, 2018.

SB 649 contains a “grandfathering clause” that preserves agreements between local governments and wireless providers entered into prior to the bill's effective date. The proposed Agreement with 5 BARS, and any subsequent sublicenses between 5 BARS and wireless providers entered prior to the effective date, would be “grandfathered in” and therefore not subject to state-mandated rates, terms, and conditions under SB 649.

The following considerations are noteworthy regarding the grandfathering clause:

- **Loophole:** The grandfathering clause contains a loophole in which agreements that can be terminated may be re-entered under the state-mandated rates, terms and conditions. Accordingly, if the proposed Agreement or any sublicenses are terminated for any reason, SB 649 would become applicable to the sites covered by the proposed Agreement and any related sublicenses.
- **City Assets Covered by the Proposed Agreement:** The marketing, licensing, and administrative services component in the proposed Agreement covers only those City assets that the City identifies as available for marketing by 5 BARS, and then agrees to license to 5 BARS, who will then sublicense the assets to wireless providers. Although there is some speculation that the grandfathering clause would extend to all the City's assets, the more conservative view is that the grandfathering provision would most likely be applicable only to those assets the City actually licenses to 5 BARS. Accordingly, assets not licensed to 5 BARS may still be subject to SB 649 even if the City enters into the proposed Agreement.

Lastly, SB 649 has evolved significantly as it winds its way through the legislative process. This analysis, provided by Telecom, may need to be adjusted if additional amendments are added.

ALTERNATIVES CONSIDERED

The proposed Agreement is the result of negotiations as directed by City Council. Any changes to the Agreement would need to be negotiated with 5 BARS.

FINANCIAL IMPACT

The initial financial impact to the City will be a reduction in existing wireless facility lease revenue of 20 percent, or approximately \$56,000 per year. Prospective new revenue attained by this Agreement will be a net gain to the City, but could vary widely based on pending legislation and regulations. The cost of the master plan, not-to-exceed \$150,000, will affect the City's share of lease revenue received. 5 BARS will deduct 10 percent from the City's recurring revenue share until its costs are fully recouped. In the event the recurring payments are insufficient to recoup the costs, the City will directly reimburse 5 BARS for the balance within 24 months from acceptance of the master plan.

REPORT PREPARED BY Khaled Tawfik, Chief Information Officer

ATTACHMENTS

1. Wireless Marketing Agreement
2. Budget Adjustment

WIRELESS MARKETING AGREEMENT BETWEEN THE CITY OF IRVINE AND 5 BARS COMMUNITIES

This Wireless Marketing Agreement (this “**AGREEMENT**”) is made and entered into on _____, 2017 (the “**Effective Date**”) between the City of Irvine, a chartered California municipal corporation (“**CITY**”), and XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities (“**5 BARS**”) (each a “**PARTY**” and collectively the “**PARTIES**”), with reference to the following facts and intentions, which the PARTIES agree are true and correct to the best of their knowledge and belief:

BACKGROUND

- A. CITY is a chartered municipal corporation formed under the laws of the State of California, operating under its charter.
- B. 5 BARS is a limited liability company formed under the laws of Delaware.
- C. 5 BARS offers master planning services and tools that merge technical expertise on wireless coverage needs with surveys of existing and forecasted wireless coverage conditions. 5 BARS evaluates that information to identify existing municipal assets that can meet wireless coverage needs.
- D. 5 BARS provides planning tools so that subscribing municipal corporations may access the information and identify intelligent options and solutions for the processing of applications for wireless telecommunications facilities on a real-time basis.
- E. Subject to the terms and conditions in this Agreement, CITY desires to engage 5 BARS to provide wireless consulting, management and development services related to the use of certain CITY assets, excluding the “Orange County Great Park” portion of the CITY, for the purpose of planning and implementing a marketing plan for Wireless Telecommunications Facilities (as that term is defined in Section 2, below), as further described herein.
- F. Subject to the terms and conditions in this Agreement, CITY desires to engage 5 BARS to proactively market certain CITY-owned underutilized assets on terms that maximize revenue and minimize planning impacts and visual blight.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing background, which is incorporated into the operative provisions of this Agreement by this reference, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the PARTIES AGREE as follows:

1. **Term.** This Agreement shall be effective on the date it is executed by all PARTIES and shall be in effect for an initial term of five (5) years. This Agreement may be renewed for four (4) five (5) year renewals subject to the written mutual consent of the PARTIES. The full potential term of the Agreement is twenty five (25) years (the “**Agreement Term**”).
2. **Scope and Nature of Services.** 5 BARS shall provide the services described in this section (“**Services**”) for the purposes of 5 BARS’s planning, marketing, sublicensing, development, maintenance and/or operation of certain tower(s), pole(s), building(s), fiber, conduit(s), data room(s), street furniture and any structure(s) or object(s) of any kind or character not particularly mentioned herein (“**City Asset(s)**”), which 5 BARS proposes to locate or cause to be located on City Assets and within the public rights-of-way

within CITY's territorial boundaries, excepting therefrom those portions within the Orange County Great Park ("**City Right-of-Way**") for the purposes of promoting, transmitting or facilitating wireless communication of telephone or data or any other means ("**Wireless Telecommunications Facilities**"). CITY shall, in CITY's sole and absolute discretion, identify a list ("**Asset List**") of City Assets to be included in Services provided by 5 BARS. CITY may, in CITY's sole and absolute discretion, elect to add or remove one or more City Assets from the Asset List at any time by notifying 5 BARS in writing. Any changes by CITY to the Asset List shall be effective immediately upon receipt by 5 BARS. Notwithstanding the foregoing, the Scope of this Agreement shall be limited to those Properties not contained within the boundary of "Orange County Great Park" in the CITY.

a. **Consulting Services.** 5 BARS shall provide CITY the following consulting services at no cost to CITY: a comprehensive radio frequency ("**RF**") analysis, which will, among other things: (i) describe, using state-of-the-art metrics, the current state of wireless coverage within CITY's jurisdiction for each major wireless telecommunications carrier; (ii) identify key areas of multiple wireless broadband service provider coverage needs ("**Coverage Needs**"); (iii) identify potentially available City Assets (whether identified on the Asset List or not) that would satisfy or partially satisfy Coverage Needs; and (iv) provide RF modeling to show how the selection of additional sites for Wireless Telecommunications Facilities will address Coverage Needs. The items referred to in clauses (i), (ii) and (iii) from the preceding sentence are hereinafter collectively referred to as the "**Master Plan**," while the items referred to in clauses (i), (ii), (iii) and (iv) in the preceding sentence are hereinafter collectively referred to as the "**Consulting Services**". 5 BARS shall deliver the Master Plan to CITY within ninety (90) days from the Effective Date. In addition to the Master Plan and Consulting Services, and at no additional cost to CITY, 5 BARS shall perform the services described **Exhibit "D"** (the "**Additional Services**"), attached hereto and incorporated herein by this reference. For the duration of the Agreement Term, 5 BARS shall also provide: (I) on a quarterly basis, a written report summarizing investments, technology changes, financial gains and provider plans; and (II) on an annual basis, ongoing RF analysis with written reports, feasibility analysis, pricing and fee recommendations, form factor and aesthetic policy development, technology refresh and advancement updates and other consultation specific to wireless broadband service providers, unless 5 BARS and CITY mutually waive the annual ongoing study, to ensure CITY is capitalizing on opportunities to improve wireless broadband service to the community.

b. **Marketing Services.** At no cost to CITY, 5 BARS shall market the Master Plan to wireless carriers, cable companies, internet service providers ("**ISPs**"), street light providers and Internet of Things ("**IoT**") companies (collectively referred to as "**Wireless Services Providers**") to obtain their feedback and solicit their interest in locating and/or collocating on any existing and/or proposed site(s) included in the Master Plan. Except as otherwise provided in this Agreement, CITY grants 5 BARS the exclusive right to market, license, sublicense, and construct upon, at 5 BAR's sole cost and expense, City Assets identified on the then-current Asset List for the development of Wireless Telecommunications Facilities. 5 BARS shall market the Master Plan to all Wireless Services Providers equally, without any discrimination and/or favoritism between Wireless Services Providers, and with a goal of ensuring that residents, visitors, and businesses within CITY's jurisdiction receive the maximum benefit of all available services from all existing Wireless Services Providers.

c. **Management Services.**

i. During the Agreement Term, 5 BARS may at any time request in writing that CITY make any City Assets available for the development of Wireless Telecommunications Facilities. CITY shall have sole and absolute discretion to approve or disapprove any such request. Upon a determination of approval, CITY shall notify 5 BARS of such determination in writing, and shall offer to enter into a license with 5 BARS, which license shall be in a form that is substantially consistent with the form set forth in **Exhibit "A"** (each a "**License**") attached hereto and incorporated herein by this reference.

ii. After the PARTIES fully execute a License, 5 BARS or an affiliate of 5 BARS, at no cost to CITY, shall construct or cause the construction of the Wireless Telecommunications Facilities, and sublicense the City Assets (either as improved with Wireless Telecommunications Facilities, or subject to improvement with Wireless Telecommunications Facilities) in accordance with the terms of this Agreement and the License to be executed for each designated City Asset (provided, however, that CITY may authorize 5 BARS to use a single License for multiple or all sites that are the subject of this Agreement).

iii. 5 BARS understands and acknowledges that CITY shall have the final determination as to whether to approve or disapprove the execution of a License and/or other agreement of substantially equivalent purpose (or an amendment to any such License and/or other agreement) for any City Asset. 5 BARS further understands and acknowledges that it must comply (or cause compliance) with and receive (or cause receipt of) all necessary entitlements and permits from CITY, in CITY's regulatory capacity as a local public agency, including but not limited to complying (or causing compliance) with CITY's ordinances, regulations, guidelines, policies and procedures governing Wireless Telecommunications Facilities, all applicable building codes and public works requirements, as well as complying (or causing compliance) with and receiving (or causing receipt of) all necessary and applicable permits from any other regulatory agency, before 5 BARS undertakes (or causes the undertaking of) any construction, installation or other work subject to any prior permit or other regulatory approval on any City Asset.

d. **Exclusions.**

i. This Agreement shall not require or allow 5 BARS to market, license, sublicense, and/or construct Wireless Telecommunications Facilities on City Assets that are not on the approved Asset List.

ii. City Assets intended for direct-marketing by the City for macrocell site development are identified in writing by the City ("***City Marketed Assets***"). City Marketed Assets shall be marketed, if at all, directly by the City only; marketing rights for such assets shall not be granted, delegated or contracted to any third party. CITY may, in its sole and absolute discretion, elect to add or remove one or more City Marketed Assets from the City Marketed Asset List at any time and notify 5 BARS in writing. Any changes by CITY to the City Marketed Asset List shall be effective immediately upon receipt by 5 BARS. Notwithstanding anything in this Agreement to the contrary, this Agreement shall not prohibit or limit CITY's ability to assign or in any other manner transfer to any third parties any CITY interest, in whole or in part, in any CITY leases, licenses, and other agreements in existence as of the Effective Date.

iii. This Agreement shall not require the provision of Services by 5 BARS for facilities licensed to any municipal, county, district, agency, state or federal government for stations in the Private Land Mobile Radio Services, Maritime Radio Services, Aviation Radio Services, other stations designated for Homeland Security or Law Enforcement communications or the circuits necessary to support such facilities ("***Excluded Services***"). This Agreement shall not limit, control, or govern the provision of the Excluded Services by CITY.

3. **[intentionally omitted from this Agreement]**

4. **Right of Entry Agreement.** Subject to the terms and conditions in this Agreement, 5 BARS shall have the right to analyze the suitability of the City Assets designated by CITY for 5 BARS' Services. CITY and 5 BARS shall enter into a Right of Entry Agreement for 5 BARS, substantially in the form shown in **Exhibit "B"** attached hereto and incorporated herein, and its employees, agents, contractors, engineers and surveyors to have the right to enter upon City Assets, upon reasonable written notice to CITY, to (i) inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of City Assets; (ii) to apply for all licenses and permits required

for 5 BARS' use of the designated City Assets from all applicable governmental or regulatory entities; (iii) to do those things on or off the designated City Assets that, in the sole opinion of 5 BARS, are necessary to determine the physical condition of designated City Assets; (iv) and the feasibility or suitability of the designated City Assets for 5 BARS' use ("***Due Diligence Investigation***"). Activities conducted in connection with 5 BARS' Due Diligence Investigation shall be at the sole expense and cost of 5 BARS. The Right of Entry Agreement shall grant 5 BARS non-exclusive access to the designated City Assets for a defined and specific period of time as set forth in the Right of Entry Agreement. Notwithstanding anything in this Agreement or any Right of Entry Agreement to the contrary, CITY shall have the right to (a) refuse access to the designated City Assets when the requested access would interfere with CITY's municipal functions and (b) observe access to the designated City Assets and any on-site Due Diligence Investigation.

5. **CITY-Owned Wireless Telecommunications Facilities and CITY Licenses.** CITY shall retain ownership of all CITY leases, licenses, and other agreements in existence as of the Effective Date with wireless providers located within CITY's jurisdictional boundaries, provided, however that 5 BARS shall, upon CITY's written request, enter into a license in a form substantially similar to Exhibit "A" (but adapted for the purposes of 5 BARS' management of macrocell facilities on CITY's private property) to manage any such existing CITY lease, license, or other agreement with wireless providers ("***Managed Macrocells***"). CITY shall retain ownership of any Wireless Telecommunications Facilities CITY subsequently develops on property owned or leased by CITY for CITY's own non-commercial use. 5 BARS and/or its sublicensees shall own the Wireless Telecommunications Facilities developed on City Assets pursuant to this Agreement.

6. **Compensation.**

a. CITY shall be entitled to **sixty-five percent (65%)** of recurring gross payments that are received by 5 BARS from sublicensees on new Wireless Telecommunications Facilities that are on City Assets licensed to 5 BARS pursuant to this Agreement. 5 BARS shall be entitled to keep the remaining **thirty-five percent (35%)** of recurring gross payments.

b. CITY shall be entitled to **seventy-five percent (75%)** of recurring gross payments that are received by 5 BARS as a result of the addition of one (1) or more Wireless Telecommunications Facilities to the site of a Wireless Telecommunications Facility. 5 BARS shall be entitled to keep the remaining **twenty-five percent (25%)** of recurring gross payments.

c. CITY shall be entitled to **eighty percent (80%)** of recurring gross payments that are received by either 5 BARS in connection with any Managed Macrocells. 5 BARS shall be entitled to keep the remaining **twenty percent (20%)** of recurring gross payments.

d. All sums payable to CITY under Section 6(a) and Section 6(b) are referred to as "***Compensation***". 5 BARS shall pay CITY all Compensation, without setoff, deduction or counterclaim, promptly upon receipt from the Wireless Service Provider or any other licensee or sublicensee of City Assets. Any Compensation not received by CITY within thirty (30) business days from the date the recurring gross payment is due to 5 BARS shall be subject to an immediately due and payable late charge equal to six percent (6%) of the outstanding amount. In addition to any late charge, any Compensation not received by CITY within sixty (60) calendar days from the date the recurring gross payment is due to 5 BARS shall bear interest at ten percent (10%) per annum or the highest rate permitted by law (whichever is greater).

e. **Reports.** Annual written reports reflecting the revenue generated by 5 BARS from City Assets and revenues generated to CITY will be provided by 5 BARS (each an "***Annual Report***"). Each Annual Report shall contain a list of all licenses, sublicenses and/or other agreements in connection with City Assets, and a ledger that shows the date and amount for all sums received by 5 BARS in connection

with said licenses, sublicenses and/or other agreements.

7. **Construction, Engineering, and Other Costs.** CITY shall have no financial responsibility for planning, construction, and engineering costs associated with the implementation of this Agreement. 5 BARS may recover from Wireless Service Providers the reasonable construction costs, installation costs, utilities or other expenses incurred by 5 BARS, to the extent said reimbursement does not reduce the rent to be paid by Wireless Service Providers, and such recovered sums shall not be included in the computation of Compensation; provided, however, that any such reimbursement shall be disclosed in the Annual Report immediately following 5 BARS' receipt of such sums. For the avoidance of doubt, no sums payable by a Wireless Service Provider to 5 BARS as reimbursement for expenses in connection with the implementation of this Agreement shall be added to or deducted from "gross payments" for purposes of Section 6.

8. **Default; Termination.**

a. If there is a default by either PARTY to this Agreement, the PARTY claiming a default of any term or condition of this Agreement shall provide the defaulting PARTY with written notice of the default pursuant to the provisions contained in Section 15(h) of this Agreement. After receipt of such notice, the defaulting PARTY shall have ten (10) calendar days in which to cure any monetary default and sixty (60) days in which to cure a non-monetary default. If a non-monetary default reasonably requires more than a sixty (60) day cure period, the defaulting PARTY shall have such extended period provided that the defaulting PARTY commences the cure within the sixty (60) day period and thereafter diligently pursues the cure to completion.

b. Subject to and without limiting the foregoing, the PARTIES agree that the following events shall constitute a default: (i) failure by 5 BARS to diligently market the Master Plan in accordance with Section 2(b), above, shall constitute a default under this Section 8; (ii) the appointment of a receiver due to 5 BARS' insolvency to take possession of all or substantially all of the assets of 5 BARS; (iii) an assignment by 5 BARS for the benefit of creditors; or (iv) any action taken by or against 5 BARS under any insolvency, bankruptcy, reorganization, moratorium, or other debtor relief laws, if any such receiver, assignment, or action is not released, discharged, dismissed, or vacated within 60 calendar days.

c. In addition to all CITY's other termination rights, CITY may terminate this Agreement for any reason upon ninety (90) days written notice to 5 BARS; provided, however, that 5 BARS shall have a right to file an appeal to the City Council within such 90-day period. If 5 BARS fails to timely appeal, the termination will be effective upon the end of the 90-day period. If 5 BARS timely appeals, then the effective date of the termination will be stayed until the City Council reaches a final determination.

9. **Right to Audit.** During the Term of this Agreement the PARTIES shall maintain originals or, when originals are not available, copies of all records, books, papers, correspondence and documents relating to this Agreement and all accompanying licenses, sublicenses or other agreements between the PARTIES. 5 BARS shall maintain originals or, when originals are not available, copies of all records, books, papers, correspondence and documents relating to any licenses, sublicenses or other agreements between 5 BARS and any third parties in connection with City Assets. At all reasonable times, the PARTIES shall allow each other to have access to examine and audit such all records, books, papers, correspondence and documents. Additionally, 5 BARS shall allow CITY, and CITY shall have the right, at any time, to have access to and examine and audit records, books, papers, correspondence and documents relating to or evidencing 5 BARS' efforts to obtain sublicenses as such records, books, papers, correspondence and documents may or may not exist in the normal course of 5 BARS' business. CITY shall have the right to copy, carry away and disclose to others any and all records, books, papers, correspondence and other documents in connection with this Agreement to the extent that such copying, carrying away and disclosing is required by applicable laws or any judicial or administrative order.

10. **Indemnification.** 5 BARS shall indemnify, defend, and hold CITY and its employees, representatives, officers and agents (collectively hereinafter “***City Personnel***”) harmless from and against any and all actions, suits, claims, demands, judgments, attorney’s fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter “***claims***” or “***liabilities***”) that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of 5 BARS, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of CITY and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of CITY or City Personnel in connection therewith: (a) 5 BARS shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney’s fees incurred in connection therewith; (b) 5 BARS shall promptly pay any judgment rendered against CITY or any City Personnel for any such claims or liabilities; and (3) in the event CITY and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, 5 BARS shall pay to CITY any and all costs and expenses incurred by CITY or City Personnel in such action or proceeding, together with reasonable attorney’s fees and expert witness fees.

11. **Insurance.** At the time 5 BARS signs and delivers this Agreement to CITY, as well as at all times during the Agreement Term, 5 BARS shall maintain, at a minimum, the required insurance as set forth in the attached **Exhibit “C”** to this Agreement. CITY shall be entitled to coverage at the maximum policy limits for the required insurance maintained by 5 BARS, which shall at no time be less than the amounts required set forth in the attached Exhibit “C” to this Agreement. This Agreement’s insurance provisions shall be separate and independent from the indemnification and defense provisions of Section 9 of this Agreement and shall not in any way limit the applicability, scope or obligations of the indemnification defense provisions in Section 9. Neither 5 BARS nor any 5 BARS employee, agent, representative or subcontractor shall be permitted to exercise any rights to access or market any City Assets under this Agreement until CITY receives copies of all insurance policies, endorsements and other documentation required under this Agreement, including without limitation **Exhibit “C”**. 5 BARS’ obligations under this Section 11 will survive the expiration or termination of this Agreement.

12. **Compliance with Local Ordinances.** Subject to Section 3 above, 5 BARS shall comply with all CITY ordinances pertaining to Wireless Telecommunications Facilities, and all such additional CITY regulations that are consistent with such ordinances (such ordinances and regulations are collectively referred to hereinafter as the “***Ordinance***”).

13. **Intellectual Property.**

a. **Ownership of Services.** 5 BARS retains all right, title, and interest in any underlying software subject to the limitations set forth in this Agreement.

b. **License.** 5 BARS hereby grants to CITY a limited, non-exclusive, non-transferable, non-sublicensable license during the term of this Agreement to use the Services for the purposes of offering, promoting, managing and tracking the development and use of Wireless Telecommunications Facilities. At the time this Agreement expires or terminates, all documents, reports, charts, graphs, diagrams, maps, things and other work product related to the Master Plan and the Additional Services shall become the CITY’s property.

c. **Exclusivity.** During the term of this Agreement, 5 BARS will be the sole and exclusive provider of services as defined as “Services” in this Agreement, subject to the City’s right to directly market City Marketed Assets and continue to do all acts and things in connection with any CITY

leases, licenses, and other agreements in existence as of the Effective Date. CITY expressly understands and agrees that the exclusivity set forth in this Agreement is consideration in exchange for the pricing and other benefits being provided to CITY hereunder. 5 BARS expressly understands and agrees that the value and timely performance of the Services are consideration in exchange for the exclusivity granted in this Agreement.

d. Additional CITY Commitments. CITY acknowledges that it is using licensed software containing proprietary and intellectual property and shall: (i) not copy, modify, transfer, display, share or use any portion of the licensed software except as expressly authorized in this Agreement, as may be required by law or in the applicable documentation; (ii) not contest or do or aid others in contesting or doing anything which impairs the validity of any proprietary or intellectual property rights, title or interest of 5 BARS in and to any software; (iii) not engage in any activity undertaken in CITY's proprietary capacity that unreasonably interferes with or unreasonably disrupts 5 BARS' provision of the Services; and (iv) use the Services exclusively for authorized and legal purposes, consistent with all applicable laws, regulations and the rights of others.

14. Governing Law. This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State of California. The parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange.

15. General Provisions.

a. Independent Contractor. 5 BARS shall, during the Agreement Term, be construed as an independent contractor and not an employee of CITY. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship or to allow CITY to exercise discretion or control over the professional manner in which 5 BARS performs the services which are the subject matter of this Agreement; however, the services to be provided by 5 BARS shall be provided in a manner consistent with all applicable standards and regulations governing such services. 5 BARS shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

b. Authorizations. All individuals executing this Agreement on behalf of the respective PARTIES certify and warrant that they have the capacity, and have been duly authorized to so execute this Agreement on behalf of the entity so indicated.

c. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

d. Entire Agreement and Amendment. This Agreement captures all terms, agreements, and understandings of the PARTIES and supersedes any prior promises, representations, agreements, warranties or undertakings by any of the PARTIES, either oral or written, of any character or nature binding except as stated herein. This Agreement may be modified, altered or amended only by an instrument in writing, executed by the PARTIES to this Agreement, and by no other means. Each PARTY waives its right to claim, contest or assert that this Agreement was modified, canceled, superseded or changed by any oral agreement, course of conduct, waiver or estoppel.

e. Good Faith. The PARTIES agree to exercise their reasonable best efforts and utmost good faith to effectuate all the terms and conditions of this Agreement, and to execute such further instruments and documents, in forms reasonably acceptable to both CITY and 5 BARS, as are necessary or appropriate to effectuate all of the terms and conditions of this Agreement.

f. Assignment. 5 BARS may assign this Agreement to a person or entity with demonstrated capacity to carry out 5 BARS' obligations under this Agreement after receiving written CITY consent, which shall not be unreasonably withheld or delayed. 5 BARS shall provide any information requested or necessary for CITY to determine whether the proposed assignee has the capacity to fulfil 5 BARS' obligations under this Agreement. Any assignment in violation this Section 15(f) shall be void.

g. Discrimination. 5 BARS shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, age, national origin, ancestry or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities. 5 BARS affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

h. Notices. All notices, approvals, acceptances, demands and other communication required or permitted under this Agreement, to be effective, shall be in writing and, unless otherwise provided herein, shall be deemed validly given on the date either: (1) personally delivered to the address indicated below; or (2) on the third business day following deposit, postage prepaid, using certified mail, return receipt requested, in any U.S. Postal mailbox or at any U.S. Post Office; or (3) one business day after the dispatch date by overnight delivery service; or (4) on the date of transmission by facsimile to the number provided below. All notices, demands, or requests shall be addressed to the following:

CITY:

Phone: _____
Fax: _____

With a copy to:

Phone: _____
Fax: _____

5 BARS:

Kevin Muldoon, VP & General Counsel
5 Bars Communities
19200 Von Karman Ave, Suite 100
Irvine, CA 92612
Phone: 949-514-4617
Fax: 949-266-9160

With a copy to:

Rutan & Tucker, LLP
611 Anton Blvd., 14th Floor
Costa Mesa, CA 92626
Phone: 714-641-5100
Fax: 714-546-9035

Any PARTY may change its address by giving the other PARTIES written notice of its new address as provided above.

i. Successors. This Agreement shall be binding on and shall inure to the benefit of the PARTIES and their respective successors.

j. Waiver. No failure by either PARTY to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by CITY of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of CITY's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either PARTY of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A PARTY's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting PARTY's consent in any other or future instance under the terms of this Agreement.

k. Captions. The captions preceding the Sections of this Agreement are intended only for convenience of reference and in no way define, limit or describe the scope of this Agreement or the intent of any provision hereof.

l. Construction of Document. CITY and 5 BARS acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said party being the drafter and that this Agreement shall not be construed as a binding offer until signed by 5 BARS. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

m. Partial Invalidity. If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

n. Survival. Expiration or earlier termination of this Agreement will not affect the right of either party to enforce any and all indemnities and representations and warranties given or made to the other party under this Agreement, or any provision of this Agreement that expressly survives termination or expiration, or by its sense or context contains an obligation that either should survive expiration or termination or would necessarily be performed after expiration or termination.

o. Attorneys' Fees. In the event that either PARTY prevails in an action to enforce its

rights under this Agreement, the prevailing PARTY shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, CITY and 5 BARS having read the foregoing and intending to be legally bound hereby, have executed this Agreement as of the day and year this Agreement is fully executed.

CITY OF IRVINE

By: _____
Kristin Griffith
Its: Director of Administrative Services

By: _____
Sean Joyce
Its: City Manager

By: _____
Molly McLaughlin
City Clerk

APPROVED AS TO FORM:
Telecom Law Firm PC

Tripp May, Esq.

**5 BARS
XG COMMUNITIES, LLC, a Delaware
limited liability company,
dba 5 Bars Communities**

By: 
Monnie McGaffigan
Its: President, 5 Bars Communities

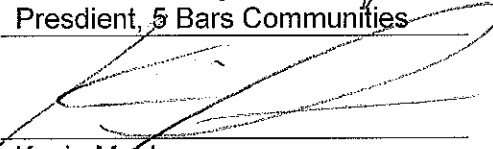
By: 
Kevin Muldoon
Its: VP & General Counsel, 5 Bars
Communities

EXHIBIT A

LICENSE AGREEMENT

THIS LICENSE AGREEMENT is made as of the date of the final signature below, by and between the City of Irvine, a chartered California municipal corporation, with an address at One Civic Center Plaza, Irvine, California 92623-9575 ("**Licensors**") and XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities, with an address at 19200 Von Karman Avenue, Suite 100, Irvine, California 92612 ("**Licensee**").

1. Definitions.

"**Agreement**" means this License Agreement.

"**Approvals**" means all certificates, permits, licenses and other regulatory approvals that Licensee must obtain as required by law in order for Licensee or its agents or sublicensees to use the Licensed Premises for the purpose intended by this Agreement.

"**Defaulting Party**" means the party to this Agreement that has defaulted as provided for in Section 27 of this Agreement.

"**Due Diligence Investigation**" means to (i) inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of Licensors' Property; (ii) to apply for all licenses and permits required for Licensee's use of the designated Licensors' Property from all applicable governmental or regulatory entities; (iii) to do those things on or off the designated Licensors' Property that, in the sole opinion of Licensee, are necessary to determine the physical condition of designated Licensors' Property; (iv) and the feasibility or suitability of the designated Licensors' Property for Licensee's use.

"**Harmful Interference**" means Interference (as defined in this Section 1) that endangers the functioning of a radio navigation service or other safety services, or seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the regulations of the Federal Communications Commission.

"**Hazardous Material**" means any substance which is (i) designated, defined, classified or regulated as a hazardous substance, hazardous material, hazardous waste, pollutant or contaminant under any Environmental Law, as currently in effect or as hereafter amended or enacted; (ii) a petroleum hydrocarbon, including crude oil or any fraction thereof and all petroleum products; (iii) polychlorinated biphenyls ("**PCBs**"); (iv) lead; (v) asbestos; (vi) flammable explosives; (vii) infectious materials; or (viii) radioactive materials.

"**Environmental Law(s)**" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601 *et seq.*, the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901 *et seq.*, the Toxic Substances Control Act, 15 U.S.C. §§ 2601 *et seq.*, the Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101 *et seq.*, and the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, as said laws have been supplemented or amended to date, the regulations promulgated pursuant to said laws and any other federal, state or local law, statute, rule, regulation or ordinance that regulates or proscribes the use, storage, disposal, presence, clean-up, transportation or release or threatened release into the environment of Hazardous Material.

"**Interference**" means the effect of unwanted energy due to one or a combination of emissions, radiations or inductions upon reception in a radio communication system, manifested by any performance degradation, misinterpretation or loss of information.

“Licensed Premises” means those portions of Licensor’s Property more particularly described and depicted in **Exhibit “A-1”** attached hereto and incorporated herein by this reference.

“Licensee” means XG Communities, LLC, a Delaware limited liability company dba 5 Bars Communities.

“Licensee’s Notice Address” means 19200 Von Karman Avenue, Suite 100, Irvine, California 92612.

“Licensor” means City of Irvine, a chartered California municipal corporation.

“Licensor Facilities” means any and all existing facilities, inclusive of, but not limited to, all buildings and improvements owned by and under the possession and control of Licensor, including but not limited to utility poles, lamp posts, other utility facilities, fences, gates, and all roof tops of all such buildings, facilities and/or improvements.

“Licensor’s Notice Address” means One Civic Center Plaza, Irvine, California 92623-9575.

“Licensor’s Properties” means those properties identified on Exhibit “A-1” (each of which is a subject of this License Agreement).

“Non-Defaulting Party” means the party to this Agreement that has not defaulted as provided for in Section 27 of this Agreement.

“Release” when used with respect to Hazardous Material includes any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing on, under or about the Licensed Premises, other Licensor’s Property or the environment.

“Rent” means **sixty-five percent (65%)** of recurring Sublicense Revenue receivable by Licensee from Sublicensees pursuant to a license, sublicense or other similar agreement between Licensee and a Sublicensee for a Wireless Telecommunications Facilities constructed on the Licensed Premises under or pursuant to this Agreement.

“Sublicense Revenue” means the total amount of rent (excluding any reimbursement from Sublicensee(s) of taxes, construction costs, installation costs, utilities or other actual, reasonable and documented expenses incurred by Licensee to the extent said reimbursement is not an offset of rent to be paid by Sublicensee(s)) payable to Licensee by all Sublicensee(s) using each of the Licensed Premises, whether pursuant to a license, sublicense or other similar agreement, as modified, renewed or assigned.

“Sublicensee” means a third party to which Licensee has granted the right to use and occupy of one or more of the Licensed Premises, subject to the terms and conditions contained herein.

“Subscription Agreement” means the Wireless Marketing Agreement between the City of Irvine and 5 Bars Communities, dated _____, 2017.

“Wireless Telecommunications Facilities” or **“Wireless Facilities”** means the equipment and associated structures needed to transmit and/or receive electromagnetic signals. A Wireless Telecommunications Facility typically includes antennas, supporting structures, enclosures and/or cabinets housing associated equipment, cable, access roads and other accessories.

2. **Licensor’s Cooperation.** During the Term, Licensor, in its proprietary capacity as the owner of the Licensed Premises, shall: (i) reasonably cooperate with Licensee in its efforts to obtain all of the Approvals

and (ii) take no action that would adversely affect any of the Licensed Premises. Licensor acknowledges that Licensee's ability to use each of the Licensed Premises is contingent upon Licensee obtaining and maintaining the Approvals. Additionally, Licensor authorizes Licensee and its employees, representatives, agents and consultants to prepare, and submit, file and present on behalf of Licensor building, permitting, zoning or land-use applications with the appropriate local, state and/or federal agencies necessary to obtain land use changes, special exceptions, zoning variances, conditional use permits, special use permits, administrative permits, construction permits, operation permits and/or building permits. Licensor, in its proprietary capacity as the owner of the Licensed Premises, shall not knowingly do or permit anything that will unreasonably interfere with or negate any Approvals pertaining to the Wireless Telecommunications Facility(ies) or Licensed Premises or cause them to be in nonconformance with applicable local, state or federal laws. Licensor agrees to execute such documents as may be reasonably necessary to obtain and thereafter maintain the Approvals, and agrees to be named as the applicant for said Approvals. The provisions of this Section shall not apply in the event of any dispute between and/or involving Licensor and Licensee.

3. **[intentionally omitted from this Agreement]**

4. **Term.** The term of this Agreement shall commence on _____, 2017 ("**Commencement Date**") and continue until the license for each Licensed Premises listed in Exhibit "A-1" has expired, unless earlier terminated as provided in this Agreement. The term of each license listed in Exhibit "A-1" shall begin on the commencement date listed for such Licensed Premises on Exhibit "B", and shall continue for a period not to exceed fifteen (15) years without Licensor's prior written consent, and with three (3) five (5) year options subject to the written mutual consent of the Licensor and Licensee. Licensee acknowledges that, upon the termination or expiration of any license for any Licensed Premises, Licensee shall have no further right, title or interest in such license for such Licensed Premises.

5. **Rent.**

a. **Licensee's Obligation to Pay Rent.** From and after the Commencement Date and effective upon Licensee's receipt of Sublicense Revenue or thirty (30) days after the Sublicense Revenue is due and payable to Licensee, Licensee shall pay Licensor Rent for the each of the Licensed Premises.

b. **Sublicenses.** Licensee shall exercise commercially reasonable discretion as to whether, and on what terms, to sublicense, license or otherwise allow use or occupancy of the Licensed Premises, subject to the following:

- i. Licensee shall make every reasonable effort to ensure that each proposed Wireless Telecommunications Facility will not affect, detract from or impact the operation of existing Licensor facilities or Licensor's municipal functions.
- ii. Licensee shall not interfere, or permit, allow or suffer others to interfere, with any traffic signal control and street lighting devices. Licensee shall immediately notify Licensor in the event that Licensor discovers any such interference.
- iii. Licensee shall ensure that the proposed Wireless Telecommunications Facility is not dependent on the resources dedicated to Licensor facilities, which includes without limitation electrical or telephone utilities.
- iv. Licensee shall propose new locations for Wireless Telecommunications Facilities to Licensor, and Licensor shall have the final authority to approve or reject said locations in its sole and absolute discretion.

- v. In the event of any damage to any Wireless Telecommunications Facility, Licensor shall not be obligated to repair or restore the Wireless Telecommunications Facility to normal operating conditions except to the extent that Licensor caused such damage. As between Licensee and Licensor, Licensee shall bear all other costs incurred to repair or restore Wireless Telecommunications Facilities; provided, however, the Licensee may allocate its responsibility under this sentence to a third party, including a Sublicensee, so long as such allocation does not cause any damage to go un-remediated for more than thirty (30) days (or sooner time if the damage threatens public safety).
- vi. In the event of any damage to Licensor's Properties caused by Licensee, its agents, employees, licensees, sublicensees, invitees, contractors or subcontractors, Licensee shall promptly restore Licensor facilities in a safe and efficient manner.
- vii. Licensee shall give Licensor reasonable notice (or no less than fourteen (14) days) prior to impacting Licensor facilities in a manner that is beyond the routine maintenance and operation of Wireless Telecommunications Facilities.
- viii. Any license, sublicense or other similar agreement between Licensee and any third party in connection with the Licensed Premises shall include the requirement that the Sublicensee must comply with the terms and conditions of this Agreement.
- ix. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include a provision substantially consistent with the following, relating to interference with Licensor facilities and communications systems:

Notwithstanding any other provisions this Sublicense Agreement, Sublicensee agrees to operate any and all of its Wireless Telecommunications Facilities on the Property in full compliance with the technical standards set forth in the Rules and Regulations of the Federal Communications Commission ("FCC") as codified in 47 C.F.R. or as may be otherwise required in any order or declaratory ruling adopted by the FCC and upon notice of non-compliance agree to take all steps necessary to bring its operation into full compliance. Licensee and Sublicensee both recognize and stipulate that City's public safety communications systems are vital to the life, health and safety of the public safety personnel and of members of the general public, and agree that protecting such systems against harmful interference is an integral responsibility of this Sublicense Agreement.

Licensee and Sublicensee agree to meet and confer with City on a case-by-case basis, and at the request of any Party and/or City, in the event that additions or changes to Wireless Telecommunications Facilities on the property cause incompatibilities with City's installed communications system(s).

Licensee and Sublicensee agree that in the event of harmful interference or degradation to City's public safety radio operations, City may require on a case-by-case basis that the use of the interfering Wireless Telecommunications Facility be suspended upon reasonable notice by City to Licensee and the applicable Sublicensee pending resolution of the cause and cure of such interference or degradation.

The findings of the City's communications engineering representative shall be determinant in declaring harmful interference caused by such non-compliance, and, in the event of a dispute, the burden of seeking a determination of compliance from the FCC shall be on the Sublicensee.

The meet and confer procedure shall not be invoked unless absolutely necessary.

These provisions shall be binding on Licensee, Sublicensee, and any successor, assignee or service provider designated by Licensee and/or Sublicensee.

- x. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include provisions substantially consistent with the following:

*Sublicensee shall indemnify, defend, and hold the City of Irvine and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Sublicensee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Sublicense, whether or not there is concurrent active or passive negligence on the part of City and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of City or City Personnel in connection therewith:*

(1) Sublicensee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith.

(2) Sublicensee shall promptly pay any judgment rendered against City or any City Personnel for any such claims or liabilities.

(3) In the event City and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Sublicense, Sublicensee shall pay to City any and all costs and expenses incurred by City or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees.

- xi. Any license, sublicense or other similar agreement between Licensee and any third party in connection with Licensed Premises shall include provisions substantially consistent with the following:

Without limiting Sublicensee's indemnification obligations, Sublicensee shall procure and maintain, at its sole cost and for the duration of this Sublicense, insurance coverage as provided below, against all claims for injuries against persons or damages to property which may arise from or in connection with the performance of the work hereunder by Sublicensee, its agents, representatives,

employees and/or subcontractors. In the event that Sublicensee subcontracts any portion of the work contemplated in this Sublicense, the contract between Sublicensee and such subcontractor shall require the subcontractor to maintain the same policies of insurance that the contractor is required to maintain pursuant to this Section.

The policies and amounts of insurance required hereunder shall be as follows:

*(1) **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Sublicensee's performance of this Sublicense. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Sublicensee's performance of this Sublicense; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.*

*(2) **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Sublicensee's performance of this Sublicense; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.*

*(3) **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Sublicensee providing any service in the performance of this Sublicense. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("**SCIF**") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.*

*(4) **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Sublicense and delete any exclusion that may potentially affect the work to be performed. Sublicensee shall provide to Licensor and to the*

City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy endorsements no later than five (5) business days prior to commencement of any work to be performed under this Sublicense and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all Additional Insured Endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Any deductible in excess of \$50,000 and/or self-insured retentions must be approved in writing by the City of Irvine.

Each policy shall be from a company with current A.M. Best's rating of A- VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines brokers under applicable provisions of the California Insurance Code or any federal law. Any other rating must be approved in writing by the City of Irvine.

Sublicensee shall be responsible for causing any and all Sublicensee's contractors and subcontractors in connection with this Sublicense to maintain the same types and limits of coverage in compliance with this Sublicense, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies.

- xii. Licensee shall use best efforts to maximize Rent to Licensor and shall not enter into any license, sublicense or other similar agreement that contains any terms, conditions or other provisions that are manifestly designed or intended to defeat Licensor's interest in receiving Rent from such agreement.
- xiii. Licensee shall not permit or allow any Sublicensee to deduct, withhold or offset any sums from rent or other fees payable to Licensee for any reason whatsoever.
- xiv. Except as specified in this Section 5(b), Licensor shall not unreasonably interfere with Licensee's discretion relating to the terms of sublicenses, licenses or the grants of occupancy of the Licensed Premises.

c. Accounting/Adjustments. The parties hereto acknowledge that all information needed to calculate Rent may, from time to time, not be readily available. Accordingly, the parties agree that Licensee may base Rent on Sublicensee agreements, and later make adjustments if overpayments or underpayments occur. At any time, Licensor may request that Licensee provide an accounting of the Rent in such form and content as Licensor may reasonably request.

6. Construction, Engineering and Other Costs.

a. Licensors shall have no financial responsibility for any planning, construction and/or engineering costs associated with the implementation of this License Agreement.

b. Licensee may recover from Sublicensee(s) taxes, construction costs, installation costs, utilities or other expenses incurred by Licensee, to the extent said reimbursement is not an offset of rent to be paid by Sublicensee(s), and such recovered sums shall not be included in the computation of Rent.

7. **Licensed Premises; Survey.** Within sixty (60) days after any construction, installation or other alteration to the Licensed Premises or the personal property thereon, Licensee shall provide Licensors with a copy of an as-built survey for each Licensed Premises, which shall depict and identify the boundaries of each Licensed Premises and any easements that relate to or affect the Licensed Premises. The description of the each Licensed Premises set forth in Exhibit "A-1" shall control in the event of any discrepancies.

8. **Access.** After the Commencement Date and after Licensee delivers to Licensors all required insurance certificates, endorsements and other documentation required under Section 13, Licensors grants to Licensee and Licensee's employees, agents, contractors, sublicensees, licensees and their employees, agents and contractors non-exclusive access to land located within Licensors's Property to Licensee, for the purpose of constructing, repairing, maintaining, replacing, demolishing and removing the facility to be located upon each Licensed Premises as necessary to obtain or comply with any Approvals, but subject to the reasonable rules and regulations that Licensors may adopt and from time to time amend upon written notice to Licensee (the "**Access License**"). Licensors shall grant to Licensee or Licensee's public utility provider a non-exclusive right-of-way in a location within the Access License and mutually acceptable to Licensors, Licensee and Licensee's public utility provider for the purpose of providing utilities to the Licensed Premises. Licensee may request and Licensors shall not unreasonably deny or withhold the granting of an alternate Utility License either to Licensee or directly to the public utility at no cost and in a location acceptable to Licensors, Licensee and the public utility. The Access Licenses and Utility Licenses (collectively, the "**Access/Utility Licenses**") shall be utilized for the purposes provided during the term of this Agreement and thereafter for a reasonable period of time necessary for Licensee to remove the Wireless Facilities.

9. **Use of Property.** The Licensed Premises and the Access/Utility Licenses shall be used for the purpose of constructing, maintaining and operating Wireless Facilities, for uses reasonably incidental thereto and for no other purposes. All Wireless Facilities shall be constructed at no expense to Licensors. All Wireless Facilities, inclusive of security fences (when permitted by Licensors), shall comply with the requirements of the City of Irvine Municipal Code and all other laws and regulations applicable thereto, and Licensee shall obtain all required and necessary governmental agency Approvals and permits. Licensee will maintain the Licensed Premises in a clean and safe condition. It is the intent of the parties that Licensee's Wireless Facilities shall not constitute a fixture. Notwithstanding the foregoing, the Scope of this Agreement shall be limited to only those Properties not contained within the boundary of "Orange County Great Park" in the CITY.

10. **Removal of Obstructions.** Licensee has the right to remove obstructions from Licensors's Property, subject to Licensors's prior approval, which approval shall be requested in writing by Licensee and shall not be unreasonably withheld, conditioned or delayed by Licensors. Potential obstructions include but are not limited to vegetation, which may encroach upon, interfere with or present a hazard to Licensee's use of the Licensed Premises or the Access/Utility Licenses. Licensee shall dispose of any materials removed.

11. Hazardous Materials.

a. Licensee's Obligation. Licensee covenants and agrees that neither Licensee nor any of its employees, contractors, subcontractors, agents or Sublicensees shall cause or permit any Hazardous Material to

be brought upon, kept, used, stored, generated, disposed of or Released in, on, under or about the Licensed Premises or any other part of Licensor's Property, or transported to or from any Licensor's Property in violation of Environmental Laws, except that Licensee and its Sublicensees may use small quantities of Hazardous Materials as needed for routine operation, cleaning and maintenance of the Wireless Facilities that are customarily used for routine operation, cleaning and maintenance of such equipment and so long as all such Hazardous Materials are contained, handled and used in compliance with Environmental Laws. Licensee shall immediately notify Licensor if and when Licensee learns or has reason to believe any Release of Hazardous Material has occurred in, on, under or about the License Area or other Licensor's Property.

b. [intentionally omitted from this Agreement]

c. Licensee's Environmental Indemnity. If Licensee breaches any of its obligations contained in this Section 11, or if any act, omission, or negligence of Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees results in any contamination of the Licensed Premises or other Licensor's Property, or in a Release of Hazardous Material from, on, about, in or beneath any part of the Licensed Premises or other Licensor's Property, or the violation of any Environmental Law, then Licensee, on behalf of itself and its successors and assigns, shall indemnify, defend and hold harmless Licensor, including its employees, representatives, officers and agents, and their respective successors and assigns from and against any and all claims (including damages for decrease in value of the Licensed Premises or other Licensor's Property, the loss or restriction of the use of usable space in the Licensed Premises or other Licensor's Property and sums paid in settlement of claims, attorneys' fees, consultants' fees and experts' fees and related costs) arising during or after the term of this Agreement relating to such Release or violation of Environmental Laws; provided, however, Licensee shall not be liable for any claims to the extent such Release was caused by the gross negligence or willful misconduct of the Licensor or its employees, representatives, officers and agents. Licensee's indemnification obligation includes costs incurred in connection with any activities required to investigate and remediate any Hazardous Material brought onto the Licensed Premises or other Licensor's Property by Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees and to restore the Licensed Premises or other Licensor's Property to its condition prior to Licensee's introduction of such Hazardous Material or to correct any violation of Environmental Laws. Licensee specifically acknowledges and agrees that it has an immediate and independent obligation to defend Licensor and the other indemnified parties from any claim that actually or potentially falls within this indemnity provision even if the allegations supporting the claim are or may be groundless, fraudulent or false, which obligation arises at the time such claim is tendered to Licensee by the indemnified party and continues until the claim is finally resolved. Without limiting the foregoing, if Licensee or any of its employees, contractors, subcontractors, agents or Sublicensees causes the Release of any Hazardous Material on, about, in, or beneath the Licensed Premises or other Licensor's Property, then in any such event Licensee shall, immediately, at no expense to any indemnified party, take any and all necessary actions to return the Licensed Premises or other Licensor's Property, as applicable, to the condition existing prior to the Release of any such Hazardous Materials on the Licensed Premises or other Licensor's Property or otherwise abate the Release in accordance with all Environmental Laws, except to the extent such Release was caused by the gross negligence or willful misconduct of Licensor or its employees, representatives, officers and agents. Licensee shall afford Licensor a full opportunity to participate in any discussions with regulatory agencies regarding any settlement agreement, cleanup or abatement agreement, consent decree or other compromise or proceeding involving Hazardous Material.

12. **Real Estate Taxes.** To the extent that a possessory interest is deemed created, Licensee acknowledges that notice is and was hereby given to Licensee pursuant to California Revenue and Taxation Code Section 107.6 that use or occupancy of any public property may subject the Licensee to possessory interest taxes or other taxes levied against Licensee's right to possession, occupancy or use of any public property. Licensee shall pay all applicable (federal, state, county, city, local) excise, sales, consumer use, possessory interest or other similar taxes required by law that are levied upon this Agreement or upon Licensee's services under this

Agreement. Licensee agrees to reimburse Licensors for any documented increase in real estate or personal property taxes levied against Licensors' Property that are directly attributable to the Wireless Facilities. Licensors agree to provide Licensee any documentation evidencing the increase and how such increase is attributable to Licensee's use. Licensee reserves the right to challenge any such assessment, and Licensors agree to cooperate with Licensee in connection with any such challenge; provided, however, that Licensee shall either pay any challenged tax or assessment or post any required bond as a prerequisite to Licensee's challenge.

13. **Insurance.** At all times during the performance of its Due Diligence Investigation and during the term of this Agreement, Licensee, at its sole expense, shall obtain and keep in force the required insurance as set forth in the attached **Exhibit "A-2"**. Licensors shall be entitled to coverage at the maximum policy limits carried by Licensee for the required insurance, which shall at no time be less than the required amounts set forth in the attached Exhibit "2" to this Agreement. The insurance provisions shall be separate and independent from the indemnification and defense provisions between the Licensee and Licensors and shall not in any way limit the applicability, scope or obligations of the indemnification defense provisions in Section 14. Neither Licensee, any Sublicensee or any party acting for them shall be permitted to exercise any rights to access Licensors' Property under this Agreement until Licensors receive copies of all insurance policies, endorsements and other documentation required under this Agreement, including without limitation Exhibit "C". Licensors' obligations under this Section 13 will survive the expiration or termination of this Agreement.

14. **Indemnification.** Licensee shall indemnify, defend, and hold Licensors and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorneys' fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Licensee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of Licensors and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of Licensors or City Personnel in connection therewith: (a) Licensee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorneys' fees incurred in connection therewith; (b) Licensee shall promptly pay any judgment rendered against Licensors or any City Personnel for any such claims or liabilities; and (3) in the event Licensors and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, Licensee shall pay to Licensors any and all costs and expenses incurred by Licensors or City Personnel in such action or proceeding, together with reasonable attorneys' fees and expert witness fees.

15. **Right to Audit.** During the term of this Agreement and for a three (3) year period after this Agreement expires or terminates, Licensee shall maintain originals, or when originals are not available copies, of all records, books, papers and documents relating to this Agreement and all accompanying agreements between Licensee and Sublicensees (subject to Licensee's right to reasonably redact such records, books, papers and documents for information other than financial information pertinent to Rent to the extent such non-Rent information is proprietary, confidential or constitute a trade secret). At all reasonable times, Licensee shall allow Licensors and its attorneys, accountants, representatives, agents or other duly authorized designee to have access to, examine and audit such records, including but not limited to access to and audit of information pertaining to the identities of the Sublicensees whom Licensee has attempted to sublicense the Licensed Premises. Licensors shall have the right to copy, carry away and disclose to others any and all records, books, papers, correspondence and other documents in connection with this Agreement to the extent that such copying, carrying away and disclosing is required by applicable laws or any judicial or administrative order.

16. **Waiver of Claims and Rights of Subrogation.** The parties hereby waive any and all rights of action for negligence against the other on account of damage to the Wireless Facilities, Licensors' Property or to the Licensed Premises resulting from any fire or other casualty of the kind covered by property insurance policies with extended coverage, regardless of whether or not, or in what amount, such insurance is carried by the parties. All policies of property insurance carried by either party for the Wireless Facilities, Licensors' Property or the Licensed Premises shall include a clause or endorsement denying to the insurer rights by way of subrogation against the other party to the extent rights have been waived by the insured before the occurrence of injury or loss.

17. **Eminent Domain.** If Licensors receive notice of a proposed taking by eminent domain of any part of the Licensed Premises or the Access/Utility Licenses, Licensors will notify Licensee of the proposed taking within five (5) days of receiving said notice and Licensee will have the option to: (i) terminate this Agreement upon written notice to Licensors; or (ii) remain in possession of that portion of the Licensed Premises and Access/Utility Licenses that will not be taken, in which event there shall be an equitable adjustment in Rent on account of the portion of the Licensed Premises and Access/Utility Licenses so taken.

18. **[intentionally omitted from this Agreement]**

19. **Sale of Property.** If during the Lease Term, Licensors sell all or part of Licensors' Property, of which the Licensed Premises is a part, then such sale shall be subject to this Agreement.

20. **Surrender of Property.** Upon expiration or termination of this Agreement, Licensee shall, within a reasonable time (but not more than 90 days), remove all above and below ground Wireless Facilities and restore the Licensed Premises to its original condition, normal wear and tear excepted, free of debris and hazards, and free and clear of all liens and encumbrances without, however, being required to replace any trees or other plants removed or alter the then existing grading.

21. **Recording.** To the extent that this Agreement covers any Licensors' Property outside the public rights-of-way, Licensee shall have the right to record a memorandum, in a form reasonably acceptable to both Licensors and Licensee, of the Agreement with the County of Orange Recorder's Office. Licensors shall execute and deliver each such memorandum, for no additional consideration, promptly upon Licensee's request. Licensee shall be solely responsible for all costs associated with recording any such memorandum.

22. **Licensors' Covenant of Title.** Licensors covenants that Licensors holds good and marketable fee simple title to Licensors' Property and each of the Licensed Premises, and Licensors has full authority to enter into and execute this Agreement. Licensors further covenants that there are no encumbrances or other impediments of title that might unreasonably interfere with or be adverse to Licensee.

23. **Interference with Licensee's Business.** Licensee shall have the exclusive right to construct, install and operate Wireless Telecommunications Facilities that emit radio frequencies on Licensors' Property that contains the Licensed Premises. Licensors agrees that it will not permit the construction, installation or operation on Licensors' Property that contains the Licensed Premises of (i) any additional wireless telecommunications facilities or (ii) any equipment or device that interferes with Licensee's use of the Licensed Premises for a Wireless Telecommunications Facility; provided, however, that the limitations in this Section 23 shall not be applicable to wireless telecommunication facilities, equipment or devices installed by the City of Irvine in connection with municipal and/or public safety purposes. Each of the covenants made by Licensors in this Section is a covenant running with the land for the benefit of the Licensed Premises.

24. **Quiet Enjoyment.** Licensors covenants that Licensee, on paying Rent and performing the covenants of this Agreement, shall peaceably and quietly have, hold and enjoy the Licensed Premises and Access/Utility Licenses.

25. **Mortgages.** This Agreement, Licensee's interest in the Licensed Premises and the Access/Utility Licenses shall be subordinate to any mortgage given by Licensor which currently encumbers the Licensed Premises, provided that any mortgagee shall recognize the validity of this Agreement in the event of foreclosure. In the event that the Licensed Premises is or shall be encumbered by such a mortgage, Licensor shall obtain and furnish to Licensee a mutually agreed upon non-disturbance agreement for each such mortgage, in recordable form. The cost to obtain such non-disturbance agreement shall be paid by Licensee if the mortgage or other encumbrance predates this Agreement.

26. **Title Insurance.** Licensee, at Licensee's option, may obtain title insurance on each of the Licensed Premises and Access/Utility Licenses outside the public rights-of-way at Licensee's sole cost and expense. Licensor shall reasonably cooperate with Licensee's efforts to obtain title insurance by executing documents or obtaining requested documentation as required by the title insurance company.

27. **Default.**

a. Notice of Default; Cure Period. If there is a default by Defaulting Party with respect to any of the provisions of this Agreement or the Defaulting Party's obligations under this Agreement, the Non-Defaulting Party shall give the Defaulting Party written notice of such default. After receipt of such written notice, the Defaulting Party shall have thirty (30) days in which to cure any monetary default and sixty (60) days in which to cure any non-monetary default. The Defaulting Party shall have such extended periods as may be required beyond the sixty (60) day cure period to cure any non-monetary default if the nature of the cure is such that it reasonably requires more than sixty (60) days to cure, and the Defaulting Party commences the cure within the sixty (60) day period and thereafter diligently pursues the cure to completion. The Non-Defaulting Party may not maintain any action or effect any remedies for the default against the Defaulting Party unless and until the Defaulting Party has failed to cure the same within the time periods provided in this Section.

b. [intentionally omitted from this Agreement]

c. [intentionally omitted from this Agreement]

d. No Consequential Damages. Without limiting any indemnification obligations of Licensor or Licensee or other waivers contained in this Agreement and as a material part of the consideration for this Agreement, Licensor and Licensee fully release, waive and discharge forever any and all claims against the other for consequential and incidental damages arising out of this Agreement, including without limitation any lost profits arising from the disruption to Wireless Telecommunications Facilities, any interference with uses conducted by Licensee under this Agreement, regardless of the cause, and whether or not due to the active or passive negligence or willful misconduct, and covenants not to sue for such damages the other party or their respective employees, directors, officers, officials or agents.

28. **Force Majeure.** If an event or condition constituting a "force majeure"—including, but not limited to, an act of God, labor dispute, civil unrest, epidemic, or natural disaster—prevents or delays either the Licensor or the Licensee from performing or fulfilling an obligation under this Agreement, said party is not in default, under Section 27 of this Agreement, of the obligation. A delay beyond a party's control automatically extends the time, in an amount equal to the period of the delay, for the party to perform the obligation under this Agreement. Licensor and Licensee shall prepare and sign an appropriate and mutually acceptable document acknowledging any extension of time under this Section 28.

29. **Applicable Law.** This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State where the Licensed Premises is located. The parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange.

30. **Assignment, Sublease, Licensing and Encumbrance.** Licensee may assign this Agreement to a person or entity with demonstrated capacity to carry out Licensee's obligations under this Agreement, subject to Licensors' prior written consent, which shall not be unreasonably withheld or delayed. Subject to the terms and conditions in this Agreement and Licensors' prior written consent, which Licensors shall not be entitled to condition on any additional monetary consideration, Licensee may enter into sublicenses to allow a Sublicensee to utilize and operate from the Licensed Premises, so long as such Sublicensee is a provider of services that utilize Wireless Telecommunications Facilities.

31. **Miscellaneous.**

a. Entire Agreement. Licensors and Licensee agree that this Agreement, together with that certain Wireless Marketing Agreement dated _____, 2017 between Licensors and Licensee, contain all of the agreements, promises and understandings between Licensors and Licensee with regard to the Licensed Premises. No oral agreements, promises or understandings shall be binding upon either Licensors or Licensee in any dispute, controversy or proceeding at law. Any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing and signed by the parties hereto.

b. Captions. The captions preceding the Sections of this Agreement are intended only for convenience of reference and in no way define, limit or describe the scope of this Agreement or the intent of any provision hereof.

c. Construction of Document. Licensors and Licensee acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said party being the drafter and that this Agreement shall not be construed as a binding offer until signed by Licensee. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

d. Notices. All notices hereunder shall be in writing and shall be given by (i) established national courier service which maintains delivery records, (ii) hand delivery, or (iii) certified or registered mail, postage prepaid, return receipt requested. Notices are effective upon receipt, or upon attempted delivery if delivery is refused or if delivery is impossible because of failure to provide reasonable means for accomplishing delivery. The notices shall be sent to Licensors at Licensors' Notice Address and to Licensee at Licensee's Notice Address.

e. Partial Invalidity. If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

f. IRS Form W-9. Licensors agree to provide Licensee with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Licensee. In the event that Licensors' Property is transferred, the succeeding Licensors shall have a duty at the

time of such transfer to provide Licensee with a completed IRS Form W-9, or its equivalent, and other related paper work to effect a transfer in Rent to the succeeding Licensor. Licensor's failure to provide the IRS Form W-9 within thirty (30) days after Licensee's request shall be considered a default and Licensee may take any reasonable action necessary to comply with IRS regulations including, but not limited to, withholding applicable taxes from Rent payments.

g. Attorneys' Fees. In the event that either party prevails in an action to enforce its rights under this Agreement, the prevailing party shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action.

h. Survival. Expiration or earlier termination of this Agreement will not affect the right of either party to enforce any and all indemnities and representations and warranties given or made to the other party under this Agreement, or any provision of this Agreement that expressly survives termination or expiration, or by its sense or context contains an obligation that either should survive expiration or termination or would necessarily be performed after expiration or termination.

i. Waivers. No failure by either party to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by Licensor of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of Licensor's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either party of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A party's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting party's consent in any other or future instance under the terms of this Agreement.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, Licensor and Licensee having read the foregoing and intending to be legally bound hereby, have executed this Agreement as of the day and year this Agreement is fully executed.

“LICENSOR”
City of Irvine,
a chartered California municipal corporation

Date: _____

By: _____

Title: _____

ATTEST:

APPROVED AS TO FORM:

“LICENSEE”
XG COMMUNITIES, LLC,
a Delaware limited liability company,
dba 5 BARS COMMUNITIES

Date: _____

By: _____

Title: _____

APPROVED AS TO FORM:

EXHIBIT “A-1”

LICENSED PREMISES & LICENSOR’S PROPERTY

EXHIBIT "A-2"

INSURANCE REQUIREMENTS

Without limiting Licensee's indemnification obligations, Licensee shall procure and maintain and shall cause all contractors, subcontractors and Sublicensees to procure and maintain (Licensee and/or sublicensees shall be referred to hereinafter, as the context dictates, as "**Contractor**"), prior to any activities on Licensor's Property in connection with the Agreement, for the duration of the Agreement and any applicable sublicense entered into under and/or pursuant to the Agreement, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Licensee, a sublicensee, its agents, representatives, or employees as provided below:

Insurance Coverage Required

The policies and amounts of insurance required hereunder shall be as follows:

1. **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Contractor's performance of this Agreement. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (1) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
2. **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
3. **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Contractor providing any service in the performance of this Agreement. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("SCIF") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.
4. **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Agreement and delete any exclusion that may

potentially affect the work to be performed. Contractor shall provide to Licensor and to the City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy endorsements no later than five (5) business days prior to commencement of any work to be performed under this Agreement and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by Licensor. At the option of Licensor, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects Licensor, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The Licensor, its officers, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to Licensor, its officers, officials, employees or volunteers.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects Licensor, its officers, employees and volunteers. Any insurance or self-insurance maintained by Licensor, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to Licensor, its officers, officials, employees or volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to Licensor.
6. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all additional insured endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Acceptability for Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines brokers under applicable provisions of the California Insurance Code or any federal law, unless otherwise acceptable to Licensor.

Verification of Coverage

Contractor shall furnish Licensor with original endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by Licensor. All endorsements are to be received and approved by Licensor before work commences. As an alternative to Licensor's forms, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.

Subcontractors

5 BARS shall be responsible for causing any and all contractors and subcontractors in connection with this Agreement to maintain the same types and limits of coverage in compliance with this Agreement, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

EXHIBIT B

RIGHT OF ENTRY AGREEMENT

This Right of Entry Agreement (this “**Agreement**”) is made as of the date of the final signature below, by and between the City of Irvine, a chartered California municipal corporation, with an address at One Civic Center Plaza, Irvine, California 92623-9575 (“**Grantor**”) and 5 Bars Communities a dba of XG Communities, LLC, a Delaware limited liability company, with an address at 19200 Von Karman Avenue, Suite 100, Irvine, CA 92612 (“**Grantee**”). Grantor and Grantee are sometimes collectively referred to as “**Parties**” or individually as “**Party**.”

RECITALS

- A. Grantor is the fee owner of record of that certain real property in the CITY not contained within the “Orange County Great Park” boundary (the “**Property**”).
- B. Grantor and Grantee have entered into that certain Wireless Marketing Agreement dated _____, 2017 (“**Marketing Agreement**”) pursuant to which Grantee has agreed to provide certain consulting, marketing and management services relating to the placement of Wireless Telecommunications Facilities on some of the Property.
- C. Subject to the terms and conditions in the Marketing Agreement, which includes without limitation Grantee’s delivery of all required insurance certificates, endorsements and other documentation, Grantor and Grantee have agreed to enter into this Agreement so that Grantee may enter upon the Property, upon 24-hour written notice to Grantor, to inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of the Property, to apply for and obtain all licenses and permits required for Grantee’s use of the designated Property from all applicable governmental or regulatory entities, and to do those things on or off the designated Property that are reasonably necessary to determine the physical condition of designated Property, the environmental history of the designated Property, and the feasibility or suitability of the designated Property for Grantee’s use (“**Due Diligence Investigation**”).

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions contained herein, and other good and valuable consideration, the receipt and sufficiency of which is acknowledged by each of the Parties, the Parties agree as follows:

AGREEMENT

- Right of Entry.** Subject to the terms and conditions in this Agreement and the Marketing Agreement, Grantor hereby grants to Grantee and its agents, employees, contractors, subcontractors and volunteers non-exclusive permission to enter over and across, as well as to temporarily use the Property, as is reasonable and necessary, for the express and sole purpose of conducting, at Grantee’s sole expense, the Due Diligence Investigation.
- Term.** The right of entry granted pursuant to Section 1, above, shall be for a limited term, commencing as of the date of this Agreement and expiring upon the expiration or earlier termination of the Marketing Agreement.
- Entry at Own Risk; No Duty to Warn.** Grantee and its agents, employees, contractors, subcontractors and volunteers shall access, enter and use the Property at their own risk and peril. Grantor shall have no duty to inspect the Property (or any portion thereof) and no duty to warn of any latent or patent defect, condition or risk which may exist on the Property.

4. **Liens.** Grantee shall not permit to be placed against the Property, or any part thereof, any mechanics', materialmen's, contractors' or other liens (collectively, "**Liens**") arising out of the acts or omissions of the Grantee or its agents, employees, contractors, subcontractors or volunteers hereunder. Grantee shall inform each and every contractor and material supplier that provides any work, service, equipment or material to Grantee in any way connected with Grantee's use of the Property that the Property is public property and is not subject to mechanics' liens or stop notices for equipment or other materials or services provided for the Due Diligence Investigation. Grantee hereby indemnifies and agrees to hold the Grantor and the Property free and harmless from all liability for any and all such Liens, together with all costs and expenses, including, but not limited to, attorneys' fees and court costs reasonably incurred by Grantor in connection therewith. In the event that any Liens are placed on the Property, Grantee shall, at Grantee's sole cost and expenses, remove or cause the removal of all such Liens within.

5. **Hazardous Substances.** Grantee and its agents, employees, contractors, subcontractors and volunteers shall not use, store or transport or allow the use, storage or transportation of any substance which is designated, defined, classified or regulated as a hazardous substance, hazardous material, hazardous waste, pollutant or contaminant under any environmental law, as currently in effect or as hereafter amended or enacted; a petroleum hydrocarbon, including crude oil or any fraction thereof and all petroleum products; polychlorinated biphenyls ("**PCBs**"); lead; asbestos; flammable explosives; infectious materials; or radioactive materials (collectively, "**Hazardous Materials**") on or onto the Property. If Grantee breaches any of its obligations contained in this Section 5, or if any act, omission, or negligence of Grantee or any of its employees, contractors, subcontractors or agents results in any contamination of the Property, or in any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing on, under or about Property or the environment ("**Release**") of Hazardous Material from, on, about, in or beneath any part of the Property, or the violation of any environmental law, then Grantee, on behalf of itself and its successors and assigns, shall indemnify, defend and hold harmless Grantor, including the its employees, representatives, officers and agents, and their respective successors and assigns from and against any and all claims (including damages for decrease in value of the Property, the loss or restriction of the use of usable space in the Property and sums paid in settlement of claims, attorneys' fees, consultants' fees and experts' fees and related costs) arising during or after the Term of this Agreement relating to such Release or violation of environmental laws; provided, however, Grantee shall not be liable for any claims to the extent such Release was caused by the gross negligence or willful misconduct of the Licensor or its employees, representatives, officers and agents. Grantee's indemnification obligation includes costs incurred in connection with any activities required to investigate and remediate any Hazardous Material brought onto the Property by Grantee or any of its employees, contractors, subcontractors or agents and to restore the Property to its condition prior to Grantee's introduction of such Hazardous Material or to correct any violation of environmental laws. Grantee specifically acknowledges and agrees that it has an immediate and independent obligation to defend Grantor and the other indemnified parties from any claim that actually or potentially falls within this indemnity provision even if the allegations supporting the claim are or may be groundless, fraudulent or false, which obligation arises at the time such claim is tendered to Grantee by the indemnified party and continues until the claim is finally resolved. Without limiting the foregoing, if Grantee or any of its employees, contractors, subcontractors or agents causes the Release of any Hazardous Material on, about, in, or beneath the Property, then in any such event Grantee shall, immediately, at no expense to any indemnified party, take any and all necessary actions to return the Property, as applicable, to the condition existing prior to the Release of any such Hazardous Materials on the Property or otherwise abate the Release in accordance with all environmental laws, except to the extent such Release was caused by the gross negligence or willful misconduct of Grantor or its employees, representatives, officers and agents. Grantee shall afford Grantor a full opportunity to participate in any discussions with regulatory agencies regarding any settlement agreement, cleanup or abatement agreement, consent decree or other compromise or proceeding involving Hazardous Material.

6. **Restoration of the Property.** Grantee shall, at its own cost and expense, restore the Property to the same condition in which it was prior to Grantee's entry. In the event that Grantee's Due Diligence Investigation continues for more than one (1) day, Grantee shall not leave the Property in an unsafe condition.

7. **Indemnification by Grantee.** Grantee shall indemnify, defend, and hold Grantor and its employees, representatives, officers and agents (collectively hereinafter "**City Personnel**") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (hereinafter "**claims**" or "**liabilities**") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Grantee, its employees, agents, representatives or subcontractors which directly or indirectly relate to the work being performed or services being provided under this Agreement, whether or not there is concurrent active or passive negligence on the part of Grantor and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of Grantor or City Personnel in connection therewith: (a) Grantee shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith; (b) Grantee shall promptly pay any judgment rendered against Grantor or any City Personnel for any such claims or liabilities; and (3) in the event Grantor and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the work being performed or services being provided under this Agreement, Grantee shall pay to Grantor any and all costs and expenses incurred by Grantor or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees. Notwithstanding the foregoing, Grantee shall have no obligation to indemnify Grantor for claims related to the gross negligence or willful misconduct of Grantor.

8. **Authority to Execute.** Grantor(s) warrants and represents to Grantee that he/she/it/they is/are the sole owner(s) of the Property and may execute and approve this Agreement and no permission or consent of any other person is required to approve this Agreement, or that any such permission or consent has been obtained.

9. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

10. **Entire Agreement.** This Agreement and the Marketing Agreement contain the entire agreement between the Parties. No representations or covenants of any kind other than those expressly contained herein and in the Marketing Agreement have been made by either party hereto. This Agreement may only be modified or amended by an agreement in writing duly executed and delivered by each of the parties hereto.

11. **Severability.** If any provision of this Agreement or the application thereof to any person, entity or circumstance is invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Agreement will be valid and be enforced to the full extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

12. **Permits.** Prior to beginning any Due Diligence Investigation, Grantee, at its sole expense, shall obtain all necessary permits to conduct the Due Diligence Investigation.

13. **All Expenses To Be Borne by Licensee.** Grantee shall bear any and all costs and expenses associated with the rights granted to Grantee to conduct the Due Diligence Investigation, or any costs or expenses incurred by Grantor relating to Grantee's use of the Property in the performance of the Due Diligence Investigation.

14. **Hours of Operation.** The hours of operation that Grantee shall be permitted to conduct its Due Diligence Investigation shall be between 7 am and 5 pm, Monday through Friday. No weekend work shall be permitted.

15. **Governing Law; Venue; Attorneys' Fees.** This Agreement shall be governed in accordance with the laws of the State of California. The Parties agree that the venue for any litigation regarding this Agreement shall be in the California Superior Court for the County of Orange. In the event that either Party prevails in an action to enforce its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, incurred in connection with such action

16. **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original and which together shall constitute a single agreement.

17. **Waivers.** No failure by either Party to insist upon the strict performance of any obligation of the other under this Agreement or to exercise any right, power or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by Grantor of full or partial payment of Rent during the continuance of any such breach will constitute a waiver of such breach or of Grantor's right to demand strict compliance with such term, covenant or condition, or operate as a waiver of any requirement of this Agreement. No express waiver by either Party of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. A Party's consent given in any instance under the terms of this Agreement will not relieve the other party of any obligation to secure the consenting Party's consent in any other or future instance under the terms of this Agreement.

18. **Construction of Document.** Grantor and Grantee acknowledge that this document shall not be construed in favor of or against the drafter by virtue of said Party being the drafter. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.). The use of the term "including," "such as," or words of similar import when following any general or specific term, statement or matter may not be construed to limit the term, statement or matter to the stated terms, statements or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest scope of the term, statement or matter.

19. **Insurance.** Prior to commencing any Due Diligence Investigation on the Property, Grantee shall deliver to Grantor all insurance certificates, endorsements and other documentation required under the Marketing Agreement. Notwithstanding anything in this Agreement or the Marketing Agreement to the contrary, Grantee shall have no right to enter any Property or conduct any activities on any Property until and unless Grantee performs its obligations under this Section 19.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date first set forth above.

“GRANTOR”
City of Irvine,
a chartered California municipal corporation

Date: _____

By: _____

Title: _____

ATTEST:

APPROVED AS TO FORM:

“GRANTEE”
XG COMMUNITIES, LLC,
a Delaware limited liability company,
dba 5 Bars Communities

Date: _____

By: _____

Title: _____

APPROVED AS TO FORM:

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting 5 BARS' indemnification obligations, 5 BARS shall procure and maintain and shall cause all contractors, subcontractors and Sublicensees to procure and maintain (5 BARS and/or sublicensees shall be referred to hereinafter, as the context dictates, as "**Contractor**"), prior to any activities on City Property in connection with the Agreement, for the duration of the Agreement and any applicable sublicense entered into under and/or pursuant to the Agreement, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the 5 BARS, a sublicensee, its agents, representatives, or employees as provided below:

Insurance Coverage Required

The policies and amounts of insurance required hereunder shall be as follows:

1. **Comprehensive General Liability Insurance** which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 00 01 including completed operations and contractual liability, with limits of liability of not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate for liability arising out of Contractor's performance of this Agreement. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set forth above. If written with an aggregate, the aggregate shall be double the each occurrence limit. Such insurance shall be endorsed to: (1) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
2. **Automobile Liability Insurance** with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. The limits shall be provided by either a single primary policy or combination of policies. If limits are provided with excess and/or umbrella coverage the limits combined with the primary will equal the minimum limits set above. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles or coverage for "any auto." Such insurance shall be endorsed to: (a) name the City of Irvine and employees, representatives, officers and agents as additional insured for claims arising out of Contractor's performance of this Agreement; and (b) provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement.
3. **Workers' Compensation Insurance** in accordance with the Labor Code of California and covering all employees of Contractor providing any service in the performance of this Agreement. Such insurance shall be endorsed to waive the insurer's right of subrogation against the City of Irvine and employees, representatives, officers and agents. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement, unless your insurance carrier is the State of California Insurance Fund ("SCIF") and the endorsement numbers 2570 and 2065 are referenced on the certificate of insurance.
4. **Professional Liability Insurance** with minimum limits of \$1,000,000 each claim. Covered professional services shall include all work performed under this Agreement and delete any exclusion that may potentially affect the work to be performed. Contractor shall provide to Licensor and to the City of Irvine a Certificate(s) of Insurance evidencing such coverage together with copies of the required policy

endorsements no later than five (5) business days prior to commencement of any work to be performed under this Sublicense and at least fifteen (15) business days prior to the expiration of any policy. Coverage shall 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 thereof given by the insurer to the City of Irvine by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City, its officers, officials, employees or volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.
6. A statement on an insurance certificate will not be accepted in lieu of the actual endorsement. Insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City of Irvine for approval. Further, all additional insured endorsements shall not: (1) be limited to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Sublicensee; (4) contain any other exclusion contrary to this Sublicense.

Acceptability for Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or higher and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus lines

brokers under applicable provisions of the California Insurance Code or any federal law, unless otherwise acceptable to the City.

Verification of Coverage

Contractor shall furnish the City with original endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by the City. All endorsements are to be received and approved by the City before work commences. As an alternative to the City's forms, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.

Subcontractors

5 BARS shall be responsible for causing any and all contractors and subcontractors in connection with this Agreement to maintain the same types and limits of coverage in compliance with this Agreement, including naming the City of Irvine as an additional insured to the contractor's or subcontractor's policies. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

EXHIBIT “D”

ADDITIONAL SERVICES TO BE PROVIDED BY 5 BARS

Inventory of Existing sites by Carrier (within 60 days of commencement).

- Develop a database and base map with carrier, address and geo-coordinates, project description, date of approved, type of facility, pictures of existing site, link to resolution (conditions of approval) or letter approving the site.

Inventory of City-owned Property (within 60 days of commencement).

- Develop a database and a base map of potential wireless facility sites. Database to include: individual sites, description of site, suitability for wireless facility, type of potential wireless facility, and description of potential issues.
- Develop a process for reviewing and approving sites, including leasing criteria, design standards, and public review procedures.

Develop Master Plan and Evaluate Cellular Opportunities Citywide (excluding Great Park)

- Develop proposed aesthetic threshold levels for equipment that would be used in the proposed strategy to guide the approval process (e.g. administrative approval versus public hearing).
- Provide guidelines for reviewing carrier and network proposals for equipment placement.
- Recommend a process to handle third party operator site leasing and locating.
- Analyze the advantages and disadvantages of the various business models used to deploy and manage wireless infrastructure and make a recommendation.
- Potential business options should include the City-owned and managed, privately-owned and managed, and City-private partnership (hybrid) models.

Technological Solutions for Future Wireless Network in Public ROW (within 90 days of commencement).

- Prepare an inventory of streetlights, traffic signals or other vertical elements in the ROW.
- Prepare an inventory of underground fiber and conduit.
- Prepare a technical analysis/feasibility study of potential ownership models for streetlights (e.g. SCE, City, third party, or combination) and assist the City in negotiations to acquire SCE streetlights or other vertical elements in the ROW.
- Prepare a technical analysis/feasibility study of using City-owned traffic signals and existing fiber to enhance wireless communication.

All technical analysis should account for the future sizing/scaling of the network to minimize community disruption. The plan analysis should also account for phasing-in or phasing-out of wireless facilities when technological advances occur.

Zoning Ordinance Amendments for ROW facilities.

- Develop proposed design standards including:
 - maximum pole heights and diameters;

- maximum size of antenna panels and radomes;
- location of radio equipment;
- location of meter pedestals or standards to require flat rate power or pole-mounted meters to discourage new meter pedestals;
- colors and materials to match surrounding poles;
- underground cabling requirements;
- measures to preclude exposed wires; and
- ground-vault standards, including above-ground vent standards.

Changes to City Application Requirements/Procedures/Application Forms/Intake Procedures

- Develop proposed standardized application forms/lease agreements. Documents should cover:
 - liability;
 - rights of access;
 - traffic control measures;
 - hours of operation for construction and maintenance;
 - fees;
 - insurance Requirements;
 - terms; and
 - measures to re-open when new micro-scale technologies become available.

Optional Fiber Master Plan Services

At the City's option, and subject to the terms and conditions in this section, 5 Bars shall perform the following tasks:

- **Develop Master Plan and Evaluate Cellular and Wi-Fi Opportunities Citywide (excluding Great Park)**
 - Evaluate current and future wireless infrastructure requirements to support cellular communications, Wi-Fi communications, and future technologies.
 - Identify operational, security, and infrastructure deficiencies within the existing wireless infrastructure and recommend solutions to overcome those deficiencies.
 - Develop wireless security and reliability criteria.
 - Evaluate and identify opportunities for future wireless needs.
 - Review available City-owned assets and infrastructure to support Networks.
 - Develop an implementation strategy with cost estimates to maintain and expand capabilities
 - Propose alternative options and highlight strengths and weaknesses.
 - Develop a master plan for Cellular and Wi-Fi.
- **Develop Master Plan and Evaluate Network Infrastructure Citywide (excluding Great Park)**
 - Evaluate current and future network infrastructure requirements.
 - Evaluate existing infrastructure and recommend design enhancements based on future needs and new technologies.
 - Develop network security and reliability criteria.
 - Develop an implementation strategy with cost estimates to maintain and expand capabilities.
 - Evaluate and recommend network hardware and software.
 - Assess the existing fiber infrastructure and recommend enhancements based current requirements and future growth
 - Develop a master plan for Network Infrastructure.

The City may elect to require 5 Bars to perform all or some of the foregoing tasks by written notice to 5 Bars (the “**Notice**”). Within 90 days after 5 Bars receives the Notice, 5 Bars shall submit a written proposal to the City that outlines (i) the tasks to be performed, (ii) the persons or entities that will perform such tasks, and (iii) the total cost to complete such tasks. Upon the City’s written approval of 5 Bars’ written proposal, 5 Bars shall perform or cause the performance of the foregoing tasks within 180 days from the City’s written notice (or such longer period as the City may approve in writing). The City shall have 30 days to inspect the work product delivered by 5 Bars and either accept, reject or require changes to the same.

5 Bars shall pay all costs associated with the foregoing tasks; provided, however, that 5 Bars shall be entitled to keep an additional 10% of recurring gross payments that are received by 5 BARS that would be otherwise payable to the City until 5 Bars recoups its actual, reasonable, documented and City-approved costs to perform the tasks requested by the City. In the event that recurring gross payments are insufficient to recoup the costs associated with the foregoing tasks, the City shall directly reimburse 5 Bars for the balance of its actual, reasonable, documented and City-approved costs to perform the tasks requested by the City within 24 months after the City approves the work product delivered by 5 Bars. In any case, the parties shall memorialize the reimbursement arrangement in a separate writing.



CITY OF IRVINE BUDGET ADJUSTMENT REQUEST FORM

Department: Administrative Services
Requestor: Khaled Tawfik

Finance Comm. Date: _____
City Council Date: July 25, 2017

Approval Exception (A - O): _____
(see Financial Policies - Budget Adjustment)

Finance Use Only - Batch Record Number	
GL	_____
JL	_____
Posting Date	_____
Posted by	_____ /date

Reason Code: _____

Explanation for Request:

Contract for the Wireless Infrastructure Masterplan with 5 BARS Communities, LLC

Approvals:

Department Approval _____ Date _____

Budget Office Approval _____ Date _____

Fiscal Services Approval _____ Date _____

City Manager Approval _____ Date _____

REVENUES AND TRANSFERS-IN

Fund #	Account Number				Amount
	GL		JL		Increase or (Decrease)
	Org Key	Object Code	Job Key	Object Code	
001	0100000099	3632			150,000
Subtotal					150,000

EXPENDITURES AND TRANSFERS-OUT

Fund #	Account Number				Amount
	GL		JL		Increase or (Decrease)
	Org Key	Object Code	Job Key	Object Code	
001	0111316499	4310	718xxxxxxx	4310	150,000
Subtotal					150,000

CHANGE TO FUND BALANCE

Fund #	Account Number				Amount
	GL		JL		Increase or (Decrease)
	Org Key	Object Code	Job Key	Object Code	
Subtotal					0

No Change In Fund Balance

2.6



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: July 25, 2017

TITLE: CONSIDERATION OF A POLICY FOR POSTING DEPOSITION
TRANSCRIPTS ON THE CITY WEBSITE



Deputy City Manager



City Manager

RECOMMENDED ACTION

Adopt the attached policy related to the timing of posting deposition transcripts on the City's website, consistent with California Code of Civil Procedure section 2025.520.

EXECUTIVE SUMMARY

On August 9, 2016, the California State Auditor (CSA) issued its audit report regarding the Orange County Great Park review. In its report, the CSA recommended that the City establish a policy related to posting deposition transcripts on the City's website consistent with the California Code of Civil Procedure. The City Council committed to adopting a policy not to publicly post deposition transcripts until the deponent has either signed, or failed to sign by an established deadline, the deposition transcript (Attachment 2). Approving the attached would establish a City policy related to posting deposition transcripts on the City's website in a manner consistent with California Code of Civil Procedure section 2025.520 (Attachment 1 and 3). If adopted, this action will be reported in the annual report due to the CSA by August 9, 2017.

Report prepared by: Michelle Grettenberg, Deputy City Manager

ATTACHMENTS

1. Draft Policy related to Posting Deposition Transcripts on the City Website
2. City of Irvine Letter to California State Auditor
3. California Code of Civil Procedure section 2025.520

City Council Policy / Procedure

Subject: **Posting Deposition Transcripts on the City Website**

Reference: California State Auditor Recommendation
Minute Order XX-XX-XX

Purpose

Establish best practices for posting deposition transcripts on the City's website.

Background

The California State Auditor recommended that the City establish a policy related to the timing of its posting deposition transcripts on the City's website, in a manner consistent with California Code of Civil Procedure 2025.520 and the City Council has committed to doing so.

Policy/Procedure

If the City Council determines that it is appropriate and/or necessary to publish online deposition transcripts produced in response to a request made by or to the City, such publication shall occur only after the deponent has had adequate opportunity to review and sign his/her deposition, or failed to sign, within the timeframes established in California Code of Civil Procedure Section 2025.520.



Steven S. Choi, Ph.D., Mayor

cityofirvine.org

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575

949-724-6233

June 28, 2016

Ms. Elaine M. Howle
California State Auditor
621 Capital Mall, Ste. 1200
Sacramento, CA 95814

Re: **California State Auditor Report re: Great Park Review**

Dear Ms. Howle:

On behalf of four of the five members of the Irvine City Council (Councilmember Krom dissenting), this letter constitutes the City of Irvine's ("Irvine" or the "city") response to the June 24, 2016 draft of the California State Auditor's ("CSA") Report titled "City of Irvine: Poor Governance of the \$1.7 Million Review of the Orange County Great Park Needlessly Compromised the Review's Credibility" (the "Report").

It is important that the city provide context that is not adequately conveyed in the Report. While the Report acknowledges that more than \$200 million was spent planning and developing the Orange County Great Park over the last decade, the Report does not sufficiently convey the magnitude of constituents' concerns about those expenditures. Irvine's constituents have repeatedly and forcefully called on the city to explain and justify the extraordinary cost. The public's interest in those questions was particularly acute during the 2012 election cycle. Therefore, the newly-constituted City Council of the City of Irvine ("City Council") responded to the public's concerns by unanimously approving a review and analysis of Great Park expenditures (the "Great Park Review") at the first substantive City Council meeting after the November 6, 2012 election. As it has done on many prior occasions, the City Council also unanimously voted to form a subcommittee to oversee the review.

These circumstances and the Great Park Review were extraordinary and unique. The city retained the accounting firm Hagan, Streiff, Newton & Oshiro Accountants, PC ("HSNO") and special counsel Aleshire & Wynder, LLP ("Aleshire") to conduct the Great Park Review. They were asked to review more than \$200 million in expenditures, the performance and cost of third party contractors, and the performance of city staff and officials who worked on the Great Park. HSNO & Aleshire reviewed tens of thousands of pages of documents, analyzed scores of contracts, and conducted hundreds of hours of interviews and depositions over approximately two years. The assignment was

ATTACHMENT 2

enormous. Using a comparison to illustrate the point, the CSA has spent six months and thousands of hours fulfilling its audit objectives—which focus on three contracts performed over two years—and preparing its Report.

Another undertaking like the Great Park Review is highly unlikely. Consequently, the Great Park Review is a poor case study upon which to recommend sweeping changes to the city's policies, procedures, and practices. The city's responses to the CSA's recommendations reflect this reality.

Next, the city has considered the Report's findings and recommendations in the context of the CSA's audit objectives. As indicated in Table 2 of the Report, the Joint Legislative Audit Committee directed the CSA to study nine discreet "audit objectives," and one "catch all" objective that the CSA used to analyze two more issues. Out of eleven issues, the CSA has made ten recommendations that primarily pertain to two general topics: (1) issues related to whether the services of HSNO and Aleshire conformed to appropriate audit standards; and (2) issues related to the city's procurement and oversight of the contractors.

But the Report also includes important facts that validate the city's governance:

- The CSA did not find any violation of relevant state laws and regulations;
- The CSA did not identify any violations of law pertaining to the selection of accountants, attorneys, and the private judge who assisted the city with the Great Park Review;
- The CSA did not find that the audit subcommittee unfairly characterized the nature of work performed by HSNO and Aleshire;
- The CSA did not find that the city violated any open meeting laws;
- The CSA did not find that the city used its subpoena power in a manner that violated applicable laws, regulations, and policies;
- The CSA did not find that the city misused state funds in connection with the Great Park Review;
- The CSA did not find any evidence that the city released the results of the Great Park review and related deposition transcripts to influence the 2014 election;
- The CSA did not find any violations of whistle-blower laws;
- The CSA did not find any evidence that the City paid for work of a retired judge that was outside the scope of her contract; and
- Nothing in the Report challenges, questions, or undermines the accuracy of the conclusions reached by HSNO and Aleshire in their March 2015 reports.

In light of these important findings, the Report's title—"City of Irvine: Poor Governance of the \$1.7 Million Review of the Orange County Great Park Needlessly Compromised the Review's Credibility"—does not reflect the totality of the Report and is unnecessarily incendiary.

The CSA also concludes in the Report that various aspects of the city's procurement of HSNO and Aleshire, including the standards to which they were directed to adhere, undermined public confidence in the audit process by decreasing transparency. These conclusions are outside the scope of the CSA's prescribed audit objectives. Nothing in the audit objectives calls upon the CSA to measure or opine on public confidence in the Great Park Review.

The conclusions regarding public confidence are also unsubstantiated. The Report does not include any data demonstrating either (1) an actual erosion of public confidence in the Great Park Review; or (2) a causal link between the circumstances addressed in the Report and public confidence. As an example, the CSA has not identified any data or facts demonstrating that HSNO's adherence to the American Institute of Certified Public Accountants ("AICPA") standards either diminished public confidence or compromised HSNO's objectivity.

Moreover, the Great Park Review was highly transparent. The City Council conducted several public meetings to address preliminary reports of HSNO and Aleshire that were broadcast on television. In response to Public Records Act requests, the city produced thousands of pages of documents related to the Great Park Review. Witness testimony was made available on the city's website on a rolling basis. During the review, no one raised concerns about the transparency of city's procurement of HSNO or Aleshire. Finally, the CSA itself did not find any instance in which the city violated open meeting laws and regulations.

Hence, although it may be the CSA's opinion that adopting the recommendations in the Report *might* enhance transparency or public confidence, Irvine does not accept the CSA's over-arching theme that the city's actions compromised the integrity of, or diminished public confidence in, the Great Park Review.

Similarly, many of the recommendations in the Report are presented as "best practices." It is unclear what sources the CSA has used to identify purported "best practices," and the Report often does not include supporting data or authorities on these points. Indeed, the Report is want of references to treatises, journal articles, or theses on city governance, and it provides only a few specific examples of practices used in other cities. It is also not clear that any members of the audit team have acquired practical experience managing the day-to-day operations or serving on the governing body of a city comparable to Irvine.

Finally, the Report states twice that the members of the subcommittee failed to “add value” to the Great Park Review. These statements are both outside the scope of the CSA’s audit objectives and too vague to constitute a credible finding or conclusion under Generally Accepted Auditing Standards (“GAGAS”).¹ The audit objectives do not contemplate a subjective “value-added” assessment of the subcommittee’s performance. The Report does not indicate what other “value” the subcommittee could and should have contributed to the review, what methodology the CSA used to objectively assess the subcommittee’s “value,” or the CSA’s qualifications to subjectively evaluate the subcommittee members’ contributions to the Great Park Review. Moreover, the city disagrees with the CSA. The subcommittee fulfilled its responsibility to oversee HSNO & Aleshire during the Great Park Review.

The City of Irvine’s Initial Responses To The CSA’s Recommendations

Recommendation No. 1: *To ensure that local government audits are conducted with independence and rigor, beginning immediately Irvine should incorporate into its RFPs and contracts the requirement that consultants follow appropriate, sufficient audit standards when performing audit services.*

Irvine will implement Recommendation No. 1 by ensuring that, when applicable, future requests for proposals (“RFPs”) for auditing and consulting services expressly identify the specific standard that Irvine intends for the contractor to apply. In so doing, Irvine will require contractors to perform work in accordance with GAGAS when appropriate.

To be clear, however, Irvine’s decision to conduct the Great Park Review pursuant to AICPA standards did not violate any state laws and was reasonable under the circumstances. Although several state laws provide that certain audit activities must be conducted under either GAGAS or standards prescribed by the Institute of Internal Auditors, none of those laws governed the Great Park Review conducted by HSNO and Aleshire (see, e.g., Gov’t. Code §§ 1236 (audits conducted by city employees); 15286 (school bond monies); 53130 (federally-mandated block grant funds); § 12410.5 (audits prepared for transmission to the State Controller)). Furthermore, as noted in the Report, Irvine contracted for “consulting services,” as opposed to auditing services.

¹ Section 7.14 of GAGAS provides that “auditors should present sufficient, appropriate evidence to support the findings and conclusions in relation to the audit objectives.” Moreover, GAGAS requires that the elements of a finding—criteria, condition, effect, and cause—must be sufficiently developed to address audit objectives. (See GAGAS §§ 6.73-6.77.) Section 7.27 of GAGAS provides that “The strength of the auditors’ conclusions depends on the sufficiency and appropriateness of the evidence supporting the findings and the soundness of the logic used to formulate the conclusions.”

Moreover, the CSA did not find that HSNO failed to operate as a neutral, independent analyst, when adhering to the AICPA standards. As noted in Table 3 of the Report, the AICPA standards "require objectivity, which is the obligation to be impartial, intellectually honest, and free of conflicts of interest." In addition, HSNO has a legal obligation to comply with applicable professional standards and to be truthful regardless of whether it is conducting an audit or a review. To Irvine's knowledge, HSNO complied with all of these obligations.

Recommendation No. 2: *To improve fiscal accountability and to ensure that audits are performed to appropriate standards, Irvine should adopt an internal audit function by December 2017.*

The Report concludes that an internal audit function would have improved the Great Park Review. The Great Park Review, however, was itself an endeavor to improve fiscal accountability. It was conducted by a public accounting firm and law firm, in accordance with agreed-upon standards and procedures developed with the guidance and advice of external public accountants and auditors. After the city received this outside input, the City Council approved the RFP through which HSNO was retained and then HSNO's contract. Because the city adhered to this process, it is not apparent that an internal auditor would have performed unfilled functions or added demonstrable value.

Furthermore, as noted above, the Great Park Review was unique and the city is unlikely to undertake similar endeavors. Thus, Irvine does not agree that its experiences in this instance are a sufficient basis to expend public resources establishing and maintaining an internal audit function.

Recommendation No. 3: *To make certain that it conducts its competitive bidding process in a more transparent and fair manner, Irvine should do the following by December 2016:*

- a) Require city staff to include in every RFP the specified methodology for selecting contractors, and not to deviate from it without adequate notice to potential bidders. Further, Irvine should include this requirement in its contracting manual.*
- b) Examine and update its preferred selection criteria listed in its contracting manual and abide by this criteria when creating RFPs and evaluating bidders.*
- c) Irvine should further clarify the manner in which an interview may factor into the decision regarding how it will award a contract. Specifically, Irvine should include in its procedures whether an interview may change scores from an earlier phase of the proposal review process.*

Further, Irvine should include the details of how it will use interviews in its review process in the published RFP.

Irvine has already, and will continue to, implement Recommendation No. 3.

Although the city had procedures in place during the relevant timeframe, the city has since reviewed and enhanced its procurement procedures and supporting documents. Through these efforts, the city has already implemented the steps noted in subsections (a) and (b) of Recommendation No. 3. In September 2014, the city added detailed instructions regarding RFP selection criteria to the city's RFP checklist. These enhancements include providing the recommended weight to be given to preferred selection criteria. To ensure that the city's methodology and criteria are followed, staff members responsible for city purchasing now collaborate with project managers during the preparation of each and every RFP, by providing training and guidance and overseeing the procurement process.

To further implement Recommendation No. 3, the city will clarify its uniform procedures for addressing interviews in RFPs so that bidders will understand that an interview may affect the evaluation of their bids. This recommendation will be implemented by December 2016.

Recommendation No. 4: *To make certain that Irvine complies with the intent of competitive bidding for professional services, beginning immediately it should not include provisions in its RFPs for potential future services that are above and beyond the desired scopes of work.*

At the outset of the Great Park Review process, the City Council and staff members knew that the city would need additional reviews after the initial survey of contracts was completed. Therefore, even if the city had adhered to Recommendation No. 4, the city still would have retained HSNO to perform additional work on the Great Park Review.

The city disagrees with the CSA's conclusion that the RFP impacted the likelihood that HSNO would be selected for the additional work. The decision to award additional work to HSNO was the direct result of three factors—(1) HSNO's successful response to the initial RFP; (2) the City Council's assessment of HSNO's performance of the initial work; and (3) the reality that HSNO acquired unique knowledge in the course of performing the initial work, which made HSNO an attractive candidate capable of efficiently performing subsequent projects. The RFP did not preclude the city from contracting with another entity if the City Council was dissatisfied with HSNO's performance. The City Council's assessment of HSNO's performance was transparent. Before it allowed HSNO to perform additional services, the City Council reviewed HSNO's work product and awarded HSNO additional work during a televised public meetings.

The city's RFP also possessed advantages that would not exist in an RFP based on Recommendation No. 4. First, the city's RFP allowed the city to set rates when bidders were competing for the initial work and had an incentive to provide competitive pricing. Second, the city mitigated risk by preventing HSNO from raising its rates and diminishing efficiencies created by HSNO's knowledge of the underlying facts. In other words, in some instances, adherence to Recommendation No. 4 could eliminate efficiencies by giving leverage to a repeat bidder. Third, the RFP allowed the city to avoid the time and expenses associated with needlessly changing contractors.

In light of the foregoing, Irvine is not inclined to adopt Recommendation No. 4 as a policy. The city will, however, continue evaluating whether future service provisions should be included in RFPs on a case-by-case basis.

Recommendation No. 5: *To prevent contractors from exceeding their scope of service, Irvine should periodically review ongoing contract invoices and compare billed activities to the contractor's scope of work to be certain that they reflect the work Irvine expects the contractors to perform. Irvine should also ensure that it assigns to projects a staff project manager who can sufficiently and appropriately monitor contractors' work. In the future, if the council decides to limit or modify the existing authority of city officials relating to contract oversight, it should ensure that its resolutions explicitly delineate the limits or modifications to that authority.*

Irvine has, and will continue to, review contract invoices and compare billed activities to the contractors' scope of work. When doing so, Irvine will continue to utilize employees who can appropriately monitor contractors' work.

The staff took reasonable and appropriate steps to monitor contract performance during the Great Park Review. As acknowledged in the Report, the city monitored contract invoices and warned HSNO in June 2014 that the firm was not authorized to perform work in excess of \$400,000 without the City Council's approval. In so doing, the city explained to HSNO that it would risk not being paid if it performed unauthorized work. The city manager also prepared a specific form for monitoring HSNO's and Aleshire's work. The city manager intended for the form to allow staff to assist the subcommittee with budget management without interfering with the Great Park Review.² When the contractors' nevertheless performed unauthorized work, the city refused to pay for the unauthorized work.

² Aleshire advised the subcommittee it would use the form, although the city does not have any specific knowledge regarding whether this occurred.

In the unlikely event that the City Council again limits or modifies the staff's authority to oversee contracts, the City Council will clarify the modified roles of all involved so that the city can continue to manage its contractors effectively.

Recommendation No. 6: *To ensure that it receives the services for which it has contracted and to avoid conflicts with its contractors, Irvine should monitor and enforce its contract provisions requiring that work not be performed in advance of issuing a signed contract and approved purchase order.*

Irvine has, at all relevant times, monitored and enforced its contract provisions requiring that work not be performed in advance of issuing a signed contract and approved purchase order. Irvine will continue to monitor and enforce these provisions.

To be clear, the city did not allow the contractors to breach any provision of their service agreements during the Great Park Review. The Report does not include facts that suggest otherwise. As noted above, the Report specifically acknowledges that Irvine warned HSNO not to perform work outside the scope of services in June 2014. The Report also acknowledges that Irvine enforced the contracts by denying requests for payments of \$67,257.09 from HSNO and \$114,672 from Aleshire. By doing so, the city adequately protected its interests.

Recommendation No. 7: *To maintain appropriate, transparent fiscal accountability, Irvine should amend city contracting and purchasing policies by December 2016 to make certain that all of its contracts and contract amendments with a proposed cost exceeding the threshold requiring city council or other approval receive the appropriate approvals, including approval for sole-source contracts. Further, city policies should require appropriate approvals when increases in spending authority are accomplished through a purchase order or other means.*

Irvine agrees that all city contracts and contract amendments should be approved by the appropriate persons or governing bodies. Irvine also agrees that appropriate approvals should be obtained when increases in spending authority are provided through a purchase order or other means. Currently, the city's contract management system blocks the issuance of a purchase order where prior approval was not obtained.

Irvine, however, disagrees that the city's contracting or purchasing policies need to be amended to ensure that the requisite approval is acquired. The CSA's audit findings do not indicate any reason to amend the city's contracting or purchasing policies. The Report instead indicates that the city's processes for selecting the law firms involved in the park review was reasonable:

“According to the city manager, Irvine typically does not solicit competitive bids for legal services except when selecting its city attorney. Further, state law relevant to local government procurement does not require competitive bidding for legal services. Finally, state entities that follow the State Contracting Manual are not required to obtain legal services through competitive bidding. Thus, we did not expect Irvine to go through a competitive process when obtaining special legal services for the park review.”

The report further admits that Irvine acted within its authority when it originally issued the contract and \$30,000 purchase order to Aleshire. The CSA’s claim that City Council approval was necessary to authorize Aleshire to perform more than \$100,000 of work on the Great Park Review is incorrect. The budget authorization to exceed \$100,000 had been approved by the City Council during a public meeting and the terms of the contract were not otherwise changed. Having secured the budget authorization, the city manager was authorized to approve the contract, pursuant to City Council Resolution No. 95-145 and Irvine’s Financial Policies & Procedures.

Recommendation No. 8: *To provide the public with adequate information regarding the city council's spending decisions, Irvine's city council should, by December 2016, include in its policies a requirement that motions by the council to appropriate revenues to fund a specific contract should name the recipients and proposed use of the funds.*

The Report does not identify a violation of law or city policy. Rather, Recommendation No. 8 is based on the CSA’s unsubstantiated opinion regarding best practices and fails to address or anticipate the myriad circumstances when the City Council could better serve the community by providing broader authority and wider discretion. As the elected governing body of Irvine, the City Council is best equipped to exercise its discretion when it makes funding allocations, and it is held accountable by its constituents. The City Council sees no reason why it should limit that discretion as a result of the Report.

For example, the City Council recently voted to appropriate \$100,000 to assist city’s efforts to have a Veterans Cemetery developed at the Great Park. In making that appropriation, the City Council purposefully declined to provide a specific funding allocation because it was not yet apparent how to best deploy those funds to further the City Council’s intended objectives. The CSA’s Recommendation No. 8 will unnecessarily constrain the City Council’s ability to govern in similar circumstances.

Recommendation No. 9: *To foster public confidence in its processes and findings, Irvine should conduct self-initiated investigations, reviews, or audits in an open and transparent manner that ensures independence. Specifically, Irvine should not establish*

advisory bodies exempt from open meeting laws to oversee these investigations, reviews, or audits. Instead, any required reports from contractors conducting such investigations, reviews, or audits should go to the city council or a standing committee of the city council to be discussed in either open or closed session, as appropriate.

Under the Brown Act, this City Council retains the right to judiciously appoint *ad hoc* subcommittees of its membership to give focused attention to a particular matter for a temporary period. The City Council has historically formed subcommittees to allow two councilmembers (whom have been appointed by a majority of their colleagues at a public meeting) to examine specific subject matters in detail. Subcommittees have been appointed to address issues ranging from the obviously important to the seemingly mundane. In some instances, the subcommittee provides interim reports; in other instances, only a final report is issued. When the subcommittee's assignment is concluded, it is dissolved.

In this instance, the City Council unanimously determined that the unique nature of this matter necessitated the appointment of a subcommittee. The circumstances surrounding the Great Park required an extraordinary commitment of time and effort by the subcommittee and its agents. The City Council formed the subcommittee in a lawful manner.

The CSA has not identified—and cannot identify—any instance where the subcommittee either acted unlawfully when exercising its responsibilities during the Great Park Review, or needlessly interfered with transparency. In fact, the City Council, including the subcommittee, handled the Great Park Review similarly to the CSA's review of Irvine. In both cases, the initial investigatory stages of the audit were conducted in confidence. The CSA has not had any public meetings or made any public status reports during any phase of the CSA's audit. Indeed, California law requires that the CSA's activities remain confidential until the report is completed. (See, e.g., Gov't. Code § 8545.1). Rather, the Report will not be made public until it is completed to the CSA's satisfaction.

The reports by HSNO and Aleshire were ultimately revealed, discussed at length by the full City Council in public, and subjected to public scrutiny. The city sees no basis for the criticism of the city's handling of the Great Park Review when the CSA handles audits similarly while adhering to GAGAS.

Finally, implementation of the "one size fits all" recommendation that Irvine refrain from forming advisory bodies that fall within the Brown Act's exemptions to open meeting requirements would be poor policy. Investigations, reviews, and audits are performed for a variety of reasons under a variety of circumstances. They may relate to sensitive personnel issues; they may touch on issues that expose the city to potential litigation, or

they may (as was the case here) involve complex factual, contractual, policy, and legal issues that require private analysis before public disclosure. Irvine sees no reason to force those discussions to occur in public when neither the Brown Act nor sound public policy interests would be advanced by doing so.

Recommendation No. 10: *To ensure that Irvine follows best practices related to depositions as outlined in state law, the city council should adopt a policy requiring that Irvine post deposition transcripts for the public after the deponents have had adequate opportunity to correct and sign their depositions.*

Irvine will implement the CSA's recommendation and adopt a policy not to publicly post deposition transcripts until the deponent has either signed, or failed to sign, the deposition transcript in a manner consistent with California Code of Civil Procedure section 2025.520.

Irvine appreciates the opportunity to provide this response, and hopes that this letter is helpful to the CSA's completion of the Report. This response is not an exhaustive discussion of the city's concerns, and the city's decision not to expressly address something herein does not constitute, and should not be construed as, either an admission of fact or agreement with the CSA's findings, conclusions, or recommendations.

Sincerely,



Steven S. Choi, Ph.D.
Mayor

cc: Irvine City Council

California Code of Civil Procedure Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust

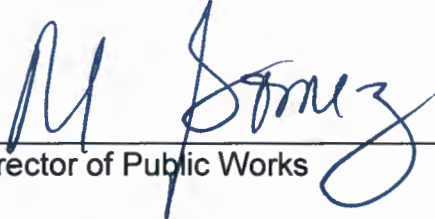
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REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

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 specifications and contract documents for the Annual Street Rehabilitation and Slurry Seal Capital Improvement Projects (CIP) 311801, 361807, and 341701.
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 district facilities within the project limits.
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 financial policies and purchasing procedures.

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 primarily be conducted in Woodbridge south of Barranca Parkway, Rancho San Joaquin and University Park planning areas. Hicks Canyon Trail and a portion of Peters Canyon Trail between Irvine Boulevard and Portola Parkway will also receive pavement resurfacing. Locations are highlighted in 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. The proposed IRWD agreement for funding and scope of the bid alternative work is included in 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, off-street bike trails, City parking lots, 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 which takes into account the age of the pavement structural section, along with factors such as surface conditions, sub-grade 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 on-going 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 communities of Woodbridge south of Barranca Parkway, Rancho San Joaquin, University Park and an extended section of Barranca Parkway from Culver Drive to San Diego Creek. The project also includes pavement resurfacing of the parking lots at Lakeview Senior Center and Mark Daily Athletic Field, as well as Hicks Canyon Trail and a portion of Peters Canyon Trail between Irvine Boulevard and Portola Parkway. A copy of the Schedule of Work, Specifications and Contract Documents 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. An agreement (Attachment 2) between the City and IRWD provides for complete reimbursement to the City for all project costs related to IRWD facilities.

The construction contract cost estimate prepared by the project engineer is \$6,507,000 for the Base Bid and \$550,500 for IRWD related costs for a total construction contract amount of \$7,057,500. A budget allowance of \$400,020 for construction engineering and \$600,000 for construction contingency is recommended as shown in the Funding Summary (Attachment 4) for a total project cost of \$8,057,520.

Construction is anticipated to start in October 2017 and be completed by the end of June 2018. 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) Procedures 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.

FINANCIAL IMPACT

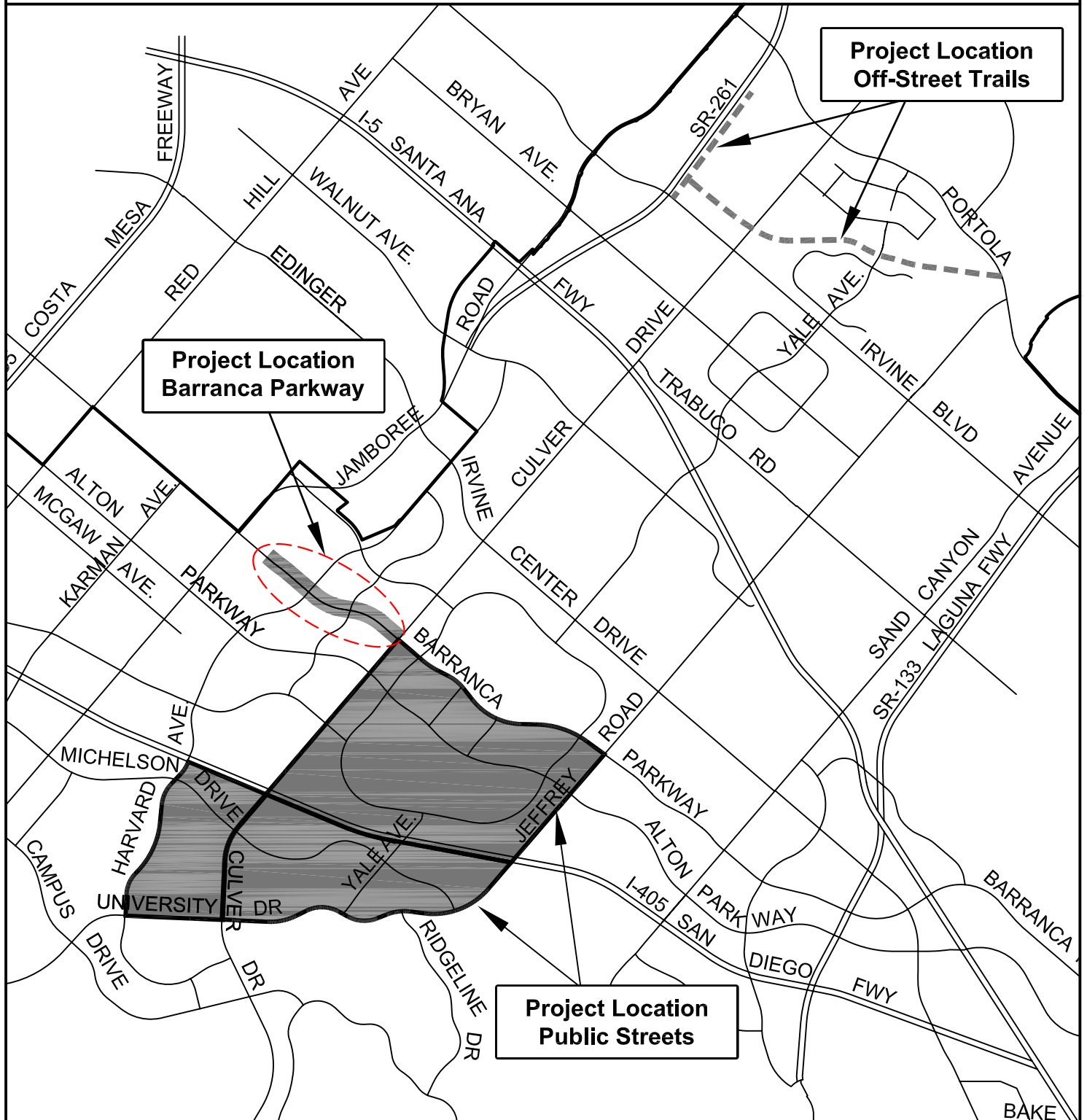
The City Council approved funding for this project with the Fiscal Year 2017-18 and 2016-17 Capital Improvement Program Budgets. The construction contract cost estimate prepared by the project design engineer is \$6,507,000 for the Base Bid and \$550,500 for IRWD related costs for a total construction contract amount of \$7,057,500. The recommended budget allowance of \$400,020 for construction engineering and \$600,000 for construction contingency brings the total estimated project cost for the construction phase to \$8,057,520. Funding is available in the City Council approved CIP's 311801, 361801 and 341701 from the City's Gas Tax, Measure M, Rehabilitation Reserve and Slurry Seal Funds, and the 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 2017-18



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. 18-1292

This Agreement is made and entered into as of this ____ day of _____, 2017, 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 on Barranca Parkway from Culver Drive to San Diego Creek Channel and within the Woodbridge South, University Park, and San Joaquin communities for the ANNUAL STREET REHABILITATION AND SLURRY SEAL, Bid No. 18-1292 (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 464 Water Valves, approximately 71 Recycled Water Valves, approximately 13 Sewer Cleanouts and approximately 186 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

ATTACHMENT 2

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 \$572,520, 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 _____
Sean Joyce
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. 18-1292

ENGINEER'S ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNITS	UNIT COST	EXTENDED AMOUNT
A-1	INSTALL NEW IRWD WATER VALVE FRAME AND COVER TO GRADE	464	EA	\$ 750.00	\$ 348,000.00
A-2	INSTALL NEW IRWD RECLAIM WATER VALVE FRAME AND COVER TO GRADE	71	EA	\$ 750.00	\$ 53,250.00
A-3	INSTALL NEW IRWD SEWER CLEANOUT FRAME AND COVER TO GRADE	13	EA	\$ 750.00	\$ 9,750.00
A-4	ADJUST EXISTING IRWD SEWER MANHOLE FRAME AND COVER TO GRADE	186	EA	\$ 750.00	\$ 139,500.00
TOTAL CONSTRUCTION ESTIMATE					\$ 550,500.00
4% ADMINISTRATION FEE PER SECTION 5 OF AGREEMENT					\$ 22,020.00
TOTAL COSTS					\$ 572,520.00



CITY OF IRVINE

ORANGE COUNTY, CALIFORNIA

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

**ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701**

BID NO. 18-1292

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

AUGUST 2017

ATTACHMENT 3

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APPENDIX C – STANDARD PLANS

CITY OF IRVINE, CALIFORNIA
NOTICE INVITING BIDS
Bid No. 18-1292

NOTICE IS HEREBY GIVEN that sealed bids 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 the **Annual Street Rehabilitation and Slurry Seal Project, CIP 311801, 361807, and 341701** 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 on the BidsOnline system in accordance with the instructions beginning on page 21. All other required documents for the bid proposal packet (pages 18, 23-38) must be received at One Civic Center Plaza, Irvine, California, 92606-5207 no later than 10:00 a.m. on August 22, 2017, at which time and place bids will be publicly opened and read aloud. No late bids will be accepted. Hand-delivered or courier-delivered bid packages shall be brought 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. Mailed bids shall be sent to City of Irvine, c/o Purchasing Agent, P.O. Box 19575, Irvine, CA 92623-9575. All bids shall be submitted in sealed envelopes marked on the outside with "BID NO. 18-1292 FOR ANNUAL STREET REHABILITATION AND SLURRY SEAL, CIP 311801, 361807, AND 341701." If mailed to the Purchasing Agent, include a label on outside of sealed bid "**SEALED BID--Do Not Open With Regular Mail.**"**

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; 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. The Engineer's construction cost estimate for the Base Bid is \$6,507,000 and the cost estimate for the Alternate Bid is \$550,500.

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 is to be completed in a total of **One Hundred Forty (140) Working Days** from the date specified in the Notice to Proceed. Liquidated damages shall be **Four Thousand Six Hundred Dollars (\$4,600)** 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.

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 cash, a certified or cashier's check or by a bid bond issued by a surety company, admitted to do business in the State of California, on the form furnished by the Agency 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 cash, check or bid bond shall be in an amount of not less than ten percent (10%) of the amount of the bid. The Performance and Payment Bond 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 bid bond.

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 of Irvine reminds all contractors and subcontractors of the adoption of **State of California Senate Bill No. 854 (SB 854)**, 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 (including maintenance work) with a value exceeding \$1,000.00 must first be registered and pay an annual fee with the DIR. Effective March 1, 2015, the City will require all contractors and subcontractors to be registered with the DIR prior to submitting a bid on any public works project. 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, effective April 1, 2015, the City will not award a contract to and no contractor or subcontractor will be allowed to work on a City public works project 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 web site 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 to include 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 register on the City's web site and download the Bid Documents in order to submit a bid. Firms must also check the web site periodically for addenda information as failure to download any and all addenda, and acknowledge in the bid submittal, 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 Alex Salazar by email to asalazar@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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INSTRUCTION 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 according to the following instructions:
 - a) For the convenience of bidders, the "SCHEDULE OF WORK AND BID PRICES" 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. 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 do not reference all addenda or that are not submitted on the prescribed forms, and in accordance with the INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS may be rejected. The completed forms shall be without interlineations or alterations; any such bid may be declared non-responsive.
 - 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) Bid proposal packets shall be accompanied by cash, a certified or cashier's check, or an acceptable 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 cash, 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 cash, check or bid bond shall be forfeited. The City will return Bidder's cash or 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 proposal packets shall be delivered to the office of the Purchasing Agent, City of Irvine, Irvine, California, on or before the day and hour set for the bid opening in the Notice Inviting Bids, in a sealed envelope that bears the title of the Work, Bidder's name, and the words "**BID NO. 18-1292 ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT, CIP 311801, 361807, AND 341701.**" If mailed to the Purchasing Agent, include a label on the outside of the sealed bid: "SEALED BID--Do Not Open with Regular Mail."
- 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 may be solely responsible for obtaining any such Addenda.

The Bidder shall acknowledge the receipt of Addenda on the form provided in the Bid package. Bids that do not reference all Addenda on the prescribed form shall be rejected as non-responsive.

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-responsive 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 and the delivery of the bonds and insurance certificates, as specified above.

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 Bid without consideration of any Alternate Bids.

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 Agency.

Award of the Alternate Bid Items, if awarded, shall be at the sole discretion of the City. Alternate Bid Items shall be awarded in accordance with Section 2-1.1 Alternate Bid Items.

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 the Special Provisions. 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 cash or check proposal guarantees 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

In accordance with State of California Senate Bill No. 854 (SB 854), contractors bidding on and/or engaging in the performance of public works projects (the definition of "public works" is found at Labor Code Section 1720, *et seq.*) shall be registered with the Department of Industrial Relations. 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 on SB 854 can be found at <http://www.dir.ca.gov/Public-Works/SB854.html>

Attention is directed to Labor Code § 1735, 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.

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 or found to be not responsive to this Invitation for Bids (IFB).
- c) Investigate the qualifications of any Bidder under consideration.
- d) Require confirmation of information furnished by the Bidder.
- e) Require additional evidence of Bidder's ability to perform the Work described in this IFB.
- 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. 311801, 361807, AND 341701
BID NO. 18-1292

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. 311801, 361807, AND 341701
BID No. 18-1292

SCHEDULE OF WORK – BASE BID

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
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 Program	LS	1
6	Traffic Striping, Markers and Markings	LS	1
7	Variable Depth Cold Milling (0" – 2")	SF	1,000,000
8	2" Cold Milling	SF	1,300,000
9	Install Glaspave 25 Prior to AC Overlay	SF	2,520,000
10	2" Asphalt Concrete Overlay	TON	40,000
11	Adjust Survey Monument Frame and Cover to Grade	EA	50
12	Adjust Storm Drain Manhole Frame and Cover to Grade	EA	110
13	Install 6' Diameter Type E Traffic Signal Detector Loop and Connect to DLC	EA	50
14	2" Cold Milling for AC Repairs Prior to Slurry Seal	SF	300,000
15	AC Paving for Repairs Prior to Slurry Seal	TON	3,750
16	Micro-Milling AC Pavement	SF	1,450,000
17	Type I Slurry Seal	SY	341,000
18	Type II RAP Slurry	SY	393,000
19	PCC Curb and Gutter	LF	2,000
20	PCC Curb Access Ramp	EA	45
21	8" Thick Misc. PCC Improvements	SF	2,500
22	4" Thick Misc. PCC Improvements	SF	5,200

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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	464
A-2	Install New IRWD Recycled Water Valve Frame and Cover to Grade	EA	71
A-3	Install New IRWD Sewer Cleanout Frame and Cover to Grade	EA	13
A-4	Adjust Existing IRWD Sewer Manhole Frame and Cover to Grade	EA	186

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

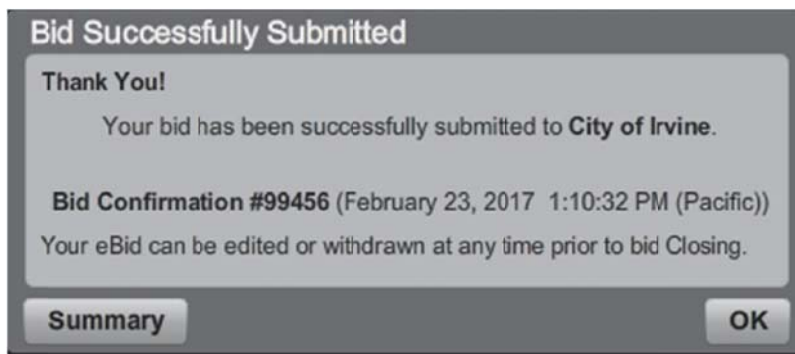
INSTRUCTIONS FOR ENTERING ELECTRONIC BIDS

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. 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.
9. 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:

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292



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 on the BidsOnline system, and Bid Submittal Documents must be received at One Civic Center Plaza, Irvine, California, 92606-5207, before the date and time indicated in the Notice Inviting Bids. If bid prices are not entered by the deadline, or Bid Submittal Documents are not received by the deadline, the bid shall be declared non-responsive.

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

ADDENDA

Bidder acknowledges receipt of addenda to plans, specifications and other Contract Documents listed below, if any, and agrees this Bid Proposal is submitted on the basis of all changes in the work specified herein and said addenda are by this reference made a part hereof.

Addenda to Contract Documents Received:

<u>No.</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

If the Bidder does not list all applicable Agency-issued addenda above, the Bid Proposal will be rejected.

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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 ☐

Bidder’s Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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:			

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, CIP NO. 311801, 361807 and 341701** 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:				

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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

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

10. List projects of a similar nature to the **ANNUAL STREET REHABILITATION AND SLURRY SEAL** 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:					

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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

Name of Contractor and Subcontractors	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 ___	

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.

Bidder's Name: _____

CITY OF IRVINE
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP NO. 311801, 361807, AND 341701
BID No. 18-1292

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 Forty (140) 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 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 (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. 18-1292

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. 311801, 361807, AND 341701
Bid No. 18-1292

(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. 311801, 361807, AND 341701 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 No. 311801, 361807, AND 341701
Bid No. 18-1292

This Contract made and entered into this _____ day of _____, 2016, 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

(\$ _____) 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: **Four Thousand Six Hundred Dollars (\$4,600)** 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. 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. 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.
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

Sean Joyce
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
CIP No. 311801, 361807, AND 341701
BID NO. 18-1292

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

CIP No. 311801, 361807, AND 341701

BID NO. 18-1292

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 web site: <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>

In accordance with SB 854, 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 by the symbol (**S**). 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.

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.

2-11.1 Inspection Requirements. *ADD the following New Subsection:*

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

3-1 CHANGES REQUESTED BY THE CONTRACTOR. *REVISE as follows:*

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

The Contractor may initiate changes by submitting a written Change Order Request to the Agency Representative 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. *REVISE as follows:*

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 for 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 Subsection 3-5 "DISPUTED WORK" 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 the 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 bonds, credit for work deleted from Contract, similarly documented, overhead and profit, and 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.

3-2.2.1 Contract Unit Prices. *After the 2nd paragraph, ADD the following:*

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 (25%) 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. *After the 1st sentence, ADD the following:*

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

3-3 EXTRA WORK *Revise as follows:*

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 Basis for Establishing Costs.

3-3.2.2.3 Tool and Equipment Rental. *DELETE 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 Section 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 (5%).

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. *After the 1st sentence, ADD the following:*

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

4-1 MATERIALS AND WORKMANSHIP. *REVISE as follows:*

4-1.1 General. *1st paragraph, ADD the following before the 1st sentence:*

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.

4-1.1.1 Contractor Equipment and Plants. *ADD the following New Subsection:*

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, if any.

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

4-1.1.2 Adoption or Revision Date for Standards, Codes, and Tests. *ADD the following New Subsection:*

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.

All 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. *After the last paragraph, 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. *After the last paragraph, 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.

4-1.4.1 Testing Laboratory. *ADD the following New Subsection:*

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. *After the last paragraph, ADD the following:*

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

- a) Within the time specified in Subsection 4-1.1.2 "Adoption or Revision Date for

Standards, Codes, and Tests” of these Special Provisions, transmit number of copies Contractor needs plus four 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 section.
- 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, in accordance with Subsection 2-5.3 "Submittals".

4-1.10 Agency-Furnished Materials. *Add the following new Subsection:*

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) 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 all 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

5-0 GENERAL. *ADD the following new Section 5-0:*

For purposes of this Section 5, the terms referenced below are defined as provided below:

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 Subsection 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 sole expense, perform the following:

- 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. *2nd and 3^d paragraphs, DELETE in their entirety 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.

At the beginning of the last paragraph, ADD the following:

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 Section 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 Subsection 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 Subsection 6-6.3.

- a) Subject to Subsections 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 this Section 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 this Section 5-5.

Delays described in this Subsection 5-5 are not considered right of way delays within the scope of Section 2-8.

5-7 CONTRACTOR RESPONSIBILITIES. *ADD the following new Section 5-7:*

The Contractor shall perform the following:

- (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 City inspector. 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 therefore.

5-8 PERMANENT UTILITIES. *ADD the following new Section 5-8:*

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 three (3) or more 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.

Project Zones (See Appendix B)

	<u>Status</u>
Zone 1 – Woodbridge South	Restricted
Zone 2 – University Park	Restricted
Zone 3 – Barranca Parkway	Restricted
Zone 4 – Any Bike Trail or Parking Lot	Unrestricted

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 complete 2" uniform grind and asphalt overlay work on Barranca

Parkway from Culver Drive to the San Diego Creek within 30 days from date specified on the Notice to Proceed.

- c) 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.
- d) Contractor shall complete all concrete work prior to AC Paving operations (with the exception of paving work on Barranca Parkway). Contractor shall complete all AC Paving operations prior to starting any Slurry Seal operations within a particular Zone.
- e) 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.
- f) 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.
- g) 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.
- h) 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.
- i) The Contractor shall not schedule more than 1,800 Tons of AC Overlay paving per work day, without prior approval by the Engineer.
- j) 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.
- k) Other Scheduling Restrictions and Construction Requirements required by other sections of the Standard Specifications and the Special Provisions.

6-2 PROSECUTION OF THE WORK. *REVISE as follows:*

6-2.1 Time of Completion and Forfeiture Due to Delay. *ADD this Subsection:*

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. *DELETE in its entirety and*

SUBSTITUTE with the following:

If the Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will ensure its completion within the time specified in the Contract, or any extension thereof, or fails to complete such Work within such time, or if the Contractor shall be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he or any of his Subcontractors should violate any of the provisions of the Contract, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified, or if he should fail to make prompt payment to Subcontractors or for material or labor or if he should persistently disregard laws, ordinances, or instructions of the Agency, the Agency may serve written notice upon the Contractor and his surety of the Agency's intention to terminate the Contract, said notice to contain the reasons for such intention to terminate the Contract, and unless within ten (10) Calendar Days after the service of such notice such violations shall cease and satisfactory arrangements for the corrections thereof be made, the Contract shall upon the expiration of said ten (10) Calendar Days cease and terminate. In such case, the Contractor shall not be entitled to receive any further payment until Work is finished.

In the event of any such termination, the Agency will immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the Contract; provided, however, that if the surety within fifteen (15) Calendar Days after the serving upon it of a notice of termination does not give the Agency written notice of its intention to take over and perform the Contract or does not commence performance thereof within thirty (30) Calendar Days from the date of serving said notice, the Agency may take over the Work and prosecute the same to completion by contract or by any other method the Agency may deem advisable for the account and at the expense of the Contractor, and his surety shall be liable to the Agency for any excess cost or other damage occasioned the Agency thereby, and in such event the Agency may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plants, and other property belonging to the Contractor that may be on the site of the Work and be necessary therefor. For any portion of such Work that the Agency elects to complete by furnishing its own employees, materials, tools, and equipment, the Agency shall be compensated for such in accordance with the schedule of compensation for force account work in the article on payment for changes in the work.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the Agency.

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 (4%) 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 DELAYS AND EXTENSIONS OF TIME. *REVISE as follows:*

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 COMPLETION, ACCEPTANCE, AND WARRANTY. *REVISE as follows:*

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 6-8.4.

When the Agency confirms Work is complete and, closeout submittals, as referred to in 6-8.5 have been provided, Agency Representative will notify Contractor of date of completion on the Weekly Statement of Working Days.

6-8.4 Re-inspections. *ADD this New Subsection:*

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 re-inspection.

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

6-8.5 Closeout Submittals. *ADD this New Subsection:*

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. *After the last paragraph, ADD the following:*

All work is to be completed in a total of **One Hundred Forty (140) Working Days** from the date specified in the Notice to Proceed.

Liquidated damages shall be **Four Thousand Six Hundred Dollars (\$4,600)** 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

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES. *REVISE as follows:*

7-1.1 General. *ADD the following at the end of this Subsection:*

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.

7-1.1.1 Equipment. *ADD this New Subsection:*

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. *ADD the following at the end of this Subsection:*

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. *REVISE as follows:*

7-3.1 General. *MODIFY to ADD the following:*

Without limiting Contractor's indemnification obligations, the Contractor shall not commence work until he procures and maintains, at his 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 which may arise from or in connection with the performance of the Work hereunder by Contractor, its agents, representatives, employees, and/or subcontractors. In the event that Contractor subcontracts any portion of the Work in compliance with 2-3 of the Standard Specifications and Special Provisions, the Contract between the Contractor and such subcontractor shall require the subcontractor to maintain the same policies of insurance that the Contractor is required to maintain pursuant to 7-3.

Insurance policies shall be deemed not be in compliance if they include any limiting provision or endorsement that has not been submitted for approval in accordance with 7-3.

The Contractor's insurance shall be "occurrence" rather than "claims made" insurance, except for Professional Liability insurance, which may be for claims made and shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

The insurance coverage required for General Liability, Automobile Liability and Contractor's Pollution Liability shall contain the following provisions or be endorsed to provide the following:

The Contractor shall name as additional insured the City of Irvine, IRWD, State of California, their elected officials, officers, employees, volunteers, boards and representatives shall be additional insured 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 the "Sole" liability of contractor
- d) Contain any other exclusion contrary to the Contract

This insurance shall be primary and any other insurance, deductible, or self-insurance available to the insured added by endorsement shall be in excess of and shall not contribute with this insurance.

The Contractor shall immediately report all claims to its insurance carrier and acknowledge receipt within thirty (30) Calendar Days.

No officer, employee, or agent of the Agency, Agency Representative, the Engineer, or their consultants shall be personally responsible for any liability arising under or by virtue of the Contract.

To the maximum extent permitted by law, Contractor shall hold harmless, indemnify, and defend the City of Irvine, IRWD, State of California, their representatives and each of their officers, employees, and agents from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (herein "claims" or "liabilities") that may be asserted or claimed by any person or entity arising out of the willful or negligent acts, errors or omissions of Contractor, its employees, agents, representatives or subcontractors in the performance of any tasks or services for or on behalf of Agency, whether or not there is concurrent active or passive negligence on the part of Agency and/or Agency Personnel, but excluding such claims or liabilities arising from the active negligence or willful misconduct of Agency or Agency Personnel. In connection therewith:

- a) Contractor shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith.
- b) Contractor shall promptly pay any judgment rendered against Agency or any Agency Personnel for any such claims or liabilities.
- c) In the event Agency and/or any Agency Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the negligent performance or a failure to perform the work or activities of Contractor, Contractor shall pay to Agency any and all costs and expenses incurred by Agency or Agency Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees. So much of the money due to the Contractor under and by virtue of the Contract as shall be considered necessary by the Agency may be retained by the Agency until disposition has been made of such actions or claims for damages as aforesaid.

Any deductibles or self-insured retentions must be declared to and approved by Agency prior to the execution of this Contract by Agency. Prior to commencing work, the Contractor will provide the Agency, in accordance with 7-3, written confirmation of the deductible for each insurance coverage required by this contract or in the case of no deductible.

DELETE 4th paragraph and SUBSTITUTE with the following:

All policies shall be endorsed to state that coverage shall 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 thereof given by the insurer to Agency

by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

In lieu of this endorsement, the Contractor shall either:

- 1) Submit a letter, signed by the insurance agent or broker, certifying that he/she shall notify the City should the coverage 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 thereof given by the insurer to Agency by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided; or
- 2) Submit evidence that the insurance premium has been paid in full 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 Contractor an email message providing instructions for submitting insurance certificates and endorsements.

7-3.2 General Liability Insurance. *DELETE the 2nd paragraph and SUBSTITUTE with the following:*

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, 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). Minimum limit of Two Million Dollars (\$2,000,000) aggregate for products-completed operations and with a minimum limit of Four Million Dollars (\$4,000,000) general aggregate. This general aggregate limit shall apply separately to the Contractor's work under this Contract.

Products-Completed Operations: Contractor shall procure and submit evidence of insurance in accordance with 7-3 of the Standard Specifications and these Special Provisions for a period of at least three (3) years from the time that all Work under this Contract is completed.

7-3.3 Workers' Compensation Insurance. *MODIFY to ADD the following:*

Workers' Compensation and Employer's Liability: 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.

In the event Contractor has no employees requiring Contractor to provide Workers' Compensation Insurance, Contractor shall so certify to Agency in writing prior to Agency's execution of this Contract. Agency and Agency Personnel shall not be responsible for any claims in law or equity occasioned by failure of the Contractor to comply with this section or with the provisions of law relating to Workers' Compensation.

If Contractor is providing on-site staffing services, then the Workers' Compensation insurance shall include an Alternative Employers Endorsement.

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 entirety and SUBSTITUTE with the following Section 7-5:*

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 3rd 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 the 4th paragraph in its entirety 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. REVISE as follows:

Section 7-8 includes specifications for performing work site management, including spill prevention and control, material management, waste management, water pollution control and non-stormwater 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:

Golden West Sawdust
7975 Irvine Boulevard
Irvine

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 therefore.

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 the following after the last paragraph:*

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.

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

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.

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 7-10.4.3. 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.

CSMP: Construction Site Monitoring Program.

NAL: Numeric Action Level.

NEL: Numeric Effluent Limit.

NPDES: National Pollutant Discharge Elimination System.

NOI: Notice of Intent.

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.

RWQCB: Regional Water Quality Control Board.

SAP: Sampling and Analysis Plan.

SSC: Suspended Sediment Concentration.

SWRCB: State Water Resources Control Board.

SWPPP: Storm Water Pollution Prevention Plan.

WDID: Waste Discharge Identification Number.

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' Web site for the Division of Construction, Storm Water and Water Pollution Control at (Information <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 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 Web site 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' Web site 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' Web site 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 Web site 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). *ADD the following after the last paragraph:*

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 Program (WPCP).

7-8.6.3.1 General.

Summary

The Contractor shall prepare a water pollution control program 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, dewatering, 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 therefore.

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. *ADD the following after the last paragraph:*

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.

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 SAFETY. *REVISE as follows:*

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.

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 and all 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.

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.

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 Caltrans State Standard Specifications, Section 84, Section 85 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 C, 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 C, 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 C.

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 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	C2-PG 64-10
Any AC Paving for Bike Trails	Type III C3-PG 64-10
Any AC Paving for Parking Lots	Type III C3-PG 64-10
Any AC Repair Locations 2" Thick or Less	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.	B-PG 64-10

The Contractor shall submit for approval all Asphalt Concrete Mix Designs at least one week prior to paving operations.

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 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. No separate payment will be made for AC Slot Paving Adjacent to New PCC Installations; full compensation for this work 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:

<http://www.irwd.com/doing-business/engineering-planning/engineering-docs.html>

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.

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 and surface 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" Asphalt Concrete Overlay** and **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 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.

302-7 PAVEMENT FABRIC

302-7.1 General. *DELETE in its entirety, and REPLACE with the following text:*

Pavement fabric material to be furnished and installed for Bid Item 9 in the Base Bid Schedule of Work shall be Tensar GlasPave 25, or approved equal.

Whenever the term "Pavement Fabric" is used, it shall mean Tensar GlasPave 25, or approved equal.

302-7.2.3 Laydown. *After the last paragraph, ADD the following text:*

Pavement fabric shall not be placed within one and one-half feet (1.5') from the edge of the gutter or A.C. adjacent curb face.

302-7.3 Measurement. *DELETE in its entirety, and REPLACE with the following text:*

Pavement fabric material will be measured by the square foot (SF) for the actual pavement area covered. No additional payment will be made for fabric overlapping as required by the specifications and Special Provisions.

302-7.4 Payment. *DELETE in its entirety, and REPLACE with the following text:*

Payment for **Install Tensar GlasPave 25 Prior to AC Overlay** shall be at the contract unit price per **Square Foot (SF)** and shall include full compensation for furnishing all labor, materials (including tack coat), tools, equipment, and incidentals for doing all the work involved in furnishing and placing pavement fabric. Quantities of pavement fabric will be determined from measurements taken of the net area covered by the pavement fabric with no allowance for overlaps complete in place.

Payment for advance spreading of asphalt concrete over the fabric shall be considered as included in the Contract Unit Price for asphalt concrete.

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 sample list of repair locations is included in Appendix B of these Special Provisions. This list is only a sample of possible repair locations, however the official list will be provided at the Pre-Construction meeting.

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 C.

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 the provisions of Section 307-11 of the Standard Specifications, Section 104.3.E of the City of Irvine Design Manual, and Street Improvement Plans made part of these Specifications.

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.

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.

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) 451-2624.

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 and State of California Standard Plans, 2010 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.

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.

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 "Loop Layout & Splicing Detail").

Loop wire shall be Type 1.

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.

Four, 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.

701-17.6.6 Payment. *After the last paragraph, ADD the following text:*

Payment for **Install 6' Diameter Type E Traffic Signal Detector Loop 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 6' Diameter Type E 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.

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APPENDIX A
GUARANTEE FORM

**GUARANTEE FORM
FOR
ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP No. 311801, 361807, AND 341701
BID NO. 18-1292**

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: _____

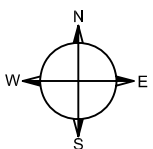
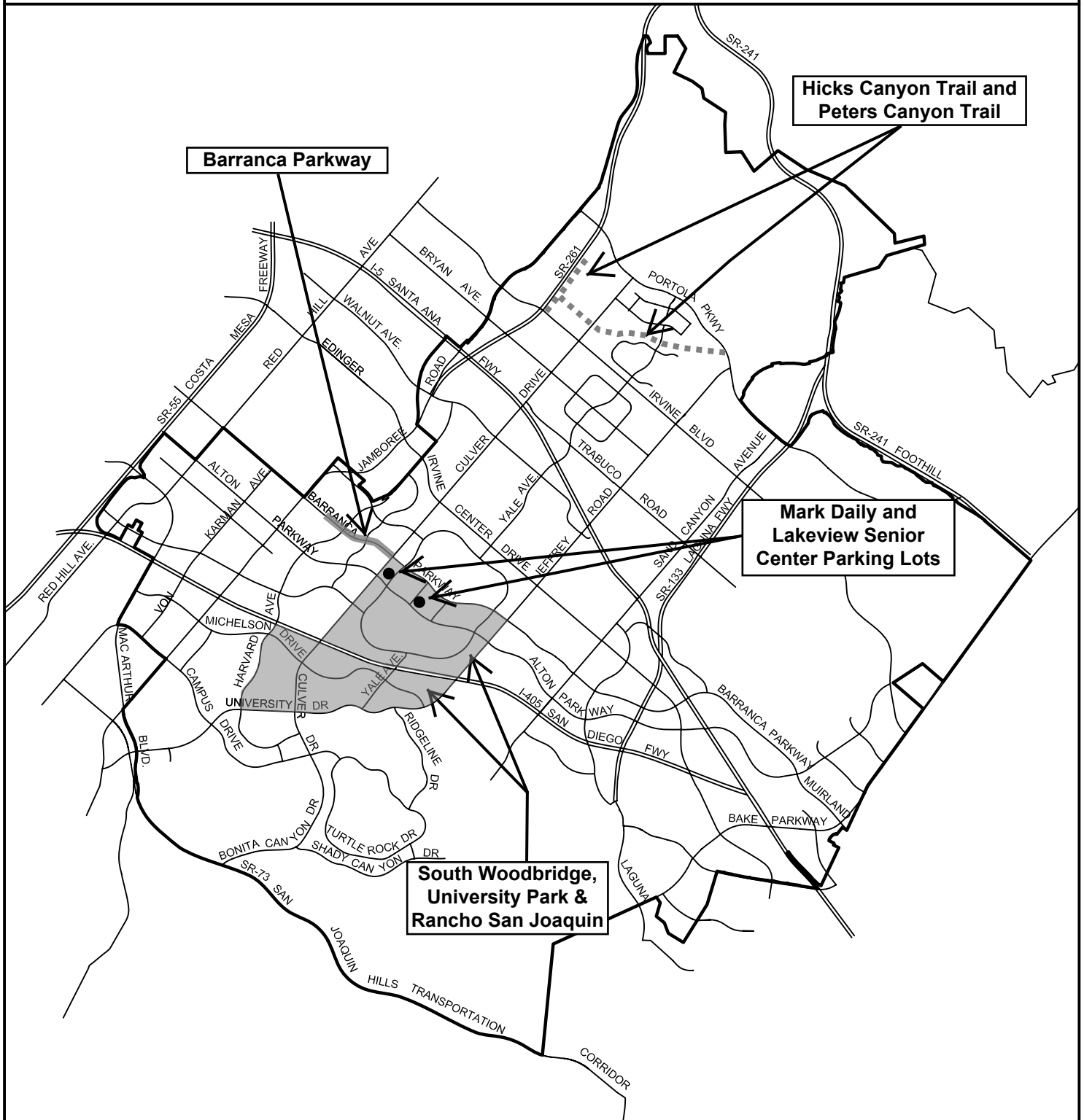
TITLE: _____

DATE: _____

APPENDIX B

- VICINITY MAP
- WOODBRIDGE SOUTH MAP (ZONE 1)
- UNIVERSITY PARK MAP (ZONE 2)
- BARRANCA PARKWAY (ZONE 3)
- BIKE PATH AND PARKING LOT MAPS (ZONE 4)
- LIST OF ASPHALT REHABILITATION AND SLURRY SEAL WORK LOCATIONS
- SAMPLE LIST OF CONCRETE REPAIR LOCATIONS

ANNUAL STREET REHABILITATION AND SLURRY SEAL PROJECT FY 2017-18



VICINITY MAP



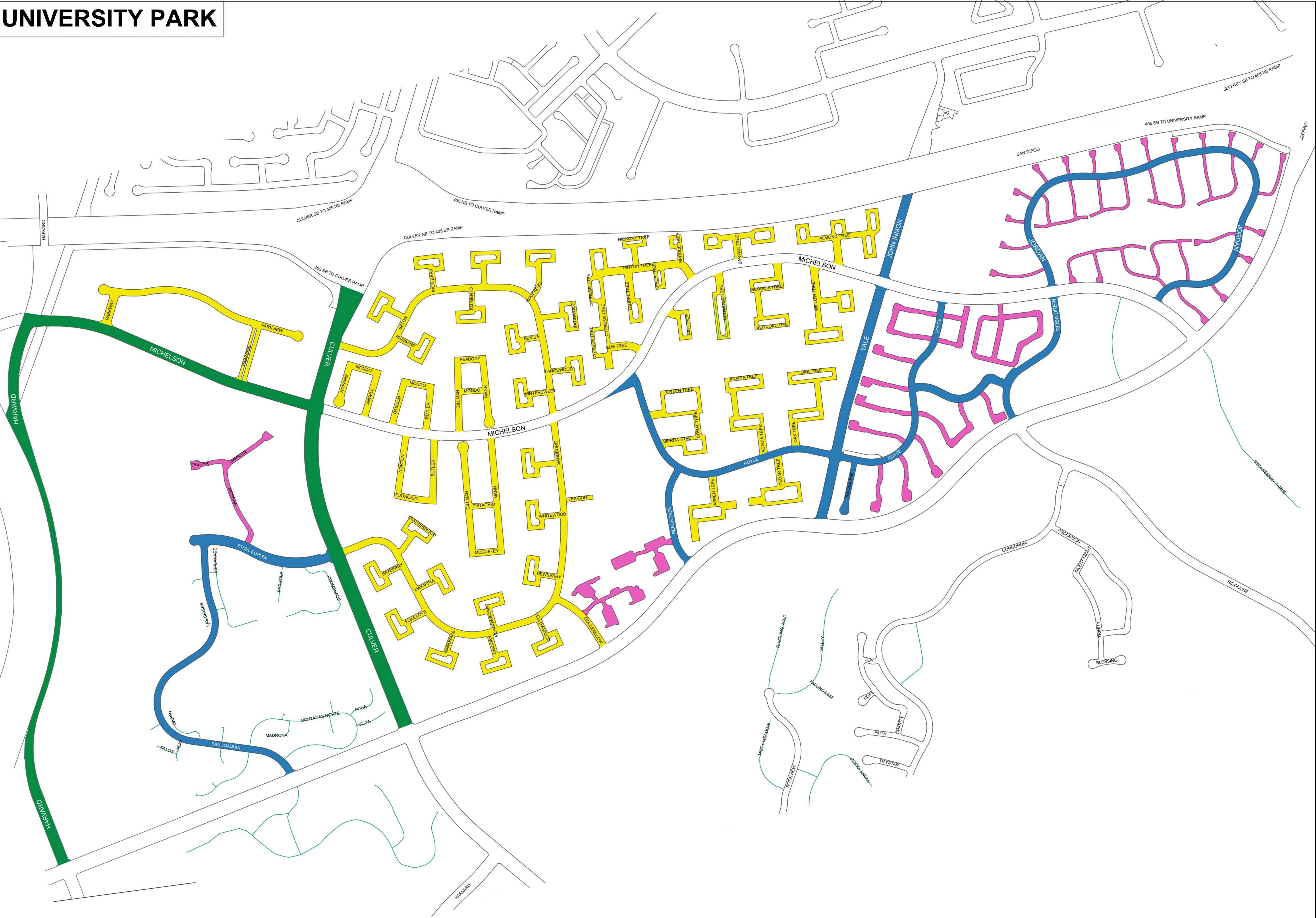
WOODBIDGE



- 2" Grind and Overlay
- Type I Slurry Seal
- Type II Slurry Seal
- Private Streets

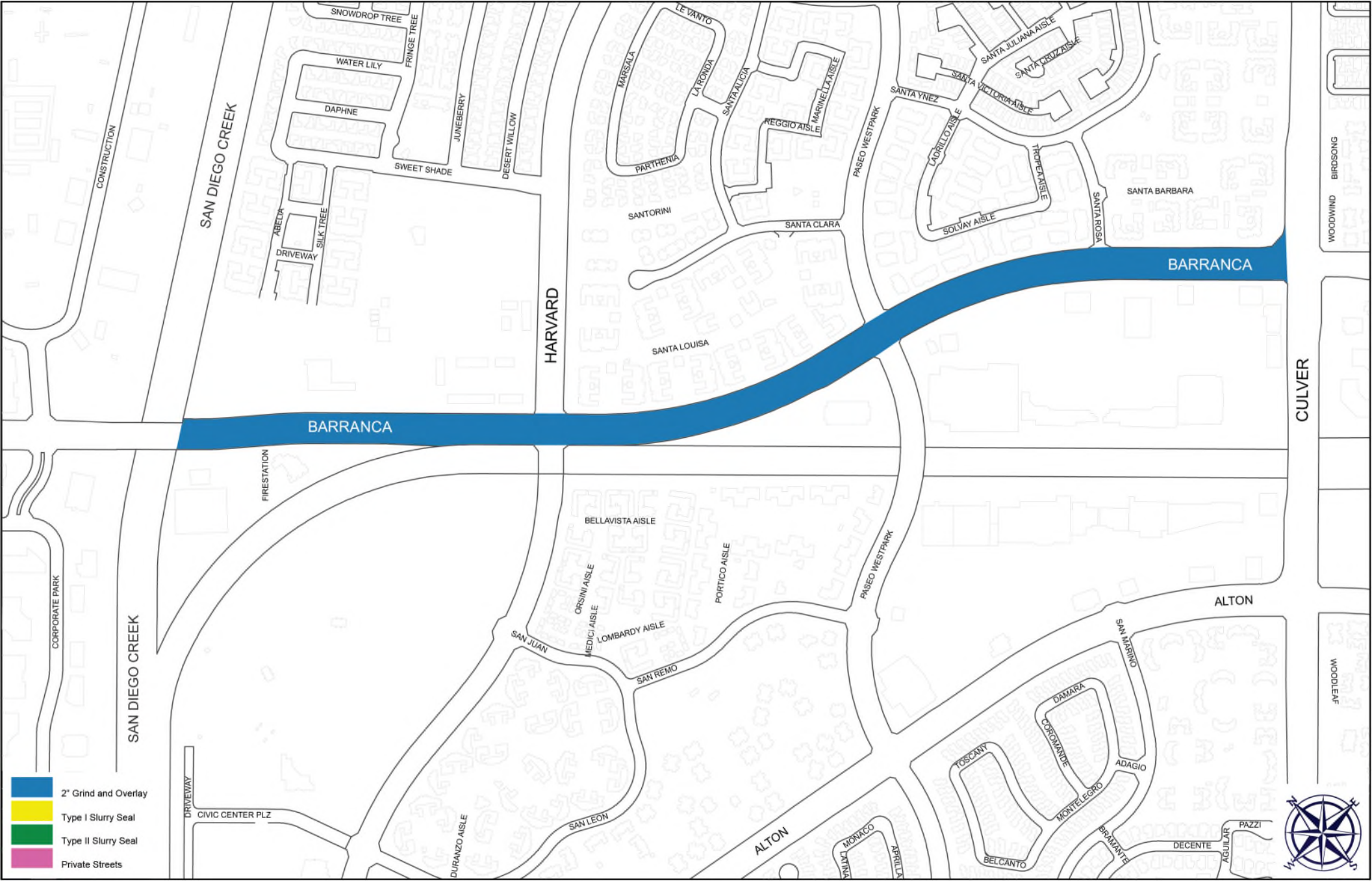


UNIVERSITY PARK



- 2" Grind and Overlay
- Type I Slurry Seal
- Type II Slurry Seal
- Private Streets

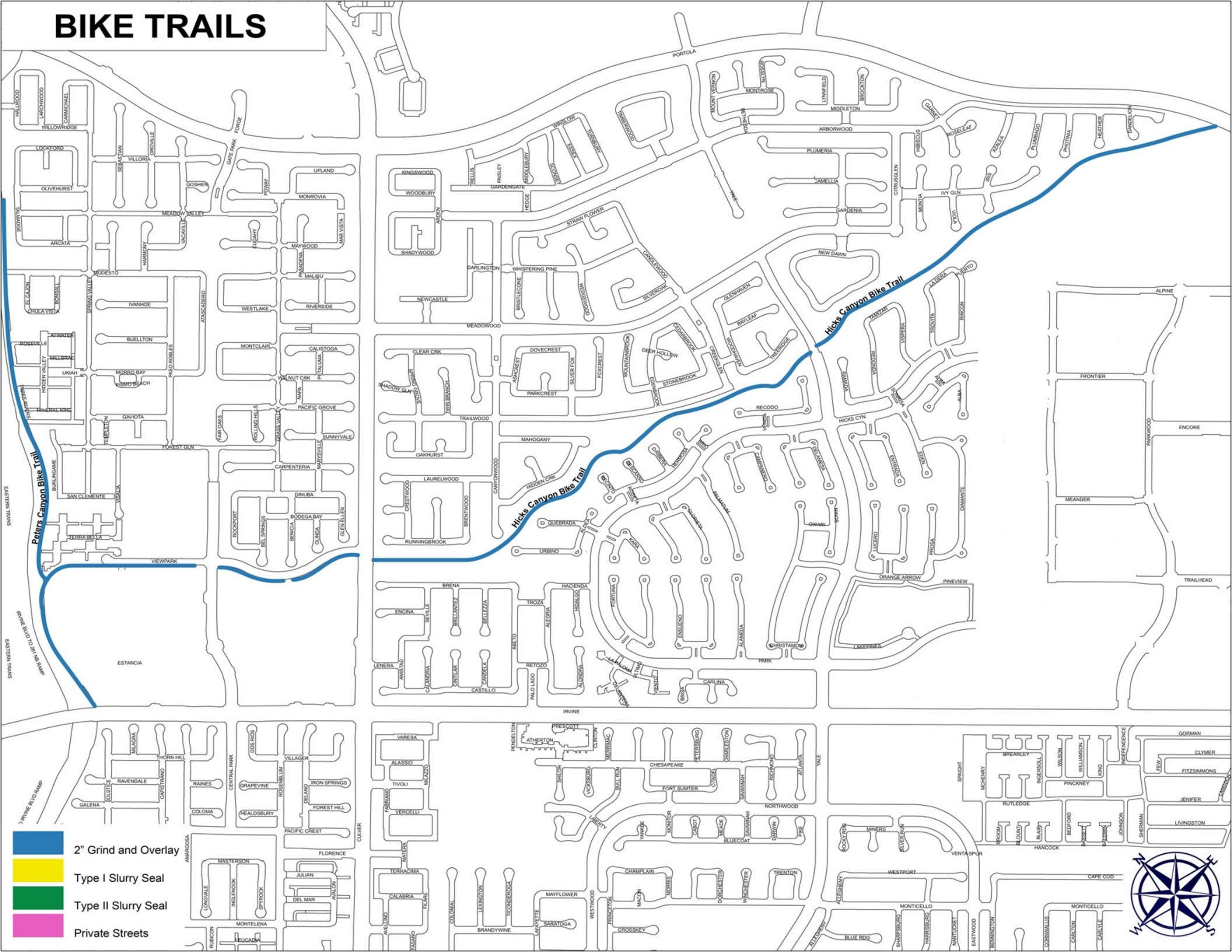




- 2" Grind and Overlay
- Type I Slurry Seal
- Type II Slurry Seal
- Private Streets



BIKE TRAILS



CULVER

CULVER

BARRANCA

ALTON

WEST YALE LOOP

WEST YALE LOOP

BARRANCA

LAKE

LAKE

GREG COPS

ALTON

MEADOWBROOK

Mark Daily Park
Parking Lot

Lakeview Senior Center
Parking Lot

- 2" Grind and Overlay
- Type I Slurry Seal
- Type II Slurry Seal
- Private Streets



FY 2017-18 ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP 311801,361807 and 341701
Bid No. 18-1292

Quantities Estimate by Project Location

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STREET	LIMITS	PA	ZONE	Street Type	Variable Depth	2" Deep	Rehab	Micro-Mill	Slurry Seal		Length	Average	Project Area	Variable Depth Cold Milling	2" Deep Cold Milling	GlasPave 25 Paving Mat	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		Type I	Type II	(FT)	Width (FT)	(SF)	Estimate - SF	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
ALTON PARKWAY	CULVER DR to W YALE LOOP	15	1	Arterial				x		x	906	60	60,860	-	-	-	-	9,060	-	6,762	0	0	0	0
ALTON PARKWAY	W YALE LOOP to MEADOWBROOK	15	1	Arterial				x		x	1,147	60	70,320	-	-	-	-	11,470	-	7,813	0	0	0	0
ALTON PARKWAY	MEADOWBROOK to LAKE	15	1	Arterial				x		x	696	60	43,510	-	-	-	-	6,960	-	4,834	0	0	0	0
ALTON PARKWAY	LAKE to CREEK	15	1	Arterial				x		x	1,692	60	104,520	-	-	-	-	16,920	-	11,613	0	0	0	0
ALTON PARKWAY	CREEK to E YALE LOOP	15	1	Arterial				x		x	2,797	60	175,370	-	-	-	-	27,970	-	19,486	0	0	0	0
ALTON PARKWAY	E YALE LOOP to JEFFERY	15	1	Arterial				x		x	1,055	60	80,524	-	-	-	-	10,550	-	8,947	0	0	0	0
BARRANCA PKWY	CULVER DR to W YALE LOOP	15	1	Arterial				x		x	952	60	69,320	-	-	-	-	9,520	-	7,702	0	0	0	0
BARRANCA PKWY	W YALE LOOP to LAKE	15	1	Arterial				x		x	1,783	60	114,730	-	-	-	-	17,830	-	12,748	0	0	0	0
BARRANCA PKWY	LAKE to CREEK	15	1	Arterial				x		x	1,658	60	103,480	-	-	-	-	16,580	-	11,498	0	0	0	0
BARRANCA PKWY	CREEK to LYON	15	1	Arterial				x		x	1,635	60	101,850	-	-	-	-	16,350	-	11,317	0	0	0	0
BARRANCA PKWY	LYON to E YALE LOOP	15	1	Arterial				x		x	1,325	60	87,600	-	-	-	-	13,250	-	9,733	0	0	0	0
BARRANCA PKWY	E YALE LOOP to JEFFERY	15	1	Arterial				x		x	1,040	60	62,400	-	-	-	-	10,400	-	6,933	0	0	0	0
BLUE LAKE N	WINJAMMER to YALE LOOP W	15	1	Residential				x		x	544	37	20,128	-	-	-	-	5,440	-	2,236	0	0	0	0
BLUE LAKE N	YALE LOOP W to DAYBREAK	15	1	Residential				x		x	747	37	27,639	-	-	-	-	7,470	-	3,071	0	0	0	0
BLUE LAKE N	DAYBREAK to SMOKETREE	15	1	Residential				x		x	662	37	24,494	-	-	-	-	6,620	-	2,722	0	0	0	0
BLUE LAKE N	SMOKETREE to BLUELAKE S	15	1	Residential				x		x	969	37	35,853	-	-	-	-	9,690	-	3,984	0	0	0	0
BLUE LAKE S	BLUE LAKE N to SOUTHWIND	15	1	Residential				x		x	646	37	23,902	-	-	-	-	6,460	-	2,656	0	0	0	0
BLUE LAKE S	SOUTHWIND to EARLYMORN	15	1	Residential				x		x	1,075	37	39,775	-	-	-	-	10,750	-	4,419	0	0	0	0
BLUE LAKE S	EARLYMORN to YALE LOOP W	15	1	Residential				x		x	1,307	37	48,359	-	-	-	-	13,070	-	5,373	0	0	0	0
BLUE LAKE S	YALE LOOP W to SUMMERSTONE	15	1	Residential				x		x	900	37	33,300	-	-	-	-	9,000	-	3,700	0	0	0	0
CHENILE	SPRINGBROOK N to TWEED	15	1	Residential	x		x				339	33	11,187	6,780	-	10,170	140	-	-	-	3	0	0	1
CHENILE	TWEED to END	15	1	Residential	x		x				466	33	17,178	9,320	-	15,780	215	-	-	-	2	0	0	2
CLEARBROOK	WEEPINGWOOD to THUNDERRUN	15	1	Residential	x		x				883	33	29,139	17,660	-	26,490	364	-	-	-	7	3	0	0
CORNSILK	HAZELNUT to END	15	1	Residential	x		x				180	33	7,740	3,600	-	7,200	97	-	-	-	1	0	1	0
COTTONCLOUD	EARLYMORN to END	15	1	Residential				x	x		327	33	12,591	-	-	-	-	3,270	1,399	-	0	0	0	0
CREEK	BAYPORTE to ALTON PKWY	15	1	Residential				x	x		228	37	8,436	-	-	-	-	2,280	937	-	0	0	0	0
CREEK	ALTON PKWY to BARRANCA PKWY	15	1	Residential				x		x	1643	60	87,480	-	-	-	-	16,430	-	9,720	0	0	0	0
CULVER DR	SAN LEANDRO to 405 NB TO CULVER RAMP	15	1	Arterial				x		x	1,294	76	102,844	-	-	-	-	12,940	-	11,427	0	0	0	0
CULVER DR	405 NB TO CULVER RAMP to I-405 BRIDGE DEC	15	1	Arterial				x		x	370	85	31,450	-	-	-	-	3,700	-	3,494	0	0	0	0
CULVER DR	BARRANCA PKWY to ALTON PKWY	15	1	Arterial				x		x	1,523	76	131,348	-	-	-	-	15,230	-	14,594	0	0	0	0
CULVER DR	ALTON PKWY to MAIN ST	15	1	Arterial				x		x	2,296	76	187,996	-	-	-	-	22,960	-	20,888	0	0	0	0
CULVER DR	MAIN ST to SAN LEANDRO	15	1	Arterial				x		x	1,293	76	110,668	-	-	-	-	12,930	-	12,296	0	0	0	0
DAYBREAK	BLUE LAKE N to END	15	1	Residential				x	x		773	33	27,309	-	-	-	-	7,730	3,034	-	0	0	0	0
DRIFTING SAND	FAIRDAWN to WHITECLOUD	15	1	Residential				x	x		501	33	16,533	-	-	-	-	5,010	1,837	-	0	0	0	0
EAGLE RUN	W YALE LOOP to WINDJAMMER	15	1	Residential	x		x				603	33	19,899	12,060	-	18,090	249	-	-	-	3	2	0	1
EARLYMORN	BLUE LAKE S to SILVERBREEZE	15	1	Residential				x	x		497	33	16,401	-	-	-	-	4,970	1,822	-	0	0	0	0
EARLYMORN	SILVERBREEZE to SPRINGACRE	15	1	Residential				x	x		574	33	18,942	-	-	-	-	5,740	2,105	-	0	0	0	0
ECHO RUN	W YALE LOOP to DATEWOOD	15	1	Residential	x		x				284	33	9,372	5,680	-	8,520	117	-	-	-	2	0	0	1
ECHO RUN	DATEWOOD to END	15	1	Residential	x		x				518	33	18,894	10,360	-	17,340	236	-	-	-	10	1	1	3
EMERALD	WOODFLOWER to SNOWFIELD	15	1	Residential	x		x				689	33	22,737	13,780	-	20,670	284	-	-	-	5	0	0	4
EMERALD	SNOWFIELD to LIMWOOD	15	1	Residential	x		x				635	33	20,955	12,700	-	19,050	262	-	-	-	5	0	0	3
FAIRDAWN	END to END	15	1	Residential				x	x		349	33	15,117	-	-	-	-	3,490	1,680	-	0	0	0	0
FALLCREST	WINTERHAVEN to AMBERLEAF	15	1	Residential	x		x				287	33	9,471	5,740	-	8,610	118	-	-	-	7	0	0	2
FALLINGSTAR	END to AUTUMNLEAF	15	1	Residential				x	x		470	37	19,190	-	-	-	-	4,700	2,132	-	0	0	0	0
FALLINGSTAR	AUTUMNLEAF to E YALE LOOP	15	1	Residential				x	x		386	37	14,282	-	-	-	-	3,860	1,587	-	0	0	0	0
FALLINGSTAR	E YALE LOOP to GREENMOOR	15	1	Residential				x	x		1,021	37	37,777	-	-	-	-	10,210	4,197	-	0	0	0	0
FLAXWOOD	SILKBERRY to HAZELNUT</																							

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STREET	LIMITS	PA	ZONE	Street Type	Variable Depth	2" Deep	Rehab	Micro-Mill	Slurry Seal		Length (FT)	Average Width (FT)	Project Area (SF)	Variable Depth Cold Milling	2" Deep Cold Milling	GlasPave 25 Paving Mat	Paving for 2" AC Overlay	Micromill for Slurry Seal	Type I Slurry Seal	Type II Slurry Seal	Water Valves Estimate	Recycled Water Estimate	Sewer Cleanout Estimate	Sewer Manhole Estimate
					Cold Mill	Cold Mill	2" AC		Type I	Type II				Estimate - SF	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY				
MISTY RUN	W YALE LOOP to THICKET	15	1	Residential	x		x				540	33	19,620	10,800	-	18,000	245	-	-	-	6	0	0	0
NEW MEADOW	TIMBER RUN to HALFMOON	15	1	Residential	x		x				802	33	27,966	16,040	-	25,560	350	-	-	-	3	0	0	3
OSBORN	LYON to E YALE LOOP	15	1	Residential				x		x	1,137	37	43,069	-	-	-	-	11,370	-	4,785	0	0	0	0
OVERLAND	DAYBREAK to FAIRDAWN	15	1	Residential				x	x		499	33	16,467	-	-	-	-	4,990	1,830	-	0	0	0	0
PEBBLE	FALLINGSTAR to HICKORY	15	1	Residential				x	x		506	33	16,698	-	-	-	-	5,060	1,855	-	0	0	0	0
PEBBLEPATH	WINDJAMMER to MELODY LANE	15	1	Residential	x		x				530	33	17,490	10,600	-	15,900	219	-	-	-	0	0	0	0
POPLIN	BLOOMDALE to CARNELIAN	15	1	Residential	x		x				235	33	7,755	4,700	-	7,050	97	-	-	-	0	0	0	0
PORTSIDE	WHITE CLOUD to SPINNAKER	15	1	Residential				x	x		501	33	16,533	-	-	-	-	5,010	1,837	-	0	0	0	0
QUIETMOON	END to SWIFTSAIL	15	1	Residential	x		x				168	33	7,344	3,360	-	6,840	92	-	-	-	1	0	0	1
QUIETMOON	SWIFTSAIL to WATERWAY	15	1	Residential	x		x				460	33	16,980	9,200	-	15,600	212	-	-	-	5	0	1	2
RACING WIND	SNOWAPPLE to WILDWHEAT	15	1	Residential				x	x		568	33	18,744	-	-	-	-	5,680	2,083	-	0	0	0	0
RAINSTAR	BLUE LAKE S to WATERSIDE	15	1	Residential	x		x				582	33	19,706	11,640	-	17,960	246	-	-	-	1	0	0	2
ROBINSONG	AUTUMNLEAF to SHADOWLEAF	15	1	Residential	x		x				446	33	14,718	8,920	-	13,380	184	-	-	-	7	0	0	2
ROCKWOOD	FAIRSIDE to SUMMERSTONE	15	1	Residential	x		x				361	33	11,913	7,220	-	10,830	149	-	-	-	8	1	0	1
ROCKWOOD	BLUE LAKE S to WILDWHEAT	15	1	Residential	x		x				238	33	7,854	4,760	-	7,140	98	-	-	-	2	0	0	1
ROCKWOOD	WILDWHEAT to FAIRSIDE	15	1	Residential	x		x				704	33	23,232	14,080	-	21,120	290	-	-	-	5	3	0	3
SAND	PEBBLE to END	15	1	Residential				x	x		181	33	7,773	-	-	-	-	1,810	864	-	0	0	0	0
SEAWIND	BLUE LAKE N to PORTSIDE	15	1	Residential	x		x				524	33	17,292	10,480	-	15,720	216	-	-	-	4	0	1	0
SHADOWLEAF	SPRINGFLOWER to ROBINSON	15	1	Residential	x		x				294	33	9,702	5,880	-	8,820	121	-	-	-	2	0	0	1
SHORELINE	BAYSIDE to BAYVIEW	15	1	Residential				x	x		228	33	9,024	-	-	-	-	2,280	1,003	-	0	0	0	0
SILKBERRY	HAZELNUT to END	15	1	Residential	x		x				302	33	11,766	6,040	-	10,860	147	-	-	-	4	0	0	2
SILKBERRY	BRIARGLEN to HAZELNUT	15	1	Residential	x		x				1,089	33	35,937	21,780	-	32,670	449	-	-	-	8	0	0	3
SILKLEAF	BLUE LAKE N to WAYFARER	15	1	Residential				x	x		711	33	23,463	-	-	-	-	7,110	2,607	-	0	0	0	0
SILVERBREEZE	EARLYMORN to END	15	1	Residential				x	x		315	33	12,195	-	-	-	-	3,150	1,355	-	0	0	0	0
SNOWAPPLE	BLUE LAKE S to RACING WIND	15	1	Residential				x	x		436	33	14,388	-	-	-	-	4,360	1,599	-	0	0	0	0
SNOWFIELD	SPRINGBROOK S to EMERALD	15	1	Residential	x		x				158	33	5,214	3,160	-	4,740	65	-	-	-	0	0	0	0
SOARING HAWK	TIMBER RUN to WHISTLING ISLE	15	1	Residential	x		x				853	33	29,649	17,060	-	27,090	371	-	-	-	3	0	0	3
SPINNAKER	SEAWIND to PORTSIDE	15	1	Residential	x		x				552	33	18,216	11,040	-	16,560	228	-	-	-	3	0	1	2
SPRING BUCK	SWEET RAIN to SILK LEAF	15	1	Residential				x	x		461	33	15,213	-	-	-	-	4,610	1,690	-	0	0	0	0
SPRINGACRE	EARLYMORN to BLUE LAKE S	15	1	Residential				x	x		976	37	36,112	-	-	-	-	9,760	4,012	-	0	0	0	0
SPRINGBROOK N	FALLCREST to E YALE LOOP	15	1	Residential	x		x				661	37	24,457	13,220	-	22,474	306	-	-	-	6	0	0	4
SPRINGBROOK N	E YALE LOOP to BRIARGLEN	15	1	Residential				x	x		775	37	28,675	-	-	-	-	7,750	3,186	-	0	0	0	0
SPRINGBROOK N	BRIARGLEN to CHENILE	15	1	Residential				x	x		414	37	15,318	-	-	-	-	4,140	1,702	-	0	0	0	0
SPRINGBROOK N	CHENILE to GOLDENROD	15	1	Residential				x	x		708	37	26,196	-	-	-	-	7,080	2,911	-	0	0	0	0
SPRINGBROOK N	GOLDENROD to SPRINGBROOK S	15	1	Residential				x	x		649	37	24,013	-	-	-	-	6,490	2,668	-	0	0	0	0
SPRINGBROOK S	SNOWFIELD to SUMMERLAKE	15	1	Residential	x		x				146	37	5,402	2,920	-	4,964	68	-	-	-	6	0	0	0
SPRINGBROOK S	WINTERMIST to E YALE LOOP	15	1	Residential	x		x				571	37	21,127	11,420	-	19,414	264	-	-	-	3	3	0	2
SPRINGBROOK S	E YALE LOOP to SNOWFIELD	15	1	Residential	x		x				379	37	14,023	7,580	-	12,886	175	-	-	-	7	0	0	2
SPRINGBROOK S	SUMMERLAKE to CLEARLAKE	15	1	Residential	x		x				958	37	35,446	19,160	-	32,572	443	-	-	-	2	2	0	4
SPRINGBROOK S	CLEARLAKE to SPRINGBROOK N	15	1	Residential	x		x				174	37	6,438	3,480	-	5,916	80	-	-	-	0	1	0	1
SPRINGFLOWER	AUTMUMNLEAF to END	15	1	Residential	x		x				613	33	22,029	12,260	-	20,190	275	-	-	-	6	0	1	3
SUMMERFIELD	SPRINGBROOK S to WINTERMIST	15	1	Residential				x	x		1,043	33	34,419	-	-	-	-	10,430	3,824	-	0	0	0	0
SUMMERSTONE	WHISTLING ISLE to ROCKWOOD	15	1	Residential	x		x				877	33	30,441	17,540	-	27,810	381	-	-	-	6	0	0	2
SUMMERSTONE	BLUE LAKE S to WHISTLING ISLE	15	1	Residential	x		x				826	33	27,258	16,520	-	24,780	341	-	-	-	7	0	0	4
SUNRIVER	OVERLAND to SOUTH END	15	1	Residential				x	x		180	33	7,740	-	-	-	-	1,800	860	-	0	0	0	0
SUNRIVER	NORTH END to OVERLAND	15	1	Residential				x	x		502	33	18,366	-	-	-	-	5,020	2,041	-	0	0	0	0
SWEET RAIN	BLUE LAKE N to WAYFARER	15	1	Residential				x	x		660													

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					Cold Mill	Cold Mill	2" AC	Type I	Type II	Estimate - SF				Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate		
WILDWHEAT	ROCKWOOD to RACING WIND	15	1	Residential				x	x		423	33	13,959	-	-	-	-	4,230	1,551	-	0	0	0	0	
WILLARD	BARRANCA PKWY to OSBORN	15	1	Residential				x		x	435	37	16,095	-	-	-	-	4,350	-	1,788	0	0	0	0	
WINDJAMMER	BLUE LAKE N to EAGLE RUN	15	1	Residential	x		x				733	33	24,189	14,660	-	21,990	302	-	-	-	9	3	3	3	
WINTERHAVEN	ROBINSONG to FALLCREST	15	1	Residential	x		x				732	33	24,156	14,640	-	21,960	302	-	-	-	10	0	0	4	
WINTERMIST	SPRINBROOK S to SUMMERFIELD	15	1	Residential				x	x		584	33	19,272	-	-	-	-	5,840	2,141	-	0	0	0	0	
WITHERSPOON	E YALE LOOP to END	15	1	Residential				x		x	444	33	16,452	-	-	-	-	4,440	-	1,828	0	0	0	0	
WOODFLOWER	SPRINGBROOK N to EMERALD	15	1	Residential	x		x				760	33	25,080	15,200	-	22,800	314	-	-	-	4	0	0	1	
YALE AVE	E YALE LOOP to WEST END	15	1	Residential				x		x	535	47	25,145	-	-	-	-	5,350	-	2,794	0	0	0	0	
YALE LOOP E	BARRANCA PKWY to OSBORN	15	1	Collector				x		x	443	76	33,668	-	-	-	-	4,430	-	3,741	0	0	0	0	
YALE LOOP E	OSBORN to WITHERSPOON	15	1	Collector				x		x	1,018	76	64,568	-	-	-	-	10,180	-	7,174	0	0	0	0	
YALE LOOP E	WITHERSPOON to ALTON PKWY	15	1	Collector				x		x	363	76	27,588	-	-	-	-	3,630	-	3,065	0	0	0	0	
YALE LOOP E	ALTON PKWY to SPRINGBROOK N	15	1	Collector		x	x				1,227	60	80,120	-	80,120	76,439	1,002	-	-	-	2	2	0	1	
YALE LOOP E	SPRINGBROOK N to FALLINGSTAR	15	1	Collector		x	x				985	60	62,600	-	62,600	59,645	783	-	-	-	12	5	0	1	
YALE LOOP E	SPRINGBROOK S to YALE AVE	15	1	Collector		x	x				972	62	64,264	-	64,264	61,348	803	-	-	-	11	5	0	2	
YALE LOOP E	GREENMOOR to SPRINGBROOK S	15	1	Collector		x	x				933	60	58,980	-	58,980	56,181	737	-	-	-	4	0	0	3	
YALE LOOP E	FALLINGSTAR to GREENMOOR	15	1	Collector		x	x				859	60	55,040	-	55,040	52,463	688	-	-	-	0	9	0	3	
YALE LOOP W	ALTON PKWY to BLUE LAKE N	15	1	Collector				x		x	886	62	58,932	-	-	-	-	8,860	-	6,548	0	0	0	0	
YALE LOOP W	BLUE LAKE N to MAIN ST	15	1	Collector				x		x	1,315	62	85,530	-	-	-	-	13,150	-	9,503	0	0	0	0	
YALE LOOP W	MAIN ST to BLUE LAKE S	15	1	Collector				x		x	1,296	62	86,352	-	-	-	-	12,960	-	9,595	0	0	0	0	
YALE LOOP W	BLUE LAKE S to MISTY RUN	15	1	Collector				x		x	1,363	62	90,006	-	-	-	-	13,630	-	10,001	0	0	0	0	
YALE LOOP W	MISTY RUN to YALE AVE	15	1	Collector		x	x				1,813	62	118,406	-	118,406	112,967	1,480	-	-	-	11	7	0	5	
ETHEL COPLIN WAY	END to SAN JOAQUIN	19	2	Residential	x		x				131	60	7,860	2,620	-	7,467	98	-	-	-	4	0	0	1	
ETHEL COPLIN WAY	SAN JOAQUIN to CULVER DR	19	2	Residential	x		x				1,247	60	59,016	24,940	-	55,275	738	-	-	-	12	0	0	3	
HARVARD AVE	MICHELSON DR to UNIVERSITY DR	19	2	Arterial						x	5,152	36	247,472	-	-	-	-	-	-	27,497	0	0	0	0	
MICHELSON DR	HARVARD AVE to PARKWAY	19	2	Arterial				x		x	691	60	41,760	-	-	-	-	6,910	-	4,640	0	0	0	0	
MICHELSON DR	PARKWAY to PARKSIDE	19	2	Arterial				x		x	1,369	60	82,140	-	-	-	-	13,690	-	9,127	0	0	0	0	
MICHELSON DR	PARKSIDE to CULVER DR	19	2	Arterial				x		x	676	60	46,060	-	-	-	-	6,760	-	5,118	0	0	0	0	
PARKSIDE DR	PARKVIEW LN to MICHELSON DR	19	2	Residential				x	x		541	52	18,394	-	-	-	-	5,410	2,044	-	0	0	0	0	
PARKVIEW LN	PARKWAY to PARKSIDE	19	2	Residential				x	x		1,403	37	51,911	-	-	-	-	14,030	5,768	-	0	0	0	0	
PARKVIEW LN	PARKSIDE to EAST END	19	2	Residential				x	x		426	37	17,762	-	-	-	-	4,260	1,974	-	0	0	0	0	
PARKVIEW LN	WEST END to PARKWAY	19	2	Residential				x	x		152	37	7,624	-	-	-	-	1,520	847	-	0	0	0	0	
PARKWAY DR	PARKVIEW LN to MICHELSON DR	19	2	Residential				x	x		320	52	22,400	-	-	-	-	3,200	2,489	-	0	0	0	0	
SAN JOAQUIN	ETHEL COPLIN WAY to LAS BRISAS	19	2	Residential	x		x				768	36	27,648	15,360	-	25,344	346	-	-	-	5	1	0	2	
SAN JOAQUIN	LAS BRISAS to VIEJO	19	2	Residential	x		x				1,392	37	51,504	27,840	-	47,328	644	-	-	-	6	0	0	4	
SAN JOAQUIN	VIEJO to UNIVERSITY DR	19	2	Residential	x		x				1,139	37	43,143	22,780	-	39,726	539	-	-	-	14	5	0	4	
ACACIA TREE LN	ACACIA TREE LN to ACACIA TREE LN	20	2	Residential				x	x		270	40	10,800	-	-	-	-	2,700	1,200	-	0	0	0	0	
ACACIA TREE LN	ACACIA TREE LN to END	20	2	Residential				x	x		935	40	37,400	-	-	-	-	9,350	4,156	-	0	0	0	0	
ACACIA TREE LN	ROYCE RD to ACACIA TREE LN	20	2	Residential				x	x		277	40	11,080	-	-	-	-	2,770	1,231	-	0	0	0	0	
ACACIA TREE LN	ACACIA TREE LN to END	20	2	Residential				x	x		815	40	32,600	-	-	-	-	8,150	3,622	-	0	0	0	0	
ALMOND TREE LN	MICHELSON DR to ALMOND TREE LN	20	2	Residential				x	x		299	36	10,764	-	-	-	-	2,990	1,196	-	0	0	0	0	
ALMOND TREE LN	ALMOND TREE LN to ALMOND TREE LN	20	2	Residential				x	x		360	36	12,960	-	-	-	-	3,600	1,440	-	0	0	0	0	
ALMOND TREE LN	ALMOND TREE LN to ALMOND TREE LN	20	2	Residential				x	x		499	36	17,964	-	-	-	-	4,990	1,996	-	0	0	0	0	
ALMOND TREE LN	ALMOND TREE LN to ALMOND TREE LN	20	2	Residential				x	x		436	36	15,696	-	-	-	-	4,360	1,744	-	0	0	0	0	
ALMOND TREE LN	ALMOND TREE LN to ALMOND TREE LN	20	2	Residential				x	x		572	36	20,592	-	-	-	-	5,720	2,288	-	0	0	0	0	
ALMOND TREE LN	ALMOND TREE LN to ALMOND TREE LN	20	2	Residential				x	x		527	36	18,972	-	-	-	-	5,270	2,108	-	0	0	0	0	
ANGELL ST	MONDO WAY to MICHELSON DR	20	2	Residential				x	x		475	33	15,477	-	-	-	-	4,750	1,720	-	0	0	0	0	
ASH TREE LN	MICHELSON DR to END	20	2	Residential				x																	

FY 2017-18 ANNUAL STREET REHABILITATION AND SLURRY SEAL
CIP 311801,361807 and 341701
Bid No. 18-1292

Quantities Estimate by Project Location

Quantities Estimate by Project Location																					IRWD Facilities			
STREET	LIMITS	PA	ZONE	Street Type	Variable Depth	2" Deep Cold Mill	Rehab 2" AC	Micro-Mill	Slurry Seal		Length (FT)	Average Width (FT)	Project Area (SF)	Variable Depth Cold Milling	2" Deep Cold Milling	GlasPave 25 Paving Mat	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					Type I				Type II	Estimate - SF	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate
CULVER DR	UNIVERSITY DR to SANDBURG	20	2	Arterial				x		x	1,820	39	72,980	-	-	-	-	18,200	-	8,109	0	0	0	0
CULVER DR	SANDBURG to MICHAELSON DR	20	2	Arterial				x		x	1,449	39	60,011	-	-	-	-	14,490	-	6,668	0	0	0	0
CULVER DR	I-405 BRIDGE DECK to MICHAELSON DR	20	2	Arterial				x		x	1,671	48	78,708	-	-	-	-	16,710	-	8,745	0	0	0	0
CULVER DR	MICHAELSON DR to SANDBURG	20	2	Arterial				x		x	1,449	39	57,511	-	-	-	-	14,490	-	6,390	0	0	0	0
CULVER DR	SANDBURG to UNIVERSITY DR	20	2	Arterial				x		x	1,820	39	72,980	-	-	-	-	18,200	-	8,109	0	0	0	0
CULVER DR	MICHAELSON DR to I-405 BRIDGE DECK	20	2	Arterial				x		x	1,671	39	68,669	-	-	-	-	16,710	-	7,630	0	0	0	0
CYPRESS TREE LN	PINYON TREE LN to END	20	2	Residential				x	x		1,427	40	57,080	-	-	-	-	14,270	6,342	-	0	0	0	0
CYPRESS TREE LN	CYPRESS TREE LN to CYPRESS TREE LN	20	2	Residential				x	x		404	40	16,160	-	-	-	-	4,040	1,796	-	0	0	0	0
CYPRESS TREE LN	CYPRESS TREE LN to CYPRESS TREE LN	20	2	Residential				x	x		501	40	20,040	-	-	-	-	5,010	2,227	-	0	0	0	0
DEWBERRY WAY	SANDBURG WAY to END	20	2	Residential				x	x		807	26	24,204	-	-	-	-	8,070	2,689	-	0	0	0	0
ELM TREE LN	CYPRESS TREE LN to MICHELSON DR	20	2	Residential				x	x		327	40	13,080	-	-	-	-	3,270	1,453	-	0	0	0	0
FOXGLOVE WAY	SANDBURG WAY to END	20	2	Residential				x	x		849	26	23,334	-	-	-	-	8,490	2,593	-	0	0	0	0
GERMAINDER WAY	SETON RD to END	20	2	Residential				x	x		770	26	22,114	-	-	-	-	7,700	2,457	-	0	0	0	0
GILLMAN ST	MCGUFFEY WAY to END	20	2	Residential				x	x		995	33	34,635	-	-	-	-	9,950	3,848	-	0	0	0	0
GILLMAN ST	PEABODY WAY to MICHELSON DR	20	2	Residential				x	x		740	33	24,156	-	-	-	-	7,400	2,684	-	0	0	0	0
GOLDENGLOW ST	SANDBURG WAY to UNIVERSITY DR	20	2	Residential				x	x		653	37	23,865	-	-	-	-	6,530	2,652	-	0	0	0	0
GREEN TREE LN	ROYCE RD to END	20	2	Residential				x	x		1,207	40	48,280	-	-	-	-	12,070	5,364	-	0	0	0	0
HICKORY TREE LN	PINYON TREE LN to END	20	2	Residential				x	x		655	36	23,580	-	-	-	-	6,550	2,620	-	0	0	0	0
HOPKINS ST	MONDO WAY to END	20	2	Residential				x	x		353	33	13,449	-	-	-	-	3,530	1,494	-	0	0	0	0
IRON BARK WAY	SETON RD to END	20	2	Residential				x	x		769	26	23,210	-	-	-	-	7,690	2,579	-	0	0	0	0
JOHN INMON WAY	END to MICHELSON DR	20	2	Residential	x		x				390	60	23,400	7,800	-	22,230	293	-	-	-	0	2	0	0
JORDAN AVE	MICHELSON DR to FEATHERWOOD	20	2	Residential	x		x				1,125	37	41,625	22,500	-	38,250	520	-	-	-	5	0	0	4
JORDAN AVE	FEATHERWOOD to EUCALYPTUS	20	2	Residential	x		x				870	37	32,190	17,400	-	29,580	402	-	-	-	6	1	0	5
JORDAN AVE	EUCALYPTUS to CANDLEBERRY	20	2	Residential	x		x				1,538	37	56,906	30,760	-	52,292	711	-	-	-	9	1	0	7
JORDAN AVE	CANDLEBERRY to MICHELSON DR	20	2	Residential	x		x				1,290	37	47,730	25,800	-	43,860	597	-	-	-	11	0	0	6
LANCEWOOD WAY	SETON RD to END	20	2	Residential				x	x		787	26	23,660	-	-	-	-	7,870	2,629	-	0	0	0	0
LAUREL TREE LN	PINYON TREE LN to END	20	2	Residential				x	x		829	40	33,160	-	-	-	-	8,290	3,684	-	0	0	0	0
LEATHERWOOD WAY	SANDBURG WAY to END	20	2	Residential				x	x		839	26	23,139	-	-	-	-	8,390	2,571	-	0	0	0	0
LEXICON ST	SANDBURG WAY to END	20	2	Residential				x	x		307	37	11,359	-	-	-	-	3,070	1,262	-	0	0	0	0
MANDRAKE WAY	SANDBURG WAY to END	20	2	Residential				x	x		800	26	21,950	-	-	-	-	8,000	2,439	-	0	0	0	0
MANN ST	MICHELSON DR to MCGUFFEY WAY	20	2	Residential				x	x		1,090	33	35,706	-	-	-	-	10,900	3,967	-	0	0	0	0
MANN ST	PEABODY WAY to END	20	2	Residential				x	x		1800	33	21,369	-	-	-	-	18,000	2,374	-	0	0	0	0
MAYAPPLE WAY	SANDBURG WAY to END	20	2	Residential				x	x		813	26	22,248	-	-	-	-	8,130	2,472	-	0	0	0	0
MCGUFFEY WAY	GILLMAN ST to MANN ST	20	2	Residential				x	x		270	33	8,910	-	-	-	-	2,700	990	-	0	0	0	0
MEADOWSWEET WAY	SANDBURG WAY to END	20	2	Residential				x	x		794	26	21,744	-	-	-	-	7,940	2,416	-	0	0	0	0
MONDO WAY	BASCOM ST to BUTLER ST	20	2	Residential				x	x		260	33	8,382	-	-	-	-	2,600	931	-	0	0	0	0
MONDO WAY	GILLMAN ST to MANN ST	20	2	Residential				x	x		230	33	7,326	-	-	-	-	2,300	814	-	0	0	0	0
MONDO WAY	HOPKINS ST to ANGELL ST	20	2	Residential				x	x		275	33	8,877	-	-	-	-	2,750	986	-	0	0	0	0
NORTON ST	MICHELSON DR to PISTACHIO WAY	20	2	Residential				x	x		600	33	19,602	-	-	-	-	6,000	2,178	-	0	0	0	0
OAK TREE LN	OAK TREE LN to END	20	2	Residential				x	x		964	40	38,560	-	-	-	-	9,640	4,284	-	0	0	0	0
OAK TREE LN	OAK TREE LN to OAK TREE LN	20	2	Residential				x	x		270	40	10,800	-	-	-	-	2,700	1,200	-	0	0	0	0
OAK TREE LN	OAK TREE LN to OAK TREE LN	20	2	Residential				x	x		707	40	28,280	-	-	-	-	7,070	3,142	-	0	0	0	0
OAK TREE LN	ROYCE RD to OAK TREE LN	20	2	Residential				x	x		254	40	10,160	-	-	-	-	2,540	1,129	-	0	0	0	0
PALMENTO WAY	SETON RD to END	20	2	Residential				x	x		769	26	23,186	-	-	-	-	7,690	2,576	-	0	0	0	0
PEABODY WAY	GILLMAN ST to MANN ST	20	2	Residential				x	x		235	33	7,491	-	-	-	-	2,350	832	-	0	0	0	0
PINYON TREE LN	END to MICHELSON DR	20	2	Residential				x	x		955	36	41,880	-	-	-	-	9,550	4,653	-	0	0	0	0
PISTACHIO WAY	GILLMAN ST to MANN ST	20	2	Residential				x	x		275	33	8,811	-	-	-	-	2,750	979	-	0	0	0	0
PISTACHIO WAY	NORTON ST to BUTLER ST	20	2																					

Quantities Estimate by Project Location

																					IRWD Facilities			
STREET	LIMITS	PA	ZONE	Street Type	Variable Depth	2" Deep	Rehab	Micro-Mill	Slurry Seal		Length (FT)	Average Width (FT)	Project Area (SF)	Variable Depth Cold Milling	2" Deep Cold Milling	GlasPave 25 Paving Mat	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		Type I	Type II				Estimate - SF	Estimate - SF	Estimate - SF	Estimate - TN	Estimate - SF	Estimate - SY	Estimate - SY	Estimate	Estimate	Estimate	Estimate
SEQUOIA TREE LN	SEQUOIA TREE LN to MICHELSON DR	20	2	Residential				x	x		183	36	6,588	-	-	-	-	1,830	732	-	0	0	0	0
SEQUOIA TREE LN	SEQUOIA TREE LN to SEQUOIA TREE LN	20	2	Residential				x	x		726	36	26,136	-	-	-	-	7,260	2,904	-	0	0	0	0
SEQUOIA TREE LN	SEQUOIA TREE LN to SEQUOIA TREE LN	20	2	Residential				x	x		270	36	9,720	-	-	-	-	2,700	1,080	-	0	0	0	0
SETON RD	QUEENS WREATH WAY to MICHELSON DR	20	2	Residential				x	x		1,518	37	55,870	-	-	-	-	15,180	6,208	-	0	0	0	0
SETON RD	CULVER DR to QUEENS WREATH WAY	20	2	Residential				x	x		1,654	37	60,902	-	-	-	-	16,540	6,767	-	0	0	0	0
SIERRA TREE LN	ROYCE RD to END	20	2	Residential				x	x		849	40	33,960	-	-	-	-	8,490	3,773	-	0	0	0	0
SPICEWOOD WAY	SANDBURG WAY to END	20	2	Residential				x	x		809	26	24,310	-	-	-	-	8,090	2,701	-	0	0	0	0
SPRUCE TREE LN	PINYON TREE LN to END	20	2	Residential				x	x		449	36	16,164	-	-	-	-	4,490	1,796	-	0	0	0	0
TAMARACK	ROYCE RD to CASSIA TREE LN	20	2	Residential	x		x				459	40	18,360	9,180	-	16,983	230	-	-	-	8	0	0	1
TAMARACK	CASSIA TREE LN to ROSA DREW LN	20	2	Residential	x		x				513	40	20,520	10,260	-	18,981	257	-	-	-	4	0	0	2
WHITEWOOD WAY	SANDBURG WAY to END	20	2	Residential				x	x		802	26	24,146	-	-	-	-	8,020	2,683	-	0	0	0	0
WILLOW TREE LN	MICHELSON DR to END	20	2	Residential				x	x		1,451	40	58,040	-	-	-	-	14,510	6,449	-	0	0	0	0
WILLOW TREE LN	WILLOW TREE LN to END	20	2	Residential				x	x		744	40	29,760	-	-	-	-	7,440	3,307	-	0	0	0	0
WINTERSWEET WAY	SETON RD to END	20	2	Residential				x	x		796	26	23,876	-	-	-	-	7,960	2,653	-	0	0	0	0
YALE AVE	MICHELSON DR to ROYCE RD	20	2	Collector	x		x				1,640	60	98,400	32,800	-	93,480	1,230	-	-	-	5	3	0	1
YALE AVE	ROYCE RD to UNIVERSITY DR	20	2	Collector	x		x				660	64	42,240	13,200	-	40,260	528	-	-	-	0	1	0	1
YELLOWWOOD WAY	SANDBURG WAY to END	20	2	Residential				x	x		795	26	23,904	-	-	-	-	7,950	2,656	-	0	0	0	0
BARRANCA PKWY	FIRESTATION to HARVARD	14	3	Arterial		x	x				1,100	76	92,100	-	92,100	88,800	1,151	-	-	-	10	4	0	4
BARRANCA PKWY	HARVARD AVE to PASEO WESTPARK	14	3	Arterial		x	x				1,600	76	132,600	-	132,600	127,800	1,658	-	-	-	2	1	0	5
BARRANCA PKWY	PASEO WESTPARK to SANTA ROSA	14	3	Arterial		x	x				1,053	76	92,428	-	92,428	89,269	1,155	-	-	-	3	0	0	0
BARRANCA PKWY	SANTA ROSA to CULVER DR	14	3	Arterial		x	x				924	76	93,074	-	93,074	90,302	1,163	-	-	-	4	2	0	1
LAKEVIEW SENIOR CENT	20 LAKE ROAD	15	4	Parking Lot		x	x						232,959	-	232,959	-	2,912	-	-	-	0	0	0	0
MARK DAILY PARK	308 E. YALE LOOP	15	4	Parking Lot		x	x						16,507	-	16,507	-	206	-	-	-	0	0	0	0
HICKS CANYON TRAIL	TRAIL ENTRANCE @ PORTOLA PKWY to FORK AT PETER CANYON TRAIL		4	AC Trail		x	x				11,976	11	131,831	-	131,831	-	1,648	-	-	-	0	0	0	0
PETERS CANYON TRAIL	FORK AT HICKS CANYON TRAIL to UNDERCROSSING AT IRVINE BLVD		4	AC Trail		x	x				1,250	15	18,750	-	18,750	-	234	-	-	-	0	0	0	0
PETERS CANYON TRAIL	FORK AT HICKS CANYON TRAIL to PORTOLA BLVD		4	AC Trail		x	x				2,850	14	39,900	-	39,900	-	499	-	-	-	0	0	0	0
Estimates & Contingencies					X	X	X	X	X	X			-	2,960	10,441	2,900	737	890	1,466	1,670	-	-	-	-
													-	-	-	-	-	-	-	-	-	-	-	-
247,971												9,718,780		1,000,000	1,300,000	2,520,000	40,000	1,450,000	341,000	393,000	464	71	13	186

FY2017-18 Annual Pavement Maintenance Bid No. 18-1292

SAMPLE LIST OF CONCRETE REPAIR LOCATION

NO.	LOCATION	TYPE OF REPAIR	SQ FT	Curb &		ADA		ZONE
				Gutter	4" PCC	8" PCC	Ramp	
1	S/B West Yale Loop 30' S/O Alton	4 inch PCC	75		75			Zone 1
2	S/B West Yale Loop 200' S/O Alton	4 inch PCC	300		300			Zone 1
3	S/B West Yale Loop 250' S/O Alton	4 inch PCC	250		250			Zone 1
4	4 Wind Jammer	4 inch PCC	150		150			Zone 1
5	6 Wind Jammer	4 inch PCC	100		100			Zone 1
6	42 Wind Jammer	4 inch PCC	100		100			Zone 1
7	76 Wind Jammer	4 inch PCC	100		100			Zone 1
8	37 Wind Jammer	4 inch PCC	75		75			Zone 1
9	78 Wind Jammer	8 inch PCC	150			150		Zone 1
10	64 Wind Jammer R Corner	4 inch PCC	125		125			Zone 1
11	Wind Jammer @ Pebble Path	Curb & Gutter	0	60				Zone 1
12	1 Melody Lane	4 inch PCC	75		75			Zone 1
13	1 Wildbrook	4 inch PCC	175		175			Zone 1
14	12 Melody Lane @ Pebble Path	4 inch PCC	225		225			Zone 1
15	56 Eaglerun	4 inch PCC	125		125			Zone 1
16	57 Eaglerun	4 inch PCC	100		100			Zone 1
17	12 Eaglerun	4 inch PCC	100		100			Zone 1
18	S/B West Yale Loop N/O Eaglerun	4 inch PCC	100		100			Zone 1
19	S/B West Yale Loop 50' S/O West Yale Loop	4 inch PCC	150		150			Zone 1
20	S/B West Yale Loop 50' N/O Main	4 inch PCC	250		250			Zone 1
21	W/B Main 50' E/O Culver	4 inch PCC	125		125			Zone 1
22	N/B West Yale Loop 50' N/O Main	Curb & Gutter	0	40				Zone 1
23	7 West Yale Loop	Curb & Gutter	0	40				Zone 1
24	W/B Timber @ Foxhollow	4 inch PCC	125		125			Zone 1
25	ACROSS FROM #66 TIMBER RUN	4 inch PCC	175		175			Zone 1
26	ACROSS FROM #35 SOARING HAWK	4 inch PCC	225		225			Zone 1
27	#48 WHISTLING WIND	4 inch PCC	100		100			Zone 1
28	#37 WHISTLING WIND	4 inch PCC	100		100			Zone 2
29	#46 WHISTLING WIND	4 inch PCC	100		100			Zone 2
30	#21 WHISTLING WIND	4 inch PCC	175		175			Zone 2
31	#2 NEW NEADOW	4 inch PCC	100		100			Zone 2
R1	E/B ALTON @ WEST YALE LOOP S/W CORNER	Curb Access Ramp	0				1	Zone 2
R2	E/B ALTON @ WEST YALE LOOP S/E CORNER	Curb Access Ramp	0				1	Zone 3
R3	W/B ALTON @ WEST YALE LOOP N/E CORNER	Curb Access Ramp	0				1	Zone 3
R4	W/B ALTON @ WEST YALE LOOP N/W CORNER	Curb Access Ramp	0				1	Zone 3
R5	E/B ALTON @ LAKE W/E CORNER	Curb Access Ramp	0				1	Zone 1
R6	E/B ALTON @ LAKE N/E CORNER	Curb Access Ramp	0				1	Zone 1
R7	W/B ALTON @ LAKE N/E CORNER	Curb Access Ramp	0				1	Zone 1
R8	W/B ALTON @ LAKE N/W CORNER	Curb Access Ramp	0				1	Zone 1
R9	E/B ALTON @ EAST YALE LOOP S/W CORNER	Curb Access Ramp	0				1	Zone 1
R10	E/B ALTON @ EAST YALE LOOP S/E CORNER	Curb Access Ramp	0				1	Zone 1
32	MICHELSON W/B 10 FT W/O UNIVERSITY	4 inch PCC	100		100			Zone 2
33	MICHELSON W/B 20 FT W/O JORDAN	4 inch PCC	75		75			Zone 2
34	MICHELSON W/B 100 FT W/O JORDAN	4 inch PCC	200		200			Zone 2

FY2017-18 Annual Pavement Maintenance Bid No. 18-1292

SAMPLE LIST OF CONCRETE REPAIR LOCATION

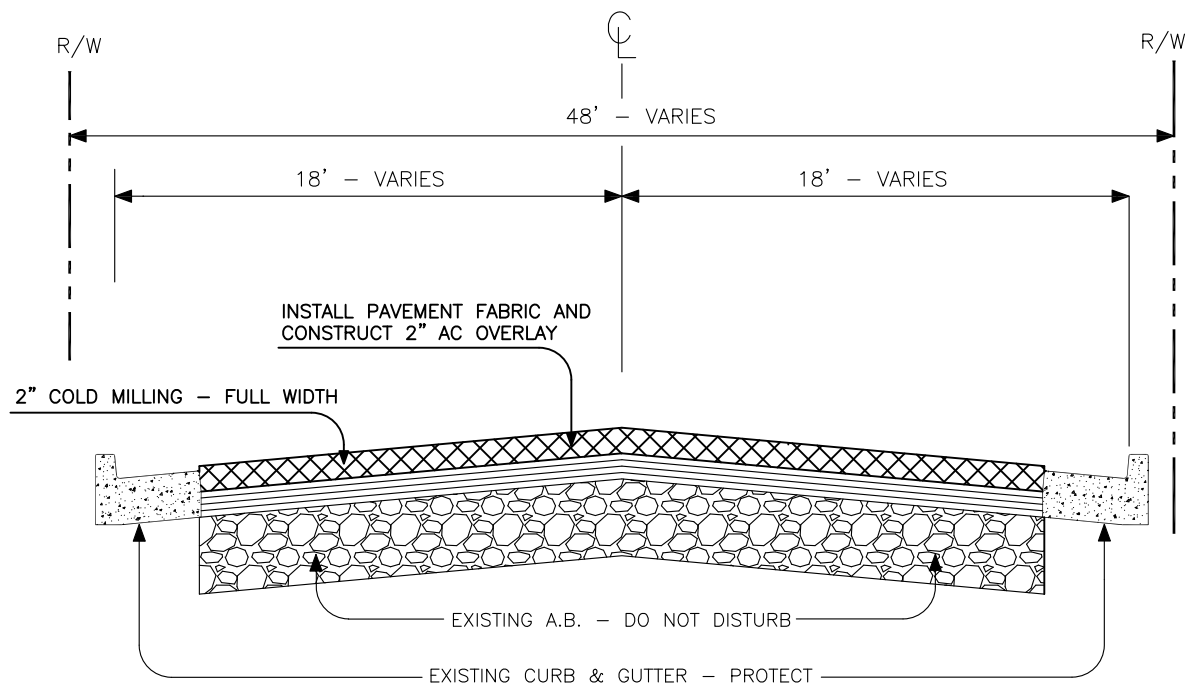
NO.	LOCATION	TYPE OF REPAIR	SQ FT	Curb &		ADA		ZONE
				Gutter	4" PCC	8" PCC	Ramp	
35	MICHELSON W/B 150 FT W/O JORDAN	4 inch PCC	125		125			Zone 2
36	MICHELSON W/B 250 FT W/O JORDAN	4 inch PCC	100		100			Zone 2
37	MICHELSON W/B 250 FT W/O JORDAN	4 inch PCC	100		100			Zone 2
38	MICHELSON W/B 300 FT W/O JORDAN	4 inch PCC	75		75			Zone 2
39	MICHELSON W/B 50 FT E/O BRIDLEWOOD N/S	4 inch PCC	125		125			Zone 2
40	MICHELSON W/B 100 FT E/O ROYCE N/S	4 inch PCC	175		175			Zone 2
41	MICHELSON / ROYCE N/S @ SCHOOL	4 inch PCC	100		100			Zone 2
42	MICHELSON E/S 50 FT E/O YALE @ BUS STOP	4 inch PCC	100		100			Zone 2
43	YALE 10 FT N/O MICHELSON E/S	4 inch PCC	75		75			Zone 2
44	YALE S/B 200 FT S/O MICHELSON W/S	4 inch PCC	225		225			Zone 2
45	YALE 120 FT N/O ROYCE W/S	4 inch PCC	100		100			Zone 2
46	YALE 10 FT S/O ROYCE W/S	4 inch PCC	100		100			Zone 2
47	ROYCE S/O MICHELSON W/S	4 inch PCC	150		150			Zone 2
48	ROYCE 75 FT N/O GREENTREE W/S	4 inch PCC	100		100			Zone 2
R11	JORDAN E /LEMON TREE N/E S/E	Curb Access Ramp	0				1	Zone 2
R12	JORDAN E /JUNIPER N/E S/E	Curb Access Ramp	0				1	Zone 2
R13	JORDAN E /MIMOSA N/E S/E	Curb Access Ramp	0				1	Zone 2
R14	JORDAN E /CASHEW N/E S/E	Curb Access Ramp	0				1	Zone 2
R15	JORDAN E /HAWTHORN N/E S/E	Curb Access Ramp	0				1	Zone 2
R16	JORDAN E /FOREST N/E S/E	Curb Access Ramp	0				1	Zone 2
R17	JORDAN E /CAROB N/E S/E	Curb Access Ramp	0				1	Zone 2
R18	JORDAN E /CAMPHOR N N/E S/E	Curb Access Ramp	0				1	Zone 2
R19	JORDAN E DOGWOOD N N/E S/E	Curb Access Ramp	0				1	Zone 2
R20	JORDAN E CHERRY N N/E S/E	Curb Access Ramp	0				1	Zone 2
R21	JORDAN E CITRON N/E S/E	Curb Access Ramp	0				1	Zone 2
R22	JORDAN E CHESTNUT N/E S/E	Curb Access Ramp	0				1	Zone 2
R23	JORDAN E CANDLEBERRY N/E S/E	Curb Access Ramp	0				1	Zone 2
R24	JORDAN E /CINNAMON N/E S/E	Curb Access Ramp	0				1	Zone 2
R25	JORDAN E /BOXWOOD N/E S/E	Curb Access Ramp	0				1	Zone 2
Totals				140	5,825	150	25	

APPENDIX C

STANDARD PLANS

Copies of the following agency standard plans and/or details referenced by the plans or Special Provisions are attached hereto and are made a part of these Special Provisions.

<u>AGENCY:</u>	<u>STD. PLAN NO.:</u>	<u>DESCRIPTION:</u>
City of Irvine	Project Detail No. 1	AC Pavement Rehabilitation (Consistent Depth Cold Mill)
City of Irvine	Project Detail No. 2	AC Pavement Rehabilitation (Variable Depth Cold Mill)
City of Irvine	Project Detail No. 3	Pavement Transitions to Existing Grade for Transverse Joints
City of Irvine	Project Detail No. 4	Slurry Seal Surfacing (Type I, Type II or PME-RAP)
City of Irvine	200	Concrete Curbs and Gutters
City of Irvine	201	Sidewalk Detail
City of Irvine	202	Curb Return Details
City of Irvine	203	Crosswalk Detail
City of Irvine	204	Driveway Type I
City of Irvine	205	Driveway Type II
City of Irvine	214	Survey Monument
City of Irvine	311 (3 Sheets)	Traffic Manhole Frame and Cover
City of Irvine	312	36" Reinforced Concrete Manhole
City of Irvine	313	48" Reinforced Concrete Manhole
City of Irvine	314	24" Reinforced Concrete Grade Rings
City of Irvine	410	Off-Street Bike Trail Intersection
City of Irvine: Traffic Std.	TS-2	Traffic Signal Pull Boxes
City of Irvine: Traffic Std.	TS-8A	Traffic Signal Loop Detection Details
SPPWC	111-5	Curb Ramp
SPPWC	122-2	Cross and Longitudinal Gutters
Caltrans	A88A	Curb Ramp Details
Caltrans	A88B	Curb Ramp and Island Passageway Details
Irvine Ranch Water District	W-22	Water/Reclaim Water Valve Box
Irvine Ranch Water District	S-1	Sewer Manhole
Irvine Ranch Water District	S-5	Sewer Terminal Cleanout
Caltrans	A20A	Pavement Markers and Traffic Lines
Caltrans	A20B	Pavement Markers and Traffic Lines
Caltrans	A20C	Pavement Markers and Traffic Lines
Caltrans	A20D	Pavement Markers and Traffic Lines
City of Irvine		Designated and Restricted Truck Routes



NOT TO SCALE

LEGEND:



2\"/>



EXISTING AC PAVEMENT



EXISTING AGGREGATE BASE

NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.
2. LANE CLOSURES SHALL ONLY BE PERFORMED DURING APPROVED WORKING HOURS PER SECTION 601-6.6. TRAFFIC CONTROL PLAN SUBMITTAL MAY BE REQUIRED PER SECTION 601-2.
3. MANHOLES AND OTHER SURFACE UTILITY COVERS SHALL BE LOWERED PRIOR TO COLD MILLING OPERATIONS IN ACCORDANCE WITH SECTION 302-5.8.4 OF THE PROJECT SPECIAL PROVISIONS.
4. AC OVERLAY PAVING SHALL BE PLACED WITHIN 3 DAYS AFTER COLD MILLING PER SECTION 302-5.
5. ADJUSTMENT OF MANHOLES AND INSTALLATION OF TRAFFIC STRIPING AND MARKINGS SHALL BE SCHEDULED AHEAD OF TIME AND PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



STREET REHABILITATION AND SLURRY SEAL PROJECT

**AC PAVEMENT REHABILITATION
(CONSISTENT DEPTH COLD MILL)**

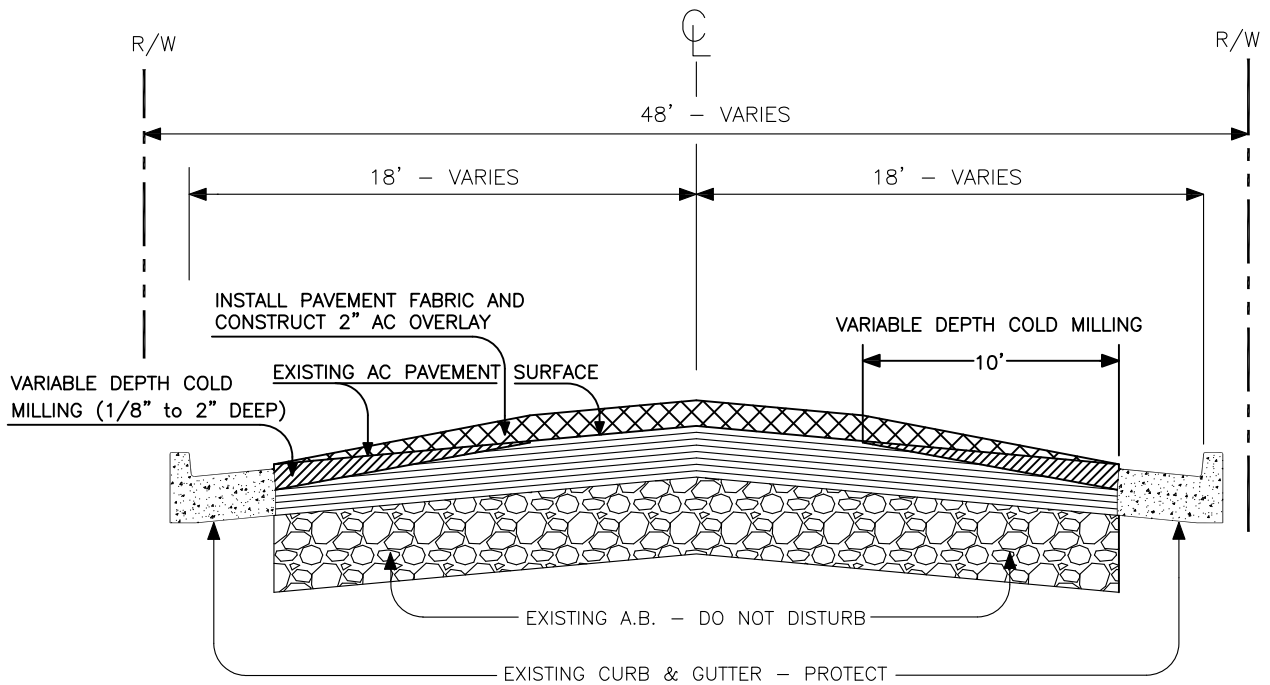
PUBLIC WORKS DEPARTMENT
STREET MAINTENANCE DIVISION

DATE: 04-25-2017

PROJECT
DETAIL No.

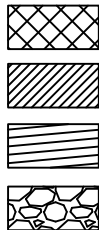
1

SHEET 1 of 1



NOT TO SCALE

LEGEND:



CONSTRUCT AC OVERLAY WITH PAVEMENT FABRIC (IF SPECIFIED)

VARIABLE DEPTH COLD MILLING - 1/8" TO 2" DEEP

EXISTING AC PAVEMENT

EXISTING AGGREGATE BASE

NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.
2. LANE CLOSURES SHALL ONLY BE PERFORMED DURING APPROVED WORKING HOURS PER SECTION 601-6.6. TRAFFIC CONTROL PLAN SUBMITTAL MAY BE REQUIRED PER SECTION 601-2.
3. AC OVERLAY PAVING SHALL BE PLACED WITHIN 3 DAYS AFTER COLD MILLING PER SECTION 302-5.
4. ADJUSTMENT OF MANHOLES AND INSTALLATION OF TRAFFIC STRIPING AND MARKINGS SHALL BE SCHEDULED AHEAD OF TIME AND PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



STREET REHABILITATION AND SLURRY SEAL PROJECT

AC PAVEMENT REHABILITATION
(VARIABLE DEPTH COLD MILL)

PUBLIC WORKS DEPARTMENT
STREET MAINTENANCE DIVISION

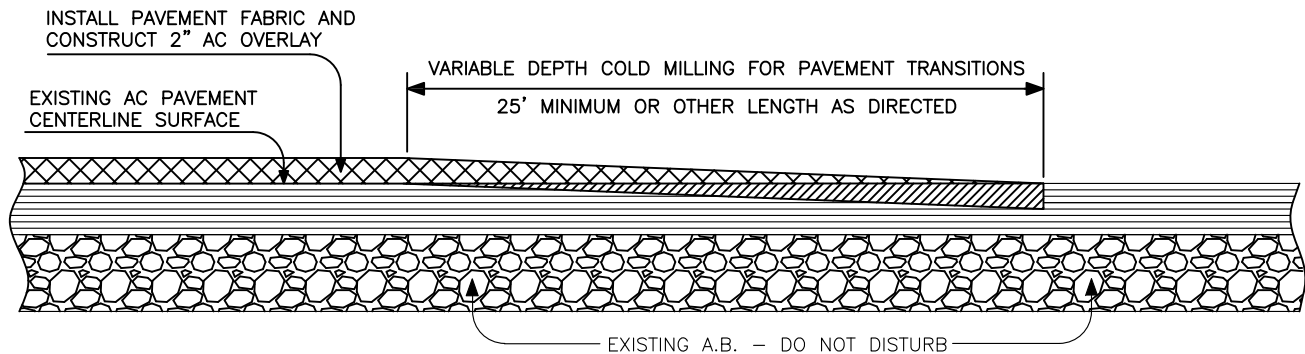
DATE: 04-25-2017

PROJECT
DETAIL No.

2

SHEET 1 of 1

PROFILE VIEW OF CENTERLINE

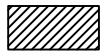


NOT TO SCALE

LEGEND:



CONSTRUCT AC OVERLAY WITH PAVEMENT FABRIC (IF SPECIFIED)



VARIABLE DEPTH COLD MILLING FOR PAVEMENT TRANSITIONS TO EXISTING GRADE - 1/8" TO 2" DEEP



EXISTING AC PAVEMENT



EXISTING AGGREGATE BASE

NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.
2. LANE CLOSURES SHALL ONLY BE PERFORMED DURING APPROVED WORKING HOURS PER SECTION 601-6.6. TRAFFIC CONTROL PLAN SUBMITTAL MAY BE REQUIRED PER SECTION 601-2.
3. COLD MILLING AND TEMPORARY AC RAMPING FOR TRANSVERSE JOINTS SHALL BE PERFORMED WITHIN THE SAME WORK DAY IN ACCORDANCE WITH SECTION 302-1.10 OF THE SPECIAL PROVISIONS.
4. COLD MILLING FOR PERMANENT PAVEMENT TRANSITIONS TO EXISTING GRADE SHALL BE PERFORMED FOR THE FULL WIDTH OF THE TRANSVERSE JOINT, OR AS DIRECTED BY THE AGENCY REPRESENTATIVE.
5. MINIMUM TRANSITION LENGTH SHALL BE 25 FEET. LONGER TRANSITION LENGTH MAY BE REQUIRED FOR HIGH SPEED ROADS.



STREET REHABILITATION AND SLURRY SEAL PROJECT

PAVEMENT TRANSITIONS TO EXISTING
GRADE FOR TRANSVERSE JOINTS

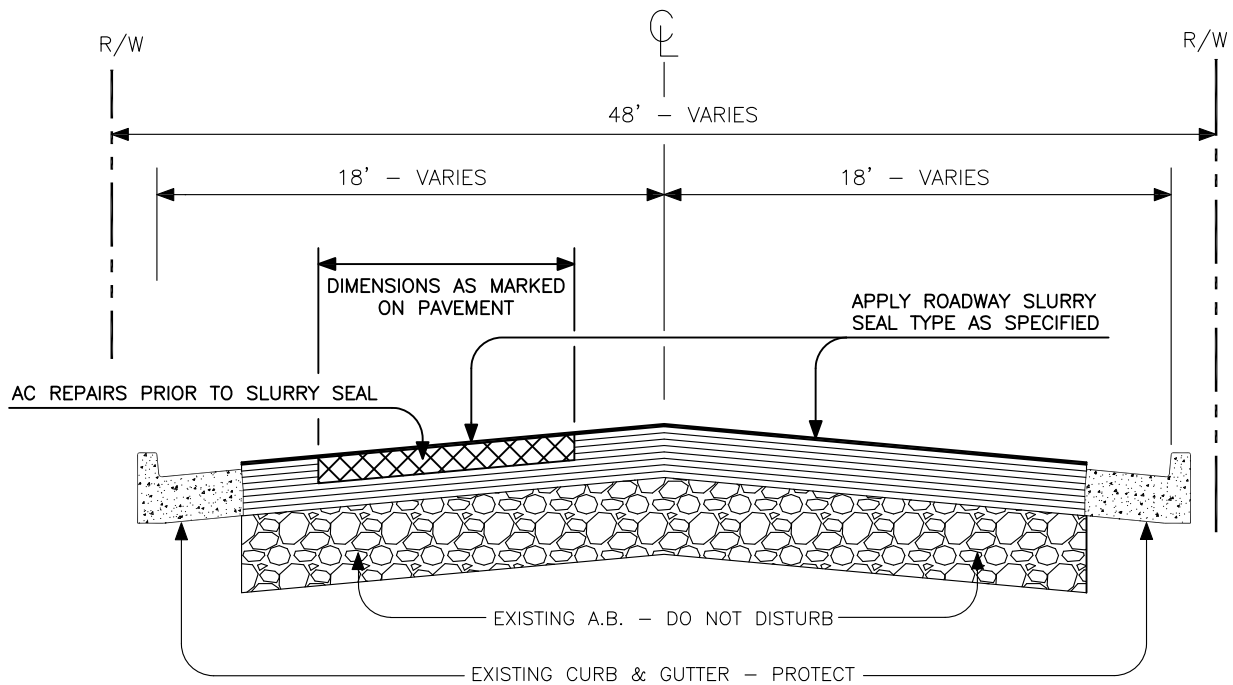
PUBLIC WORKS DEPARTMENT
STREET MAINTENANCE DIVISION

DATE: 04-25-2017

PROJECT
DETAIL No.

3

SHEET 1 of 1



NOT TO SCALE

LEGEND:



2" COLD MILL AND AC PAVING REPAIRS PRIOR TO SLURRY SEAL (OR OTHER DEPTH AS REQUIRED)



TYPE I OR TYPE II SLURRY SEAL AS SPECIFIED



EXISTING AC PAVEMENT



EXISTING AGGREGATE BASE

NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.
2. LANE CLOSURES SHALL ONLY BE PERFORMED DURING APPROVED WORKING HOURS PER SECTION 601-6.6. TRAFFIC CONTROL PLAN SUBMITTAL MAY BE REQUIRED PER SECTION 601-2.
3. COLD MILLING AND AC PAVING FOR AC REPAIRS PRIOR TO SLURRY SEAL SHALL BE PERFORMED WITHIN THE SAME WORK DAY IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
4. MICRO-MILLING OF AC PAVEMENT PRIOR TO SLURRY SEAL SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 302-1 OF THE SPECIAL PROVISIONS, WHEN REQUIRED BY THE CONTRACT.
5. SLURRY SEAL SHALL BE OF THE TYPE AND KIND SPECIFIED FOR EACH PROJECT LOCATION AND SHALL CONFORM TO SECTION 203-5, SECTION 302-4 AND THE SPECIAL PROVISIONS.
6. CONTRACTOR SHALL PERFORM FIELD SAMPLING AND TESTING OF SLURRY SEAL IN ACCORDANCE WITH SECTION 302-4.9.1 OF THE SPECIAL PROVISIONS.



STREET REHABILITATION AND SLURRY SEAL PROJECT

SLURRY SEAL SURFACING
(TYPE I, TYPE II OR PME-RAP)

PUBLIC WORKS DEPARTMENT
STREET MAINTENANCE DIVISION

DATE: 04-25-2017

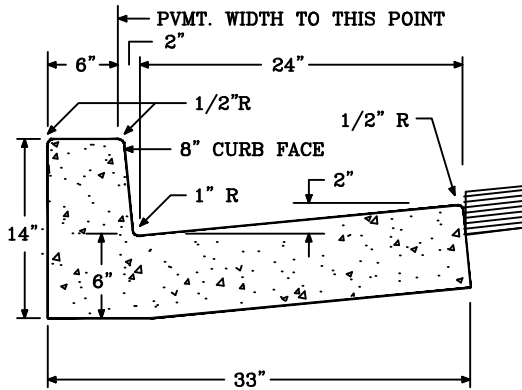
PROJECT
DETAIL No.

4

SHEET 1 of 1

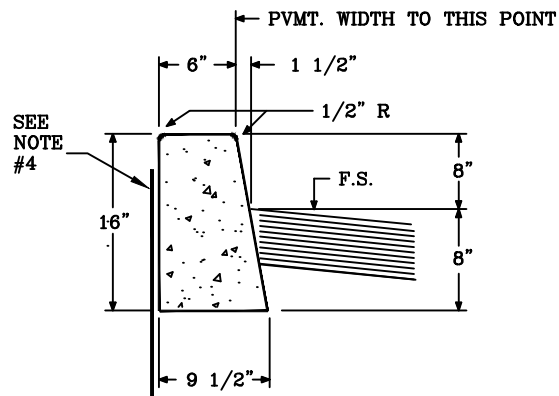


CITY OF IRVINE PUBLIC WORKS



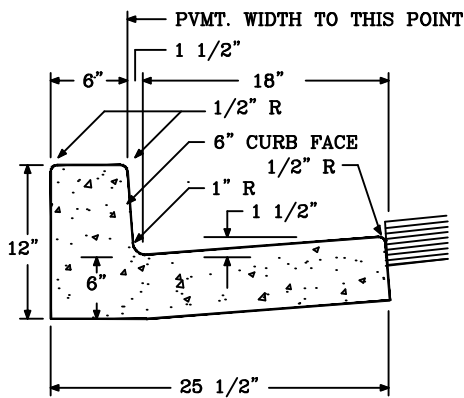
CONC. PER L.F. = .0645 CU. YDS.
1 CU. YD. = 15.5 L.F.

TYPE "A-2"



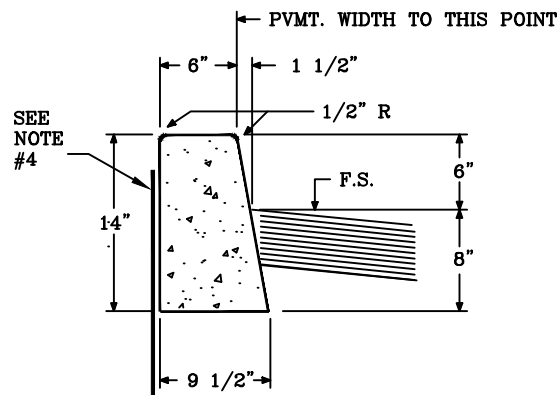
CONC. PER L.F. = .0319 CU. YDS.
1 CU. YD. = 31.3 L.F.

TYPE "B-8"



CONC. PER L.F. = .0505 CU. YDS.
1 CU. YD. = 19.8 L.F.

TYPE "D"



CONC. PER L.F. = .0279 CU. YDS.
1 CU. YD. = 35.8 L.F.

TYPE "B-6"

CONCRETE CURBS AND GUTTERS

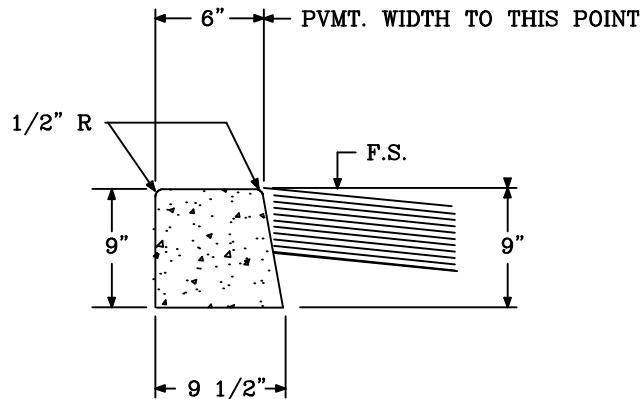
Mark Carroll
MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

STD. PLAN
200
SHEET 1 OF 2



CITY OF IRVINE PUBLIC WORKS



CONC. PER L.F. = .0161 CU. YDS.
1 CU. YD. = 62.1 L.F.


TYPE "C-6"

NOT TO BE USED ON PUBLIC STREET R/W

NOTES :

1. ALL CURBS AND GUTTERS SHALL BE PORTLAND CEMENT CONCRETE. CONTROL
2. WEAKENED PLANE JOINTS PURSUANT TO SECTION 303-5.4.3 OF THE GREENBOOK (EXCEPTION: MAX. 10 FOOT INTERVALS)
3. PAVEMENT SHALL BE 3/8 INCH HIGHER THAN EDGE OF GUTTER ON TYPE "A-2" AND TYPE "D".
4. MOISTURE BARRIERS SHALL BE REQUIRED IN ACCORDANCE WITH STD. PLAN No. 222.

CONCRETE CURBS AND GUTTERS


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

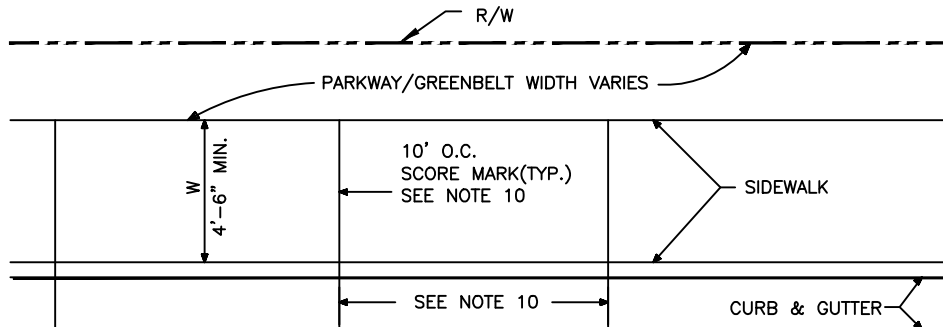
AUGUST 2013
DATE

STD. PLAN
200

SHEET 2 OF 2

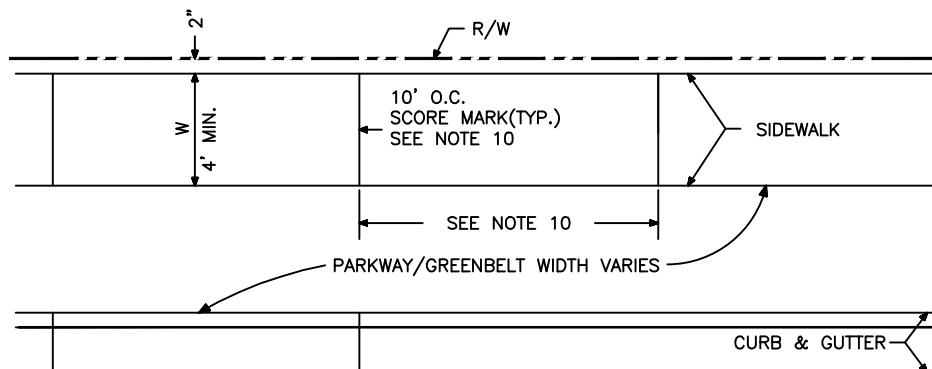


CITY OF IRVINE PUBLIC WORKS



Notes:

1. Thickness of sidewalk shall be 4-inches except in driveway aprons (See City Standard Plan 204, 205 and/or 206). For sidewalk locations with the need for maintenance vehicle use, a recommended pavement structural section shall be submitted and approved by the City Engineer.
2. Curb and gutter should have 2" deep weakened plane joints at the ends of curb returns and score marks at intervals shown hereon pursuant to Section 303-5.4.3 of the Greenbook. Plastic control joints are not allowed. Joints shall have edges with 1/8-inch radii.
3. See curb return (Standard Plan 202) and driveway standards (Standard Plan 204, 205, and 206) for additional control joint requirements.
4. Sidewalk shall be Portland Cement Concrete in accordance with Standard Plan 405.
5. All soils shall be brought to maximum saturation as required in the approved soils report. The soils engineers shall provide certification on the form provided by the City stating the moisture content has been maintained as required prior to and during the placement of concrete. In hillside areas, soil shall be saturated as recommended by the soils engineer and approved by the City Engineer.
6. Sidewalks are required on the side of streets where parking is allowed. Where no parking is allowed, pedestrian circulation shall be provided with a sidewalk or a parkway/greenbelt.
7. Pre-emergent weed killer must be applied prior to construction of sidewalk.
8. See Standard Plan 222 for moisture barrier requirements.
9. Curing compound is required in accordance with the Standard Specifications for Public Works Construction, latest edition.
10. For sidewalks greater than 8-feet wide, additional score marks, aggregate base material, and/or re-bar may be required based upon Geotechnical Engineer recommendation and approval by the City Engineer.
11. 1-1/2-inch deep weakened plane joints on exposed aggregate finishes are allowed.



SIDEWALK DETAIL


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

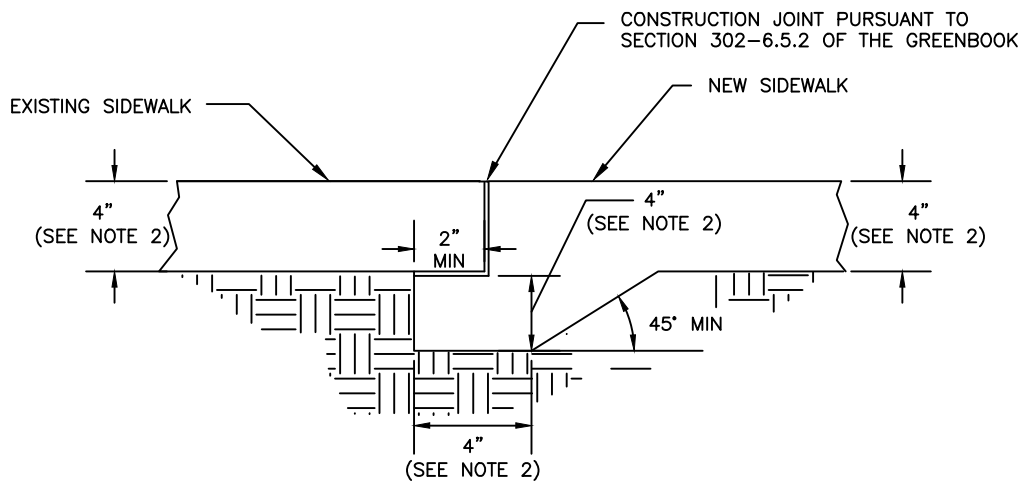
STD. PLAN
201

SHEET 1 OF 2



CITY OF IRVINE PUBLIC WORKS

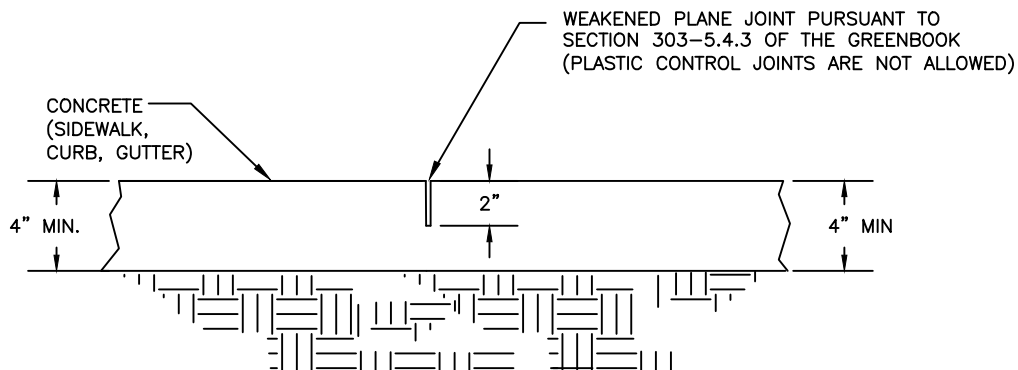
SIDEWALK CONSTRUCTION JOINT DETAIL




NOTES:

1. All applicable notes from sheet 1 shall apply.
2. New sidewalk section shall be keyed under existing sidewalk. Match existing sidewalk thickness for key dimensions.

WEAKENED PLANE JOINT DETAIL



SIDEWALK DETAIL


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

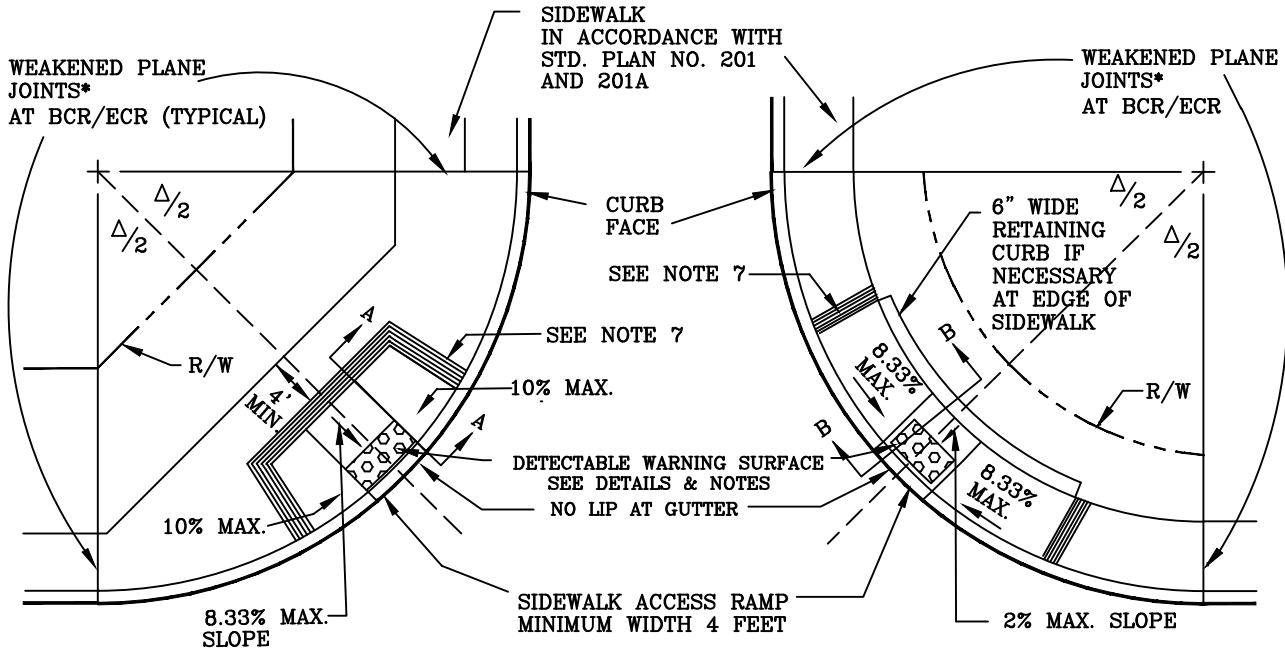
AUGUST 2013
DATE

STD. PLAN
201

SHEET 2 OF 2

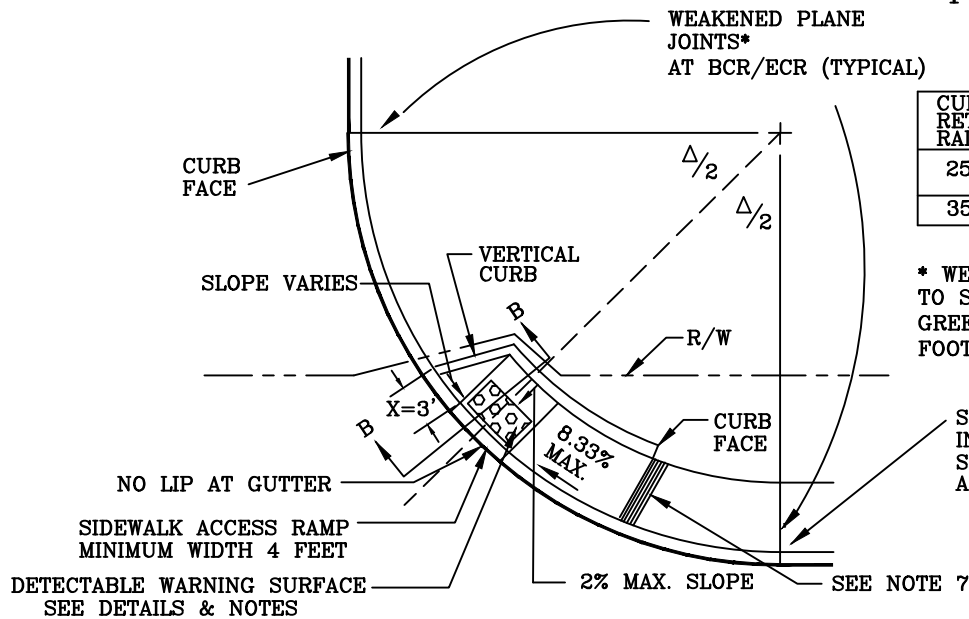


CITY OF IRVINE PUBLIC WORKS



STRAIGHT CORNER CUT-OFF

RADIUS CORNER CUT-OFF
TYPE I-A



RADIUS CORNER CUT-OFF
TYPE I-B

CURB RET. RAD.	APPLICATION
25'	LOCAL STREET INTERSECTING ANOTHER LOCAL STREET
35'	ALL OTHER INTERSECTIONS

* WEAKENED PLANE JOINTS PURSUANT
TO SECTION 303-5.4.3 OF THE
GREENBOOK (EXCEPTION: MAX. 10
FOOT INTERVALS)

CURB RETURN DETAILS

Mark Carroll
MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

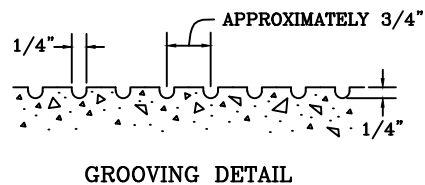
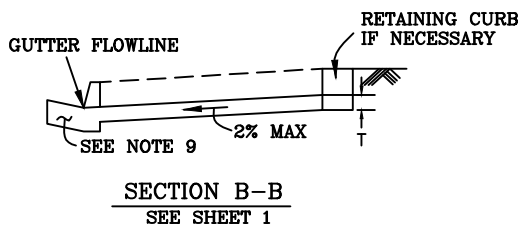
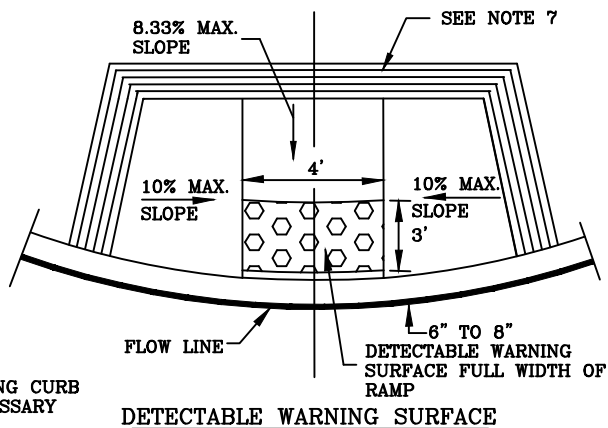
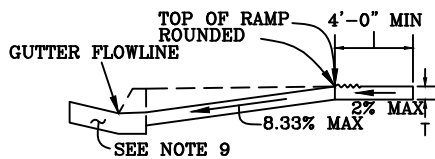
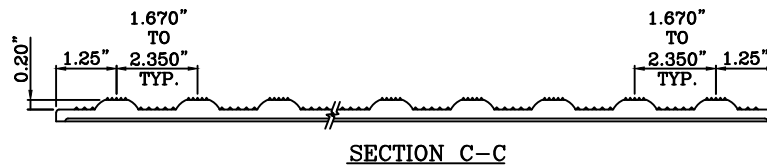
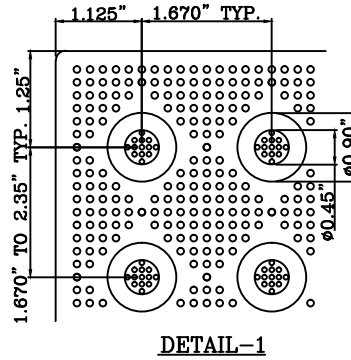
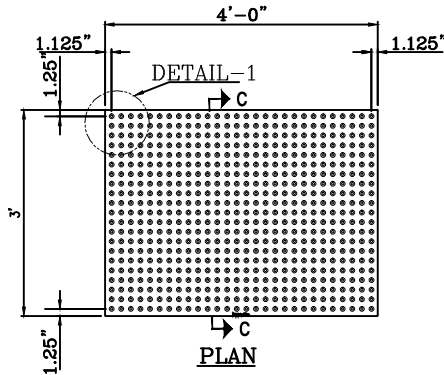
AUGUST 2013
DATE

STD. PLAN
202

SHEET 1 OF 3



CITY OF IRVINE PUBLIC WORKS



CURB RETURN DETAILS

Mark Carroll
MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

STD. PLAN
202

SHEET 2 OF 3

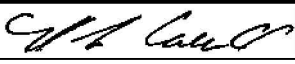


CITY OF IRVINE PUBLIC WORKS

NOTES:

1. STRAIGHT CORNER CUT-OFF CURB RETURN TYPE SHALL BE USED AT ANY ARTERIAL INTERSECTION OR STREET/DRIVEWAY INTERSECTION WITH AN ARTERIAL HIGHWAY OR ANY INTERSECTION THAT IS SIGNALIZED.
2. STRAIGHT OR RADIUS CORNER CUT-OFF MAY BE USED AT LOCAL TO LOCAL STREET INTERSECTIONS.
3. ALTERNATIVE DESIGNS FOR SIDEWALK RETURN RAMPS MAY BE CONSIDERED FOR APPROVAL BY THE CITY ENGINEER.
4. SEE STANDARD NO. 201 AND 201A FOR SIDEWALK DETAIL.
5. APPROVED DETECTABLE WARNING SURFACE IS AS FOLLOWS:
 - A) NEW INSTALLATIONS:
CAST IN PLACE DETECTABLE WARNING SURFACE – MANUFACTURED BY ACCESS TILE (562) 842-9934, www.accesstile.com (Part #: ACC-R3x4-BK),
OR MANUFACTURED BY ADA SOLUTIONS (800) 372-0519, www.adatale.com (Part #: 3648REP "BLACK")
OR MANUFACTURED BY ARMORCAST PRODUCTS COMPANY (818) 982-3600, www.armorcastprod.com (Part #: A6003660RADA-BLACK)
OR APPROVED EQUAL.
 - B) RETROFIT INSTALLATIONS
FLEXIBLE DETECTABLE WARNING SURFACE – MANUFACTURED BY DETECTABLE WARNING SYSTEMS INC., (866) 999-7452, www.detectable-warning.com,
OR APPROVED EQUAL.
 - C) COLOR SHALL BE BLACK OR APPROVED EQUAL.
 - D) DETECTABLE WARNING SURFACE SHALL BE FULL WIDTH OF RAMP AND 3 FOOT IN DEPTH.
 - E) THE DETECTABLE WARNING SURFACE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS AND INSTRUCTIONS.
 - F) THE MANUFACTURER SHALL PROVIDE A MINIMUM 5-YEAR WARRANTY, GUARANTEEING REPLACEMENT WHEN THERE IS A DEFECT IN THE DOME SHAPE, COLOR FASTNESS, SOUND ON CANE ACOUSTIC QUALITY, OR DETERIORATION OF THE DETECTABLE WARNING SURFACE. THE WARRANTY SHALL COMMENCE ON THE DATE OF ACCEPTANCE BY CITY OF IRVINE.
6. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.
7. THE CURB RAMP SHALL BE OUTLINED, AS SHOWN, WITH A 1'-0" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" ON CENTERS. SEE GROOVE DETAIL.
8. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED OR ADJUSTED TO GRADE PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER FACILITIES SHALL NOT BE LOCATED WITHIN THE ACCESS RAMP.
9. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT EXCEED 5 PERCENT GRADE WITHIN 4'-0" OF THE TOP AND BOTTOM OF THE CURB RAMP.
10. THERE SHALL BE NO LIP FROM RAMP TO GUTTER OR STREET.
11. WEAKENED PLANE JOINTS SHALL BE PURSUANT TO SECTION 303-5.4.3 OF THE GREENBOOK. PLASTIC CONTROL JOINTS ARE NOT ALLOWED.

CURB RETURN DETAILS


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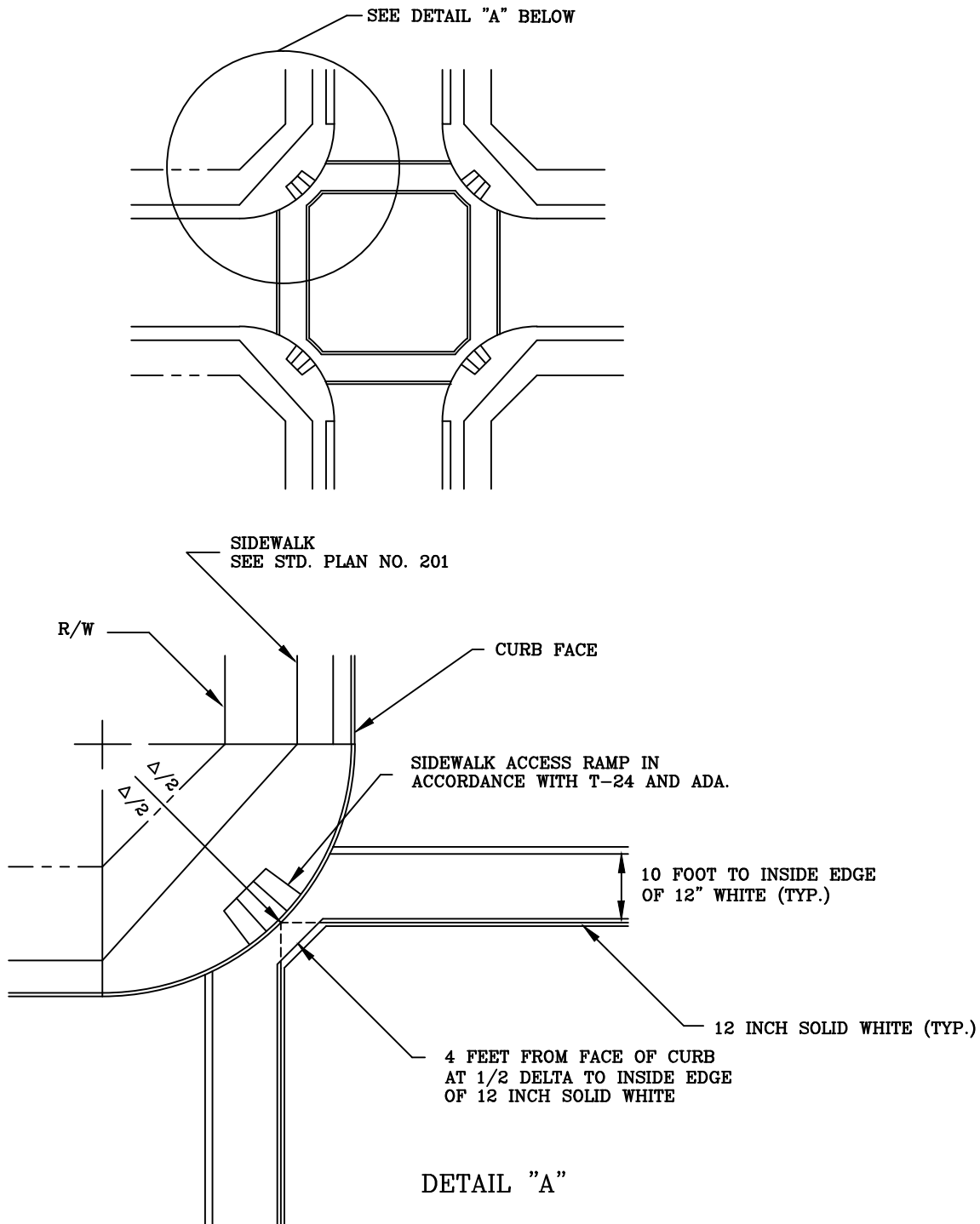
AUGUST 2013
DATE

STD. PLAN
202

SHEET 3 OF 3



CITY OF IRVINE PUBLIC WORKS



CROSSWALK DETAIL


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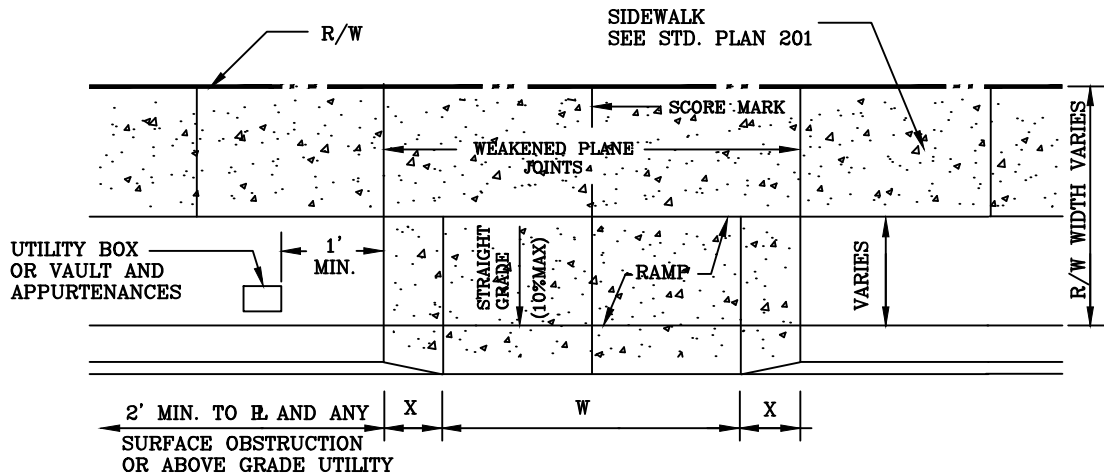
AUGUST 2013
DATE

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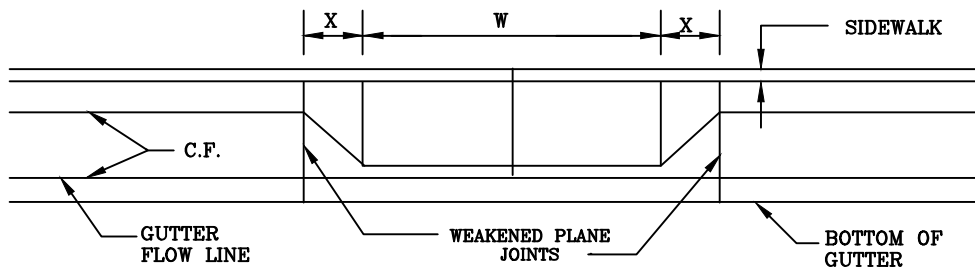
SHEET 1 OF 1



CITY OF IRVINE PUBLIC WORKS



PLAN



ELEVATION

DRIVEWAYS SERVING	MIN. "W"
RESIDENTIAL 1-2 DWELLING >2 DWELLING	12 FEET 22 FEET*
COMM. & IND. ONE-WAY TWO-WAY	15 FEET* 28 FEET

* W=28 FEET MIN. MAYBE REQUIRED BY O.C.F.A. IN VERY HIGH FIRE SEVERITY ZONES.
 DRIVEWAY TYPE I SHALL NOT BE USED AT SIGNALIZED DRIVEWAYS. FOR SIGNALIZED INTERSECTIONS SEE STD. PLAN NO. 205 DRIVEWAY TYPE II-A.

NOTE:

1. NO UTILITY BOXES OR VAULT APPURTENANCES SHALL BE PLACED WITHIN THE DRIVEWAY OR WITHIN ONE FOOT OF THE DRIVEWAY.
2. IF SIDEWALK IS LOCATED OUTSIDE OF THE PUBLIC RIGHT OF WAY A SIDEWALK EASEMENT SHALL BE DEDICATED TO THE CITY OF IRVINE. SEE STD. PLAN 201 AND 201A
3. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

TYPE I-A

DRIVEWAY TYPE I

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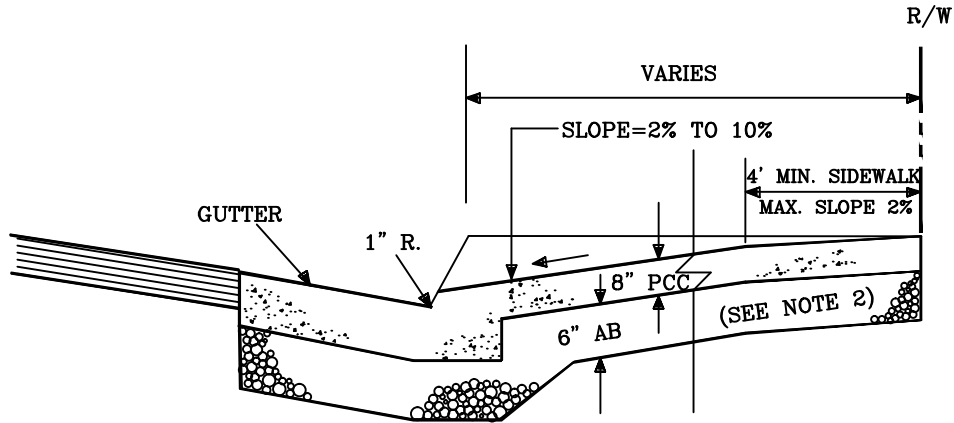
**STD. PLAN
204**

SHEET 1 OF 4



CITY OF IRVINE PUBLIC WORKS

CROSS SECTION



NOTES:

1. UNDER NO CIRCUMSTANCES WILL SAW CUTTING IN THE GUTTER FLOW LINE TO REMOVE THE CURB BE ALLOWED.
2. COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DRIVEWAYS SERVING 5 OR MORE DWELLING UNITS SHALL HAVE 6 INCHES OF AGGREGATE BASE UNDER GUTTER, CURB RAMP AND SIDEWALK FROM TOP OF "X" TO TOP OF "X".
3. GUTTER, RAMP, AND SIDEWALK THICKNESS "T" SHALL BE 6 INCHES (RESIDENTIAL) OR 8 INCHES (COMMERCIAL/INDUSTRIAL) FROM TOP OF "X" TO TOP OF "X".
4. WEAKENED PLANE JOINTS SHALL BE 2 INCHES DEEP WITH 1/8 INCH RADIUS EDGES, PURSUANT TO SECTION 303-5.4.3 OF THE GREENBOOK. PLASTIC CONTROL JOINTS ARE NOT ALLOWED.
5. COMMERCIAL AND INDUSTRIAL LOCATIONS MAY USE OTHER TYPES OF DRIVEWAYS UPON APPROVAL BY CITY ENGINEER.
6. DRIVEWAY SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH STD. PLAN No. 405.
7. DRIVEWAYS WITH "W" LESS THAN 20 FEET SHALL HAVE ONE (1) SCORE MARK AT 1/2 "W". DRIVEWAYS WITH "W" OVER 20 FEET SHALL HAVE SCORE MARKS NOT TO EXCEED 10 FEET ON CENTER.
8. FOR NEW DRIVEWAY CONSTRUCTION ADJACENT TO EXISTING ROADWAYS, 12 INCHES OF ASPHALT FROM THE EDGE OF THE GUTTER ADJACENT TO THE DRIVEWAY SHALL BE REMOVED AND REPLACED.
9. RESIDENTIAL DRIVEWAYS SERVING 4 OR LESS DWELLING UNITS MAY BE PLACED MONOLITHIC WITH CURB AND GUTTER OR MAY BE KEYED OR DOWELED INTO ADJACENT CURB AND GUTTER AND SIDEWALK TO THE SATISFACTION OF THE CITY INSPECTOR. RESIDENTIAL DRIVEWAYS SERVING 5 OR MORE DWELLING UNITS SHALL BE PLACED MONOLITHICALLY.
10. "X" SHALL BE 3- FEET FOR 6-INCH CURBS AND 4- FEET FOR 8-INCH CURBS.
11. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

DRIVEWAY TYPE I


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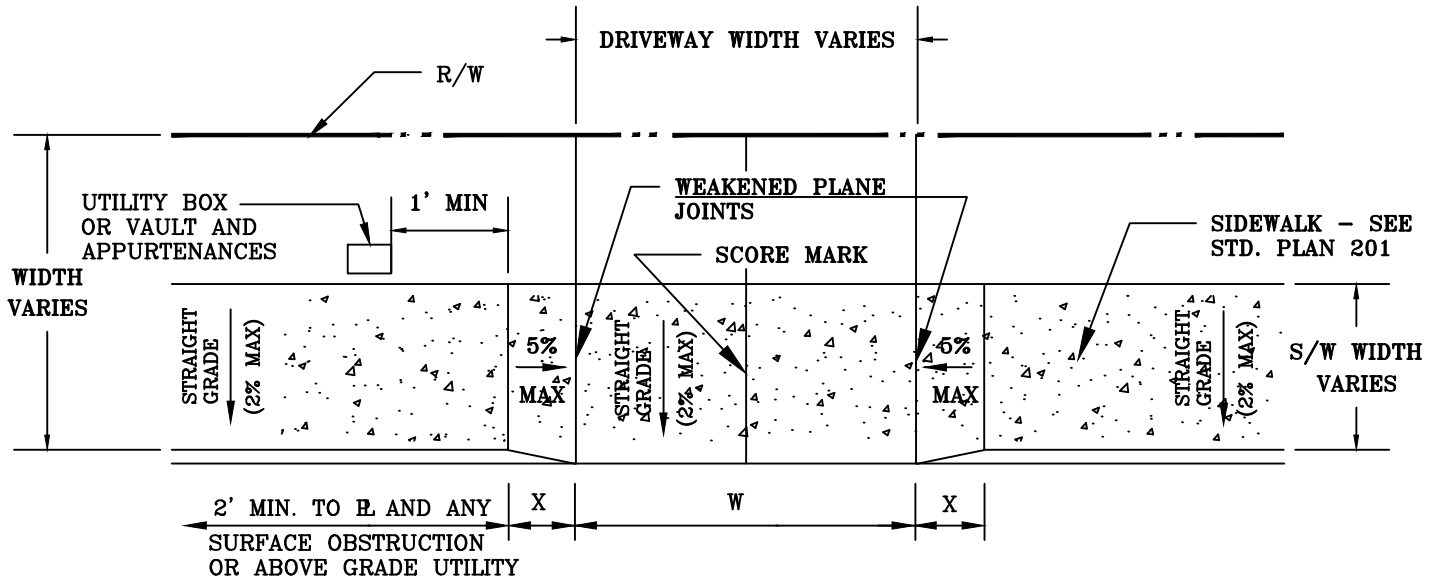
AUGUST 2013
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STD. PLAN
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SHEET 2 OF 4



CITY OF IRVINE PUBLIC WORKS



PLAN

DRIVEWAYS SERVING	MIN. "W"
RESIDENTIAL 1-2 DWELLING >2 DWELLING	12 FEET 22 FEET*
COMM. & IND. ONE-WAY TWO-WAY	15 FEET* 28 FEET

* W=28 FEET MIN. MAYBE REQUIRED BY O.C.F.A. IN VERY HIGH FIRE SEVERITY ZONES.
DRIVEWAY TYPE I SHALL NOT BE USED AT SIGNALIZED DRIVEWAYS. FOR SIGNALIZED INTERSECTIONS SEE STD. PLAN NO. 205 DRIVEWAY TYPE II-A.

TYPE I-B

DRIVEWAY TYPE I

**STD. PLAN
204**

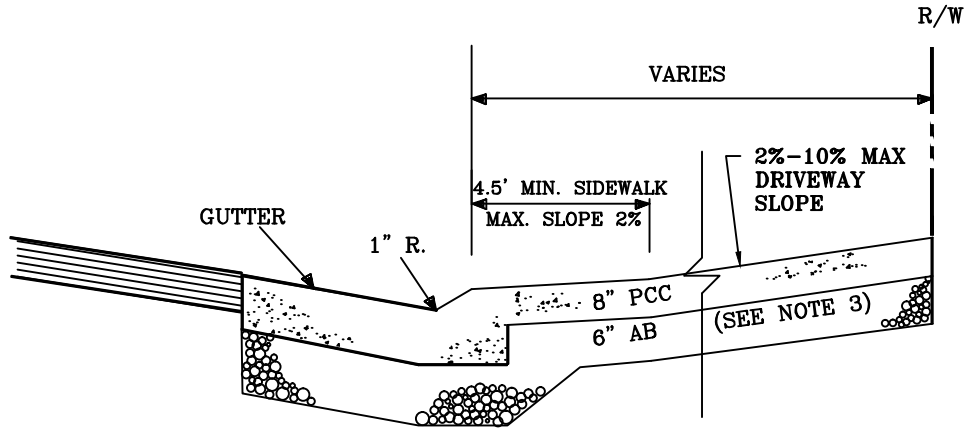

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CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

SHEET 3 OF 4



CITY OF IRVINE PUBLIC WORKS



CROSS SECTION

NOTES:

1. NO UTILITY BOXES OR VAULT APPURTENANCES SHALL BE PLACED WITHIN THE DRIVEWAY OR WITHIN ONE FOOT OF THE DRIVEWAY.
2. UNDER NO CIRCUMSTANCES WILL SAW CUTTING IN THE GUTTER FLOW LINE TO REMOVE THE CURB BE ALLOWED.
3. COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DRIVEWAYS SERVING 5 OR MORE DWELLING UNITS SHALL HAVE 6 INCHES OF AGGREGATE BASE UNDER GUTTER, CURB RAMP AND SIDEWALK FROM TOP OF "X" TO TOP OF "X".
4. GUTTER, RAMP, AND SIDEWALK THICKNESS "T" SHALL BE 6 INCHES (RESIDENTIAL) OR 8 INCHES (COMMERCIAL/INDUSTRIAL) FROM TOP OF "X" TO TOP OF "X".
5. WEAKENED PLANE JOINTS SHALL BE 2 INCHES DEEP WITH 1/8 INCH RADIUS EDGES, PURSUANT TO SECTION 303-5.4.3 OF THE GREENBOOK. PLASTIC CONTROL JOINTS ARE NOT ALLOWED.
6. COMMERCIAL AND INDUSTRIAL LOCATIONS MAY USE OTHER TYPES OF DRIVEWAYS UPON APPROVAL BY CITY ENGINEER.
7. DRIVEWAY SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH STD. PLAN No. 405.
8. DRIVEWAYS WITH "W" LESS THAN 20 FEET SHALL HAVE ONE (1) SCORE MARK AT 1/2 "W". DRIVEWAYS WITH "W" OVER 20 FEET SHALL HAVE SCORE MARKS NOT TO EXCEED 10 FEET ON CENTER.
9. FOR NEW DRIVEWAY CONSTRUCTION ADJACENT TO EXISTING ROADWAYS, 12 INCHES OF ASPHALT FROM THE EDGE OF THE GUTTER ADJACENT TO THE DRIVEWAY SHALL BE REMOVED AND REPLACED.
10. RESIDENTIAL DRIVEWAYS SERVING 4 OR LESS DWELLING UNITS MAY BE PLACED MONOLITHIC WITH CURB AND GUTTER OR MAY BE KEYED OR DOWELED INTO ADJACENT CURB AND GUTTER AND SIDEWALK TO THE SATISFACTION OF THE CITY INSPECTOR. RESIDENTIAL DRIVEWAYS SERVING 5 OR MORE DWELLING UNITS SHALL BE PLACED MONOLITHICALLY.
11. "X" SHALL BE 8.5- FEET FOR 6-INCH CURBS AND 12- FEET FOR 8-INCH CURBS.
12. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

DRIVEWAY TYPE I


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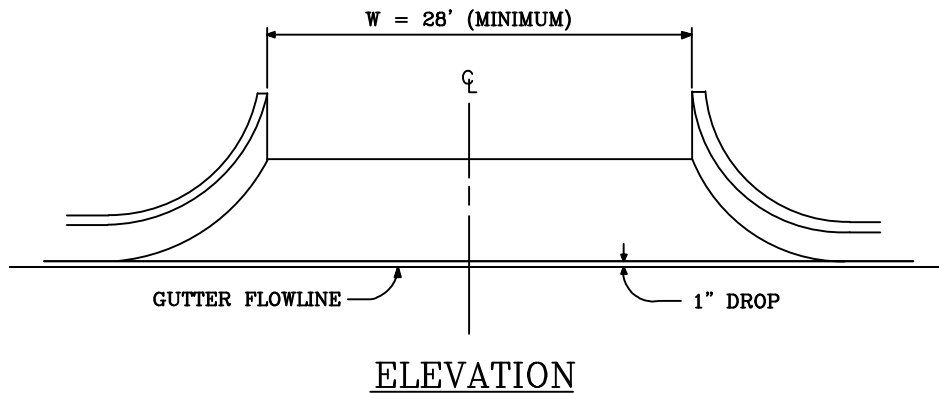
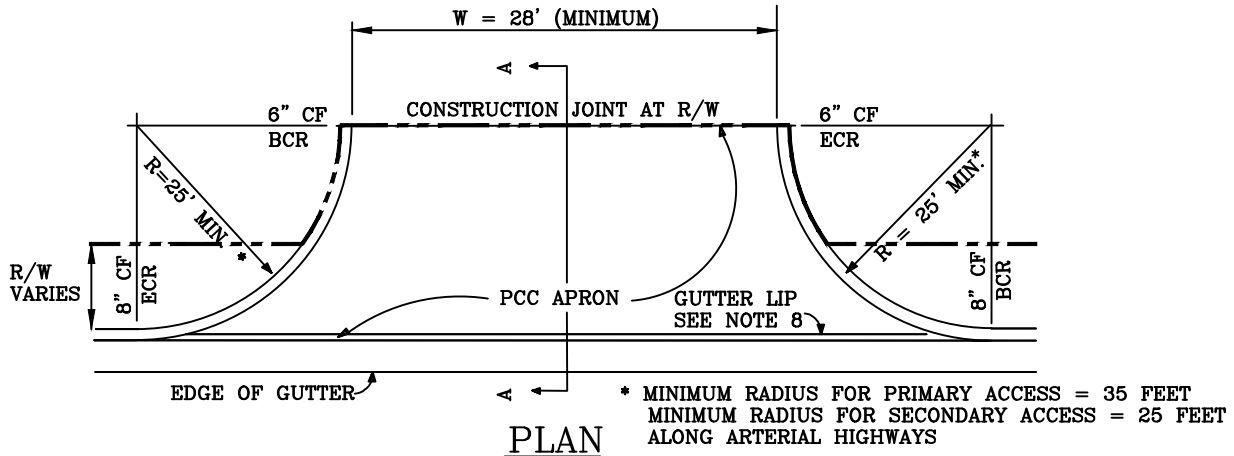
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204

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CITY OF IRVINE PUBLIC WORKS



NOTE:

1. TYPE II-A DRIVEWAYS ARE FOR MULTI-DWELLING RESIDENTIAL UNITS, COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL USE ONLY WITH APPROVAL OF THE CITY ENGINEER.
2. ACCESS RAMPS MEETING ADA AND TITLE 24 SHALL BE LOCATED WITHIN DRIVEWAY RADIUS RETURNS. SEE STANDARD PLAN 202.
3. IF SIDEWALK IS LOCATED OUTSIDE OF THE PUBLIC RIGHT OF WAY A SIDEWALK EASEMENT SHALL BE DEDICATED TO THE CITY OF IRVINE.
4. RADIUS OF CURB RETURNS SHALL BE SYMMETRICAL.
5. NO UTILITY BOXES OR VAULT APPEARANCES SHALL BE PLACED WITHIN THE DRIVEWAY, ACCESS RAMP, OR WITHIN ONE FOOT OF BACK OF DRIVEWAY CURB.
6. ABOVE GRADE OBSTRUCTIONS OR UTILITIES SHALL NOT BE LOCATED WITHIN ACCESS RAMP AND SHALL BE MINIMUM OF TWO FEET FROM THE BACK OF DRIVEWAY CURB.
7. FOR SIGNALIZED INTERSECTIONS, THE GUTTER LIP WILL BE REMOVED FROM THE DRIVEWAY AND CATCH BASINS WILL BE REQUIRED FOR DRAINAGE.
8. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

TYPE II-A

DRIVEWAY TYPE II


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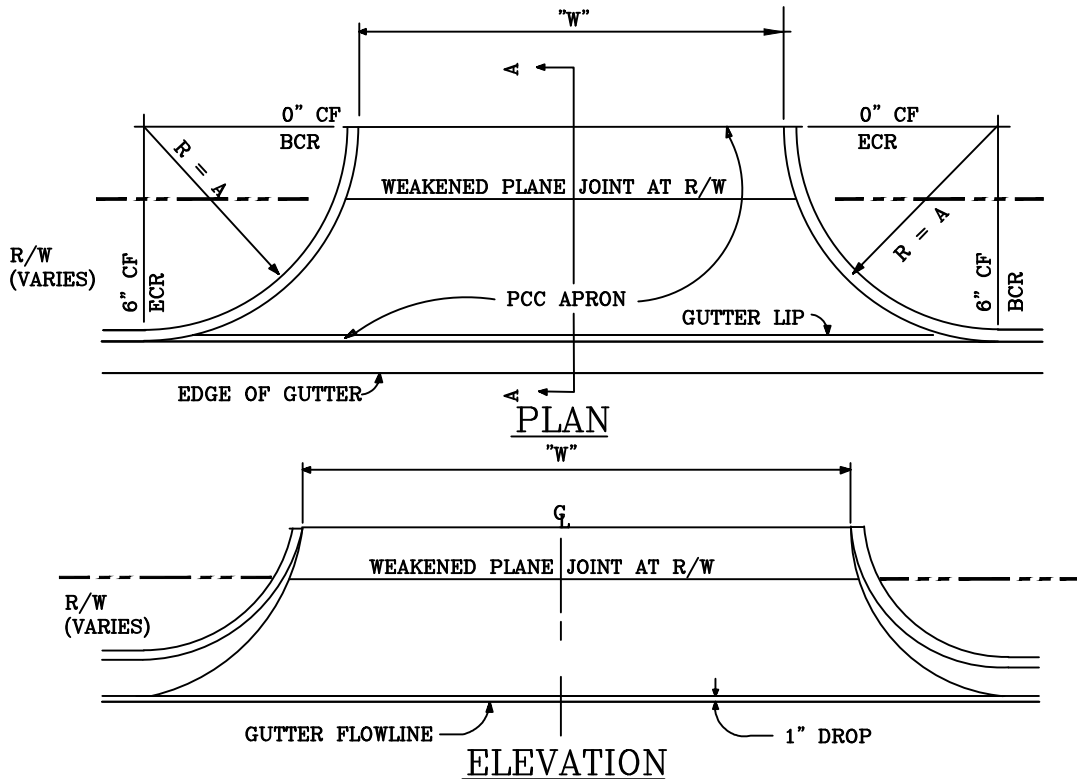
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STD. PLAN
205

SHEET 1 OF 3



CITY OF IRVINE PUBLIC WORKS



RESIDENTIAL DRIVEWAY FROM	MIN. "W"	MIN. "A"
PRIVATE COURT	12 FEET	3 FEET
LOCAL STREET/ PRIVATE WAY	12 FEET	5 FEET

PRIVATE COURT DRIVEWAY FROM	MIN. "W"	MIN. "A"
PRIVATE WAY(4,5)	22 FEET	5 FEET
LOCAL STREET (4,5)	24 FEET	5 FEET

* DRIVEWAY TYPE II-B SHALL BE NOT BE USED AT SIGNALIZED DRIVEWAYS.
FOR SIGNALIZED INTERSECTIONS SEE STD. PLAN NO. 205 DRIVEWAY TYPE II-A.

NOTE:

1. TYPE II-B DRIVEWAY CAN BE USED FOR SINGLE FAMILY RESIDENTIAL USE ONLY WITH APPROVAL OF CITY ENGINEER.
2. AN EASEMENT SHALL BE REQUIRED FOR HANDICAP RAMPS OUTSIDE OF THE RIGHT OF WAY.
3. RADIUS OF CURB RETURN SHALL BE SYMMETRICAL.
4. W = 26 MIN. FOR RESIDENTIAL DRIVEWAY SERVING 9 OR MORE DWELLING UNITS.
5. W = 28 FEET MIN. IF REQUIRED BY ORANGE COUNTY FIRE AUTHORITY (OCFA) IN VERY HIGH FIRE SEVERITY ZONE.
6. IF SIDEWALK IS LOCATED OUTSIDE OF THE PUBLIC RIGHT OF WAY A SIDEWALK EASEMENT SHALL BE DEDICATED TO THE CITY OF IRVINE. SEE STANDARD PLAN 201 AND 201A.
7. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

TYPE II-B

DRIVEWAY TYPE II

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AUGUST 2013
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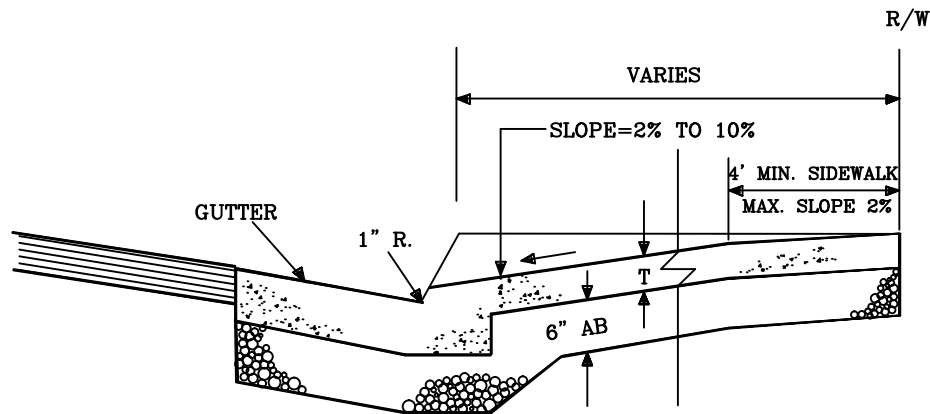
STD. PLAN 205

SHEET 2 OF 3



CITY OF IRVINE PUBLIC WORKS

CROSS SECTION



SECTION A-A

T= 6"(RESIDENTIAL) AND 8"(COMMERCIAL/INDUSTRIAL)

NOTE:

1. UNDER NO CIRCUMSTANCES WILL SAW CUTTING IN THE GUTTER FLOW LINE TO REMOVE THE CURB BE ALLOWED.
2. 6 INCHES OF BASE MATERIAL IS REQUIRED UNDER THE GUTTER AND RAMP TO THE R/W LINE.
3. GUTTER AND RAMP THICKNESS SHALL BE 6 INCHES (RESIDENTIAL) OR 8 INCHES (COMMERCIAL/INDUSTRIAL) TO THE R/W LINE.
4. RAMP AND BASE THICKNESS REQUIREMENTS OUTSIDE OF THE R/W SHALL BE IN 4. ACCORDANCE WITH THE APPROVED SOILS ENGINEER'S RECOMMENDATIONS.
5. WEAKENED PLANE JOINTS SHALL BE 2 INCHES DEEP WITH 1/8 INCH RADIUS EDGES. PURSUANT TO SECTION 303-5.4.3 OF THE GREENBOOK. PLASTIC CONTROL JOINTS ARE NOT ALLOWED.
6. DRIVEWAY APRON SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH STD PLAN No.405.
7. DRIVEWAY SHALL HAVE SCORE MARKS NOT TO EXCEED 10 FEET ON CENTER.
8. FOR NEW DRIVEWAY CONSTRUCTION ON EXISTING ROADWAYS, 12 INCHES OF ASPHALT FROM THE 8 EDGE OF THE GUTTER SHALL BE REMOVED.
9. ACCESS RAMPS SHALL COMPLY WITH TITLE 24 AND ADA REQUIREMENTS.
10. CURB & GUTTER AND RAMP SHALL NOT BE MONOLITHIC.
11. FULL HEIGHT OF CURB SHALL CONTINUE ON-SITE FROM THE ENDS OF THE DRIVEWAY CURB RETURNS.
12. ANY RETROFIT/RECONSTRUCTION OF DRIVEWAYS SHALL MATCH EXISTING NEIGHBORHOOD DRIVEWAY TYPE.

DRIVEWAY TYPE II


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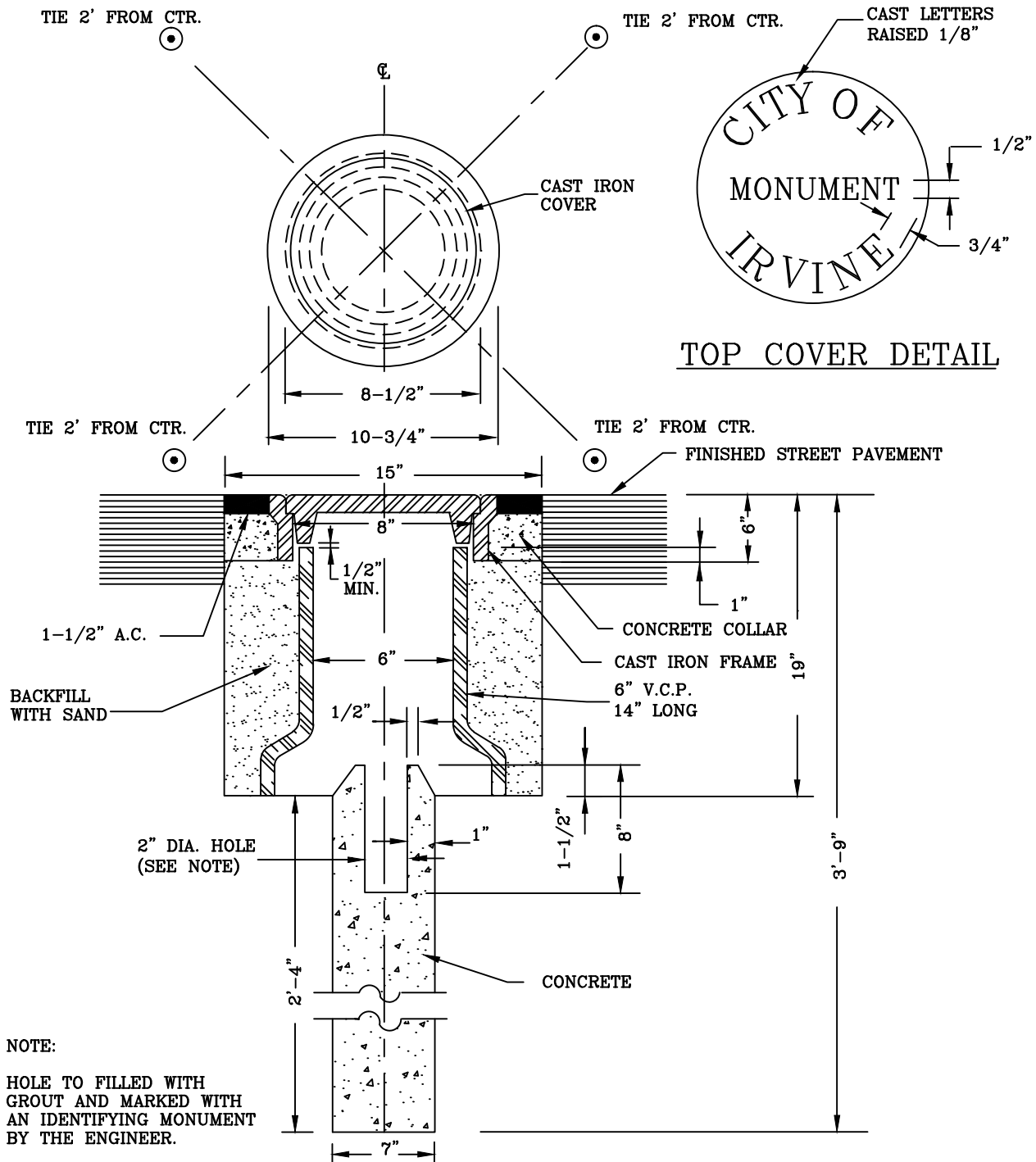
AUGUST 2013
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205

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CITY OF IRVINE PUBLIC WORKS



SURVEY MONUMENT

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AUGUST 2013
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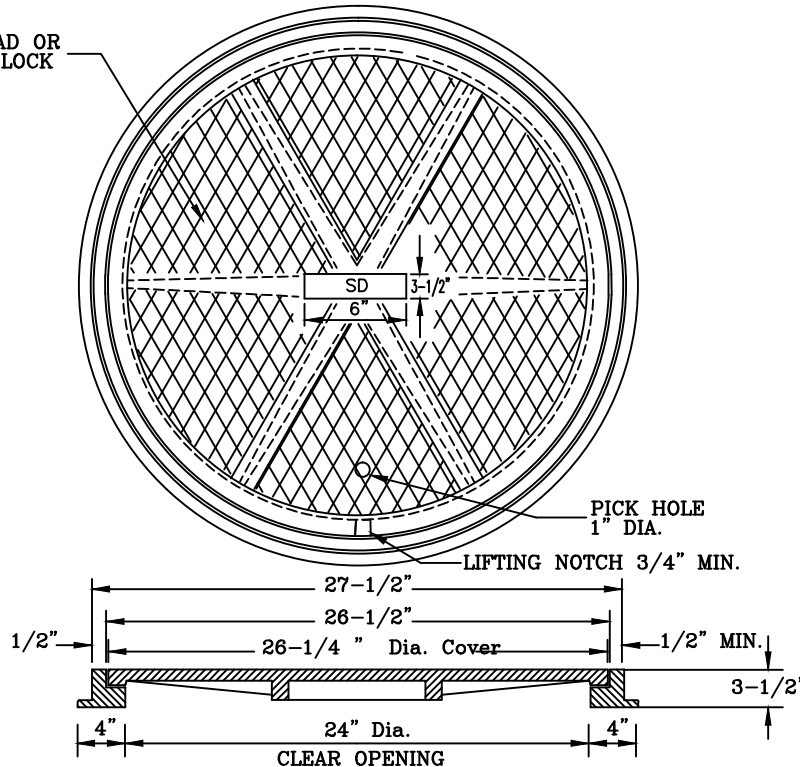
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214

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CITY OF IRVINE PUBLIC WORKS

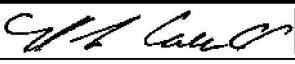
2" x 1"
DIAMOND MAT. RADIAL TREAD OR
SQUARE / RECTANGULAR BLOCK
1/8" DEEP



NOTES:

1. THE CAST IRON USED SHALL CONFORM TO ASTM A-48 CLASS 35B AND THE MANHOLE COVER OR RING SHALL NOT BE PAINTED. PROOF-LOAD TEST FOR METHOD "B" IS 40,000 LBS.
2. COVERS SHALL BE CAST WITH THE LETTER "SD" (2" MIN. HEIGHT) FOR STORM DRAINS.
3. FOUNDRY IDENTIFYING MARK/NAME, SHALL BE CAST ON THE TOP OF THE COVER. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
4. FOUNDRY IDENTIFYING MARK/NAME, HEAT AND DATE SHALL BE CAST ON THE BOTTOM OF THE COVER AND ON THE INSIDE OF THE FRAME. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
5. WEIGHT OF FRAME SHALL BE 160 LBS.
WEIGHT OF COVER SHALL BE 155 LBS.
ACTUAL WEIGHTS SHALL BE WITHIN A RANGE OF 95% TO 110%.
6. USE ONE OF THE FOLLOWING APPROVED PRODUCTS:
ALHAMBRA FOUNDRY A-1254-4,
NEENAH FOUNDRY - NFI-1593
OR APPROVED EQUAL.
7. REQUEST FOR APPROVED EQUAL WILL REQUIRE THE FOLLOWING:
 - (a) A CERTIFICATE OF COMPLIANCE STATING THAT THE FURNISHED FRAME(S) AND COVER(S) COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATIONS. SUCH CERTIFICATES SHALL CLEARLY IDENTIFY THE FRAME AND COVER AND BE SIGNED BY THE MANUFACTURER.
 - (b) MANHOLE FRAME(S) AND COVER(S) PRODUCED OUTSIDE THE UNITED STATES SHALL BE FURNISHED WITH A CERTIFICATE OF COMPLIANCE ALONG WITH COMPLETE COPIES OF ALL TESTS AND TEST RESULTS IN COMPLIANCE WITH APWA TEST REQUIREMENTS. THE CERTIFICATE SHALL BE ISSUED BY A PRIVATE TESTING FIRM LOCATED WITHIN CALIFORNIA AND WILL BE AT NO ADDITIONAL EXPENSE TO THE CITY OF IRVINE. THE TESTING FIRM SHALL BE EXPERIENCED AND KNOWLEDGEABLE OF THE TESTING OF MANHOLE FRAMES AND COVERS.

24" TRAFFIC MANHOLE FRAME & COVER


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

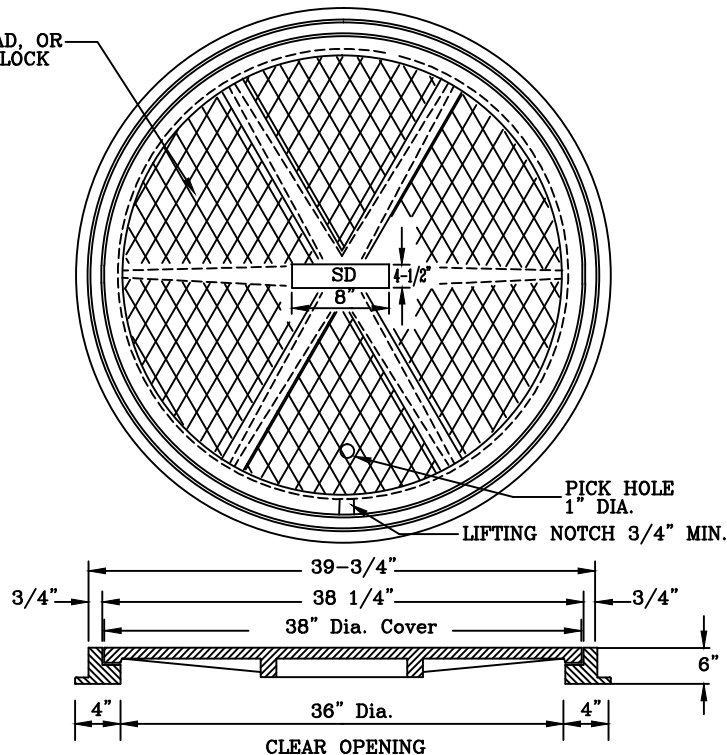
STD. PLAN
311

SHEET 1 OF 3



CITY OF IRVINE PUBLIC WORKS

2" x 1"
DIAMOND MAT, RADIAL TREAD, OR
SQUARE / RECTANGULAR BLOCK
1/8" DEEP



NOTES:

1. THE CAST IRON USED SHALL CONFORM TO ASTM A-48 CLASS 35B. PROOF-LOAD FOR TEST METHOD "B" IS 41,000LBS.
2. COVERS SHALL BE CAST WITH THE LETTER "SD" (3" MIN. HEIGHT) FOR STORM DRAINS.
3. FOUNDRY IDENTIFYING ID#/NAME, SHALL BE CAST ON THE TOP OF THE COVER. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
4. FOUNDRY IDENTIFYING ID#/NAME, HEAT AND DATE SHALL BE CAST ON THE BOTTOM OF THE COVER AND ON THE INSIDE OF THE FRAME. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
5. WEIGHT OF FRAME SHALL BE 300 LBS.
WEIGHT OF COVER SHALL BE 335 LB..
ACTUAL WEIGHTS SHALL BE WITHIN A RANGE OF 95% TO 110%.
6. USE ONE OF THE FOLLOW APPROVED PRODUCTS:
ALHAMBRA FOUNDRY A-1251-6,
NEENAH FOUNDRY NFI-1739-B,
OR APPROVED EQUAL.
7. REQUEST FOR APPROVED EQUAL WILL REQUIRE THE FOLLOWING:
 - (a) A CERTIFICATE OF COMPLIANCE STATING THAT THE FURNISHED FRAME(S) AND COVER(S) COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATIONS. SUCH CERTIFICATES SHALL CLEARLY IDENTIFY THE FRAME AND COVER AND BE SIGNED BY THE MANUFACTURER.
 - (b) MANHOLE FRAME(S) AND COVER(S) PRODUCED OUTSIDE THE UNITED STATES SHALL BE FURNISHED WITH A CERTIFICATE OF COMPLIANCE ALONG WITH COMPLETE COPIES OF ALL TESTS AND TEST RESULTS IN COMPLIANCE WITH APWA TEST REQUIREMENTS. THE CERTIFICATE SHALL BE ISSUED BY A PRIVATE TESTING FIRM LOCATED WITHIN CALIFORNIA AND WILL BE AT NO ADDITIONAL EXPENSE TO THE CITY OF IRVINE. THE TESTING FIRM SHALL BE EXPERIENCED AND KNOWLEDGEABLE OF THE TESTING OF MANHOLE FRAMES AND COVERS.

36" TRAFFIC MANHOLE FRAME AND COVER


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

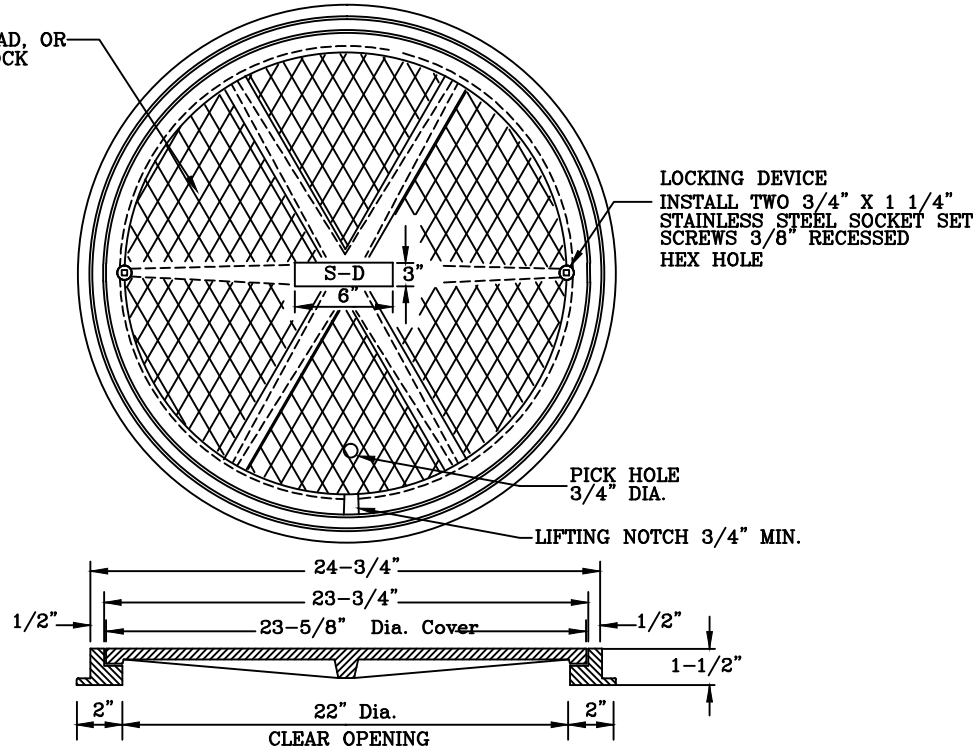
STD. PLAN
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SHEET 2 OF 3



CITY OF IRVINE PUBLIC WORKS

2" x 1"
DIAMOND MAT, RADIAL TREAD, OR
SQUARE/RECTANGULAR BLOCK
1/8" DEEP



NOTES:

1. THE CAST IRON USED SHALL CONFORM TO ASTM A-48 CLASS 35B. PROOF-LOAD FOR TEST METHOD "B" IS 28,600 LBS.
2. COVERS SHALL BE CAST WITH THE LETTER "S-D" (1" MIN. HEIGHT) FOR STORM DRAINS.
3. FOUNDRY IDENTIFYING ID#/NAME, SHALL BE CAST ON THE TOP OF THE COVER. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
4. FOUNDRY IDENTIFYING ID#/NAME, HEAT AND DATE SHALL BE CAST ON THE BOTTOM OF THE COVER AND ON THE INSIDE OF THE FRAME. IMPORTED COVERS AND FRAMES SHALL HAVE THE COUNTRY OF ORIGIN MARKING ON THE TOP OF COVER AND ON THE FRAME IN COMPLIANCE WITH FEDERAL REGULATIONS.
5. WEIGHT OF FRAME SHALL BE 30 LBS.
WEIGHT OF COVER SHALL BE 100 LBS.
ACTUAL WEIGHTS SHALL BE WITHIN A RANGE OF 95% TO 110%.
6. USE ONE OF THE FOLLOWING APPROVED PRODUCTS:
ALHAMBRA FOUNDRY A-1530-B (GALVANIZED),
NEENAH FOUNDRY NFI-1579 (GALVANIZED),
OR APPROVED EQUAL WITH LOCKING DEVICE.
7. REQUEST FOR APPROVED EQUAL WILL REQUIRE THE FOLLOWING:
 - (a) A CERTIFICATE OF COMPLIANCE STATING THAT THE FURNISHED FRAME(S) AND COVER(S) COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATIONS. SUCH CERTIFICATES SHALL CLEARLY IDENTIFY THE FRAME AND COVER AND BE SIGNED BY THE MANUFACTURER.
 - (b) MANHOLE FRAME(S) AND COVER(S) PRODUCED OUTSIDE THE UNITED STATES SHALL BE FURNISHED WITH A CERTIFICATE OF COMPLIANCE ALONG WITH COMPLETE COPIES OF ALL TESTS AND TEST RESULTS IN COMPLIANCE WITH APWA TEST REQUIREMENTS. THE CERTIFICATE SHALL BE ISSUED BY A PRIVATE TESTING FIRM LOCATED WITHIN CALIFORNIA AND WILL BE AT NO ADDITIONAL EXPENSE TO THE CITY OF IRVINE. THE TESTING FIRM SHALL BE EXPERIENCED AND KNOWLEDGEABLE OF THE TESTING OF MANHOLE FRAMES AND COVERS.

22" PARKWAY MANHOLE FRAME AND COVER

**STD. PLAN
311**

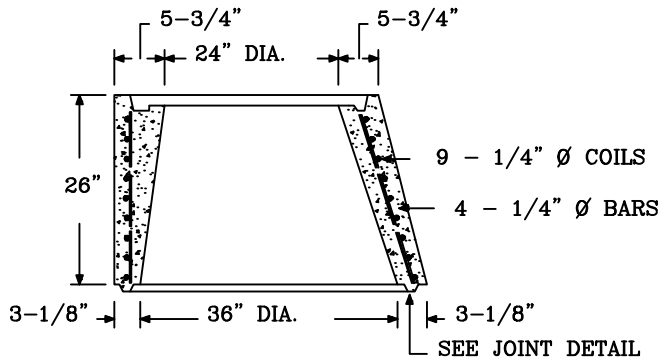
Mark Carroll
MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
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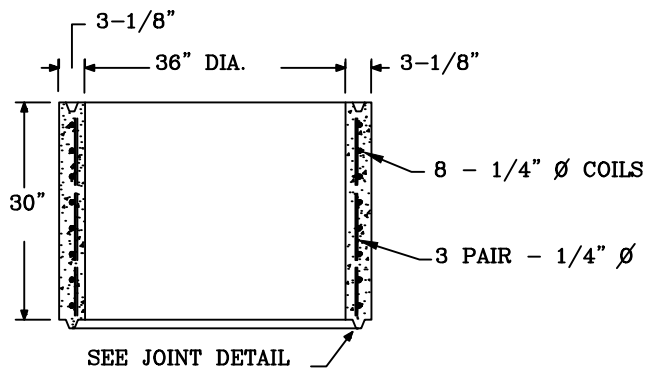
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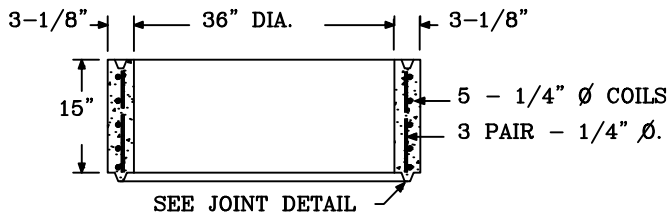
CITY OF IRVINE PUBLIC WORKS



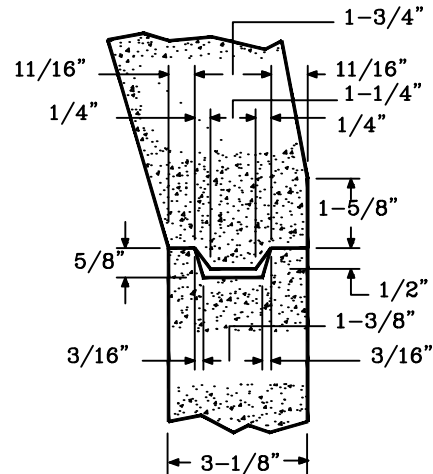
36" TO 24" ECCENTRIC CONE



36" X 30" MANHOLE PIPE



36" X 15" MANHOLE PIPE



JOINT DETAIL

NOTES:

1. SEE STD. PLAN No. 311 FOR FRAME & COVER.
2. SEE STD. PLAN No's. 306-308 & 306A-308A FOR MANHOLE INSTALLATION DETAILS INCLUDING STEPS.
3. THE MANHOLE PIPES & GRADE RINGS SHALL BE ARRANGED IN ORDER OF LONGER TO SHORTER LENGTHS FROM BOTTOM TO TOP.
4. SEE STD. PLAN No. 314 FOR GRADE RING DETAILS.

36" REINFORCED CONCRETE MANHOLE

**STD. PLAN
312**

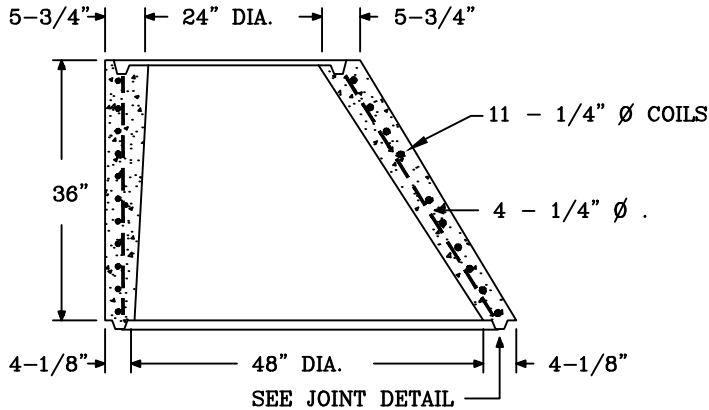
Mark Carroll
MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

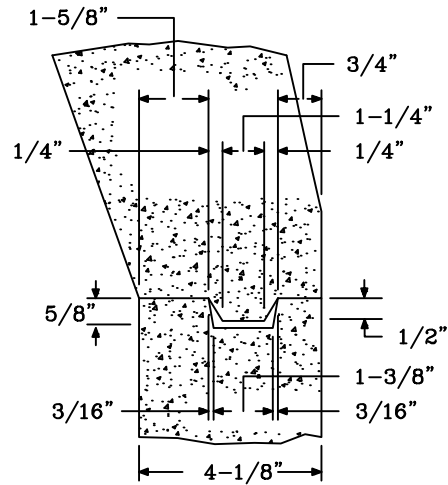
SHEET 1 OF 1



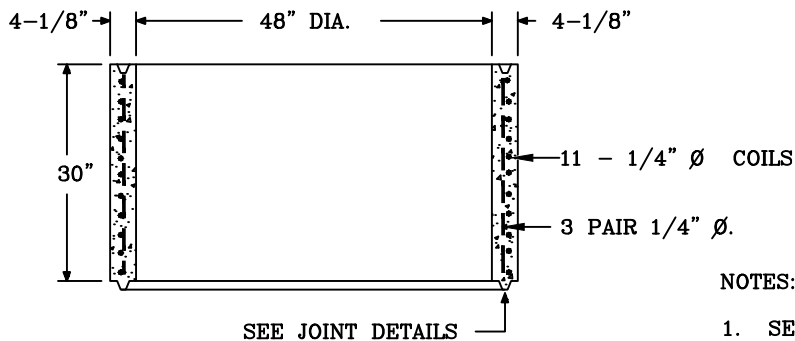
CITY OF IRVINE PUBLIC WORKS



48" TO 24" ECCENTRIC CONE



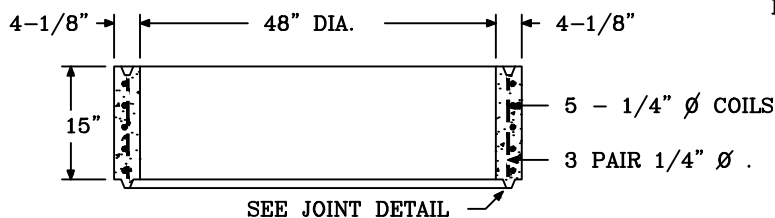
JOINT DETAIL



48" X 30" MANHOLE PIPE

NOTES:

1. SEE STD. PLAN No. 311 FOR FRAME & COVER.
2. SEE STD. PLAN No's. 306-308 & 306A-308A FOR MANHOLE INSTALLATION DETAILS INCLUDING STEPS.
3. THE MANHOLE PIPES & GRADE RINGS SHALL BE ARRANGED IN ORDER OF LONGER TO SHORTER LENGTHS FROM BOTTOM TO TOP.
4. SEE STD. PLAN No. 314 FOR GRADE RING DETAILS.



48" X 15" MANHOLE PIPE

48" REINFORCED CONCRETE MANHOLE

**STD. PLAN
313**

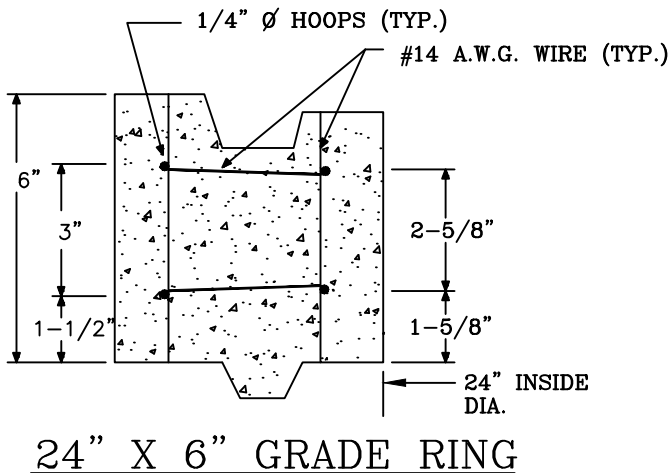
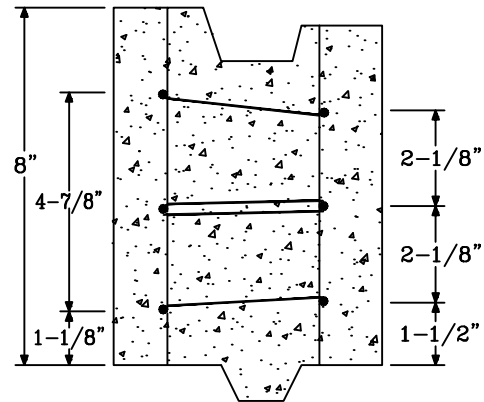
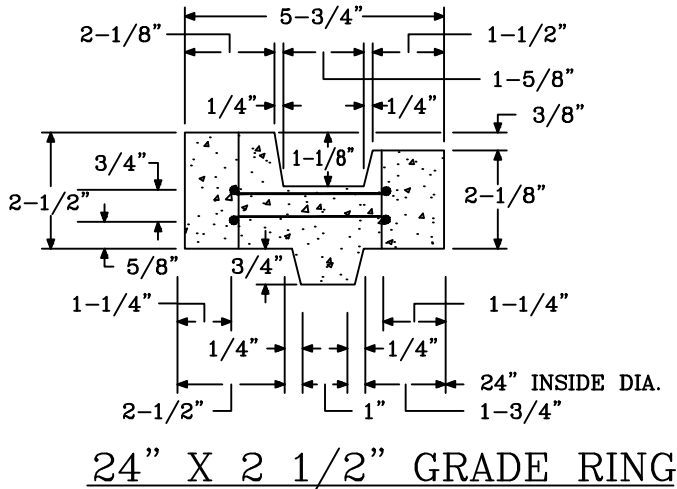
Mark Carroll
MARK CARROLL, R.C.E. 31515
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AUGUST 2013
DATE

SHEET 1 OF 1



CITY OF IRVINE PUBLIC WORKS



NOTES:

1. SEE STD. PLAN No. 311 FOR FRAME & COVER.
2. SEE STD. PLAN No's. 306, 307 & 308 FOR MANHOLE INSTALLATION DETAILS INCLUDING STEPS.
3. THE MANHOLE PIPES & GRADE RINGS SHALL BE ARRANGED IN ORDER OF LONGER TO SHORTER LENGTHS FROM BOTTOM TO TOP.
4. SEE STD. PLAN No. 312 FOR 36 INCH DIA. MANHOLE & STD. PLAN NO. 313 FOR 48 INCH DIA. MANHOLE.

24" REINFORCED CONCRETE GRADE RINGS


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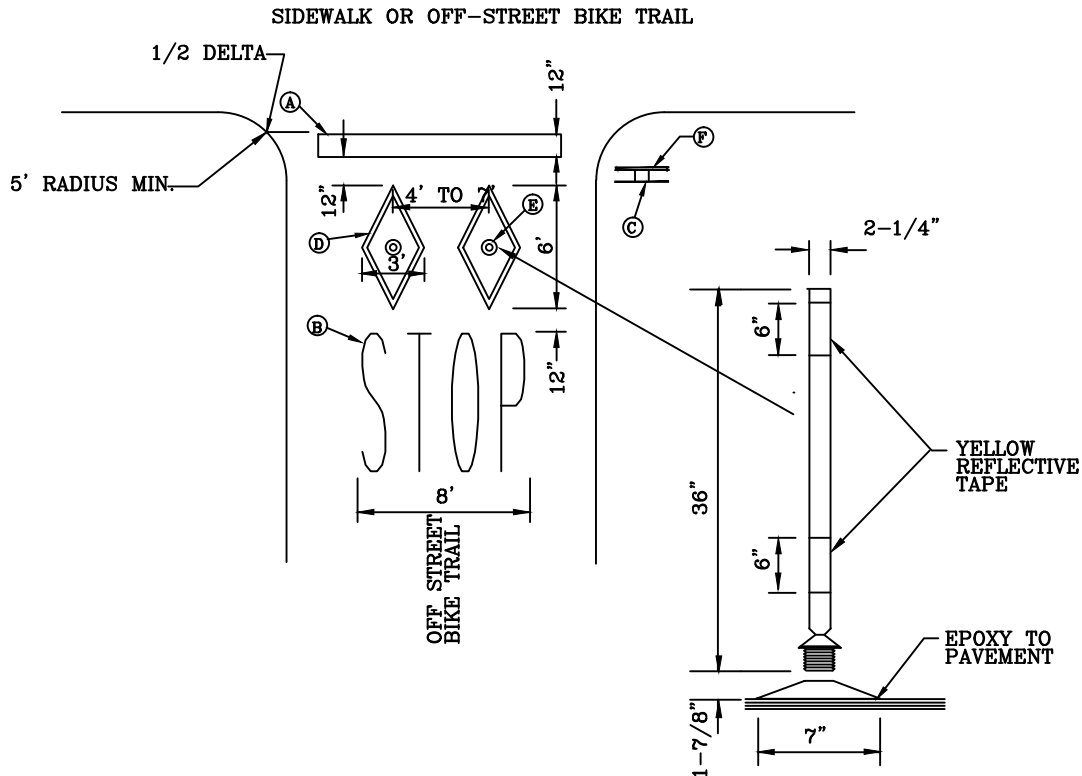
AUGUST 2013
DATE

STD. PLAN 314

SHEET 1 OF 1



CITY OF IRVINE PUBLIC WORKS

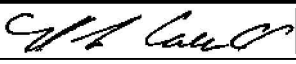


- (A) PAINTED LIMIT LINE (WHITE).
- (B) PAINTED STOP LEGEND IN ACCORDANCE WITH CALTRANS STANDARD AND CITY OF IRVINE STENCILS (WHITE).
- (C) 30 INCH STOP (R-1) SIGN MOUNTED ON 4 INCH x 4 INCH x 12 FOOT REDWOOD POST. POST TO BE PAINTED IRVINE BROWN
- (D) 4 INCH WIDE PAINTED DIAMOND (WHITE).
- (E) FLEXIBLE PLASTIC POST AS MANUFACTURED BY TRAFFLEX:
36 INCH HIGH ORANGE POST WITH YELLOW REFLECTIVE TAPE(#SG 02378) AND BLACK BASE(#SG 05322).
ADHESIVE:
BAUER TWO PART EPOXY OR EQUIVALENT (A)2336A9, (B)2337A9.
- (F) CALTRANS R44A SIGN.

NOTE:

1. THIS STANDARD SHALL BE USED ONLY WHEN THE OFF-STREET BIKE TRAIL DOES NOT INTERSECT WITH THE STREET OR DRIVEWAY CURB RETURN.
2. ALL PAINT SHALL BE REFLECTORIZED TRAFFIC PAINT.

OFF-STREET BIKE TRAIL INTERSECTION


MARK CARROLL, R.C.E. 31515
CITY OF IRVINE - CITY ENGINEER

AUGUST 2013
DATE

STD. PLAN 410

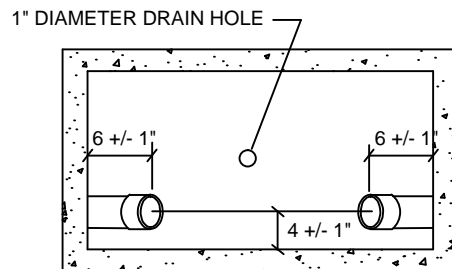
SHEET 1 OF 1



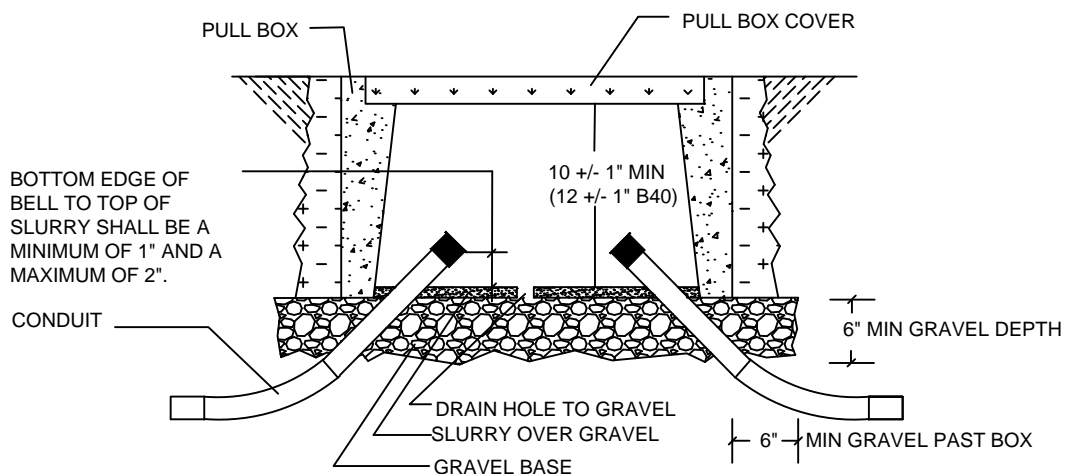
CITY OF IRVINE PUBLIC WORKS

MODIFIES CALTRANS STANDARD PLAN ES-8B

TOP VIEW



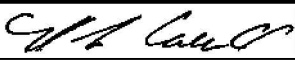
SIDE VIEW



1. INTERCONNECT PULL BOXES ARE TO BE NO. 6, EXCEPT FOR THE C40 ELECTRICAL BOX ADJACENT TO THE COMMUNICATION CABINET, PLACED NO GREATER THAN 400 FOOT INTERVALS, AND HAVE 45 DEGREE CONDUIT ELBOWS.
2. NO. 6 PULL BOXES SHALL HAVE FIBRELYTE COVERS. C40 PULL BOXES SHALL HAVE "LIGHTWEIGHT" POLYMER CONCRETE LID.
3. ALL PULL BOXES ARE TO BE MARKED "TRAFFIC SIGNAL" EXCEPT THE EDISON PULL BOX.
4. THERE SHALL BE A MINIMUM OF 10 INCHES (± 1) OF VOID FROM TOP OF SLURRY TO THE BOTTOM OF THE COVER, IN A SINGLE STACK PULL BOX. B40 BOXES SHALL HAVE AN ADDITIONAL 2" SUMP.
5. GRAVEL BED SHALL BE 6" DEEP, BELOW PULL BOX AND EXTENDING 6" PAST THE OUTER EDGES IN ALL DIRECTIONS.
6. PULL BOX FLOOR SHALL HAVE CEMENT GROUT (MINIMAL SLOPE TO CENTER) COVERING BASE MATERIAL.
7. DRAIN HOLE SHALL ALLOW WATER TO DRAIN THROUGH GROUT TO GRAVEL BASE MATERIAL.
8. PULL BOXES SHALL BE INSPECTED FOR PROPER CONSTRUCTION PRIOR TO WIRE INSTALLATION.

TRAFFIC SIGNAL PULL BOXES

TS-2


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CITY OF IRVINE - CITY ENGINEER

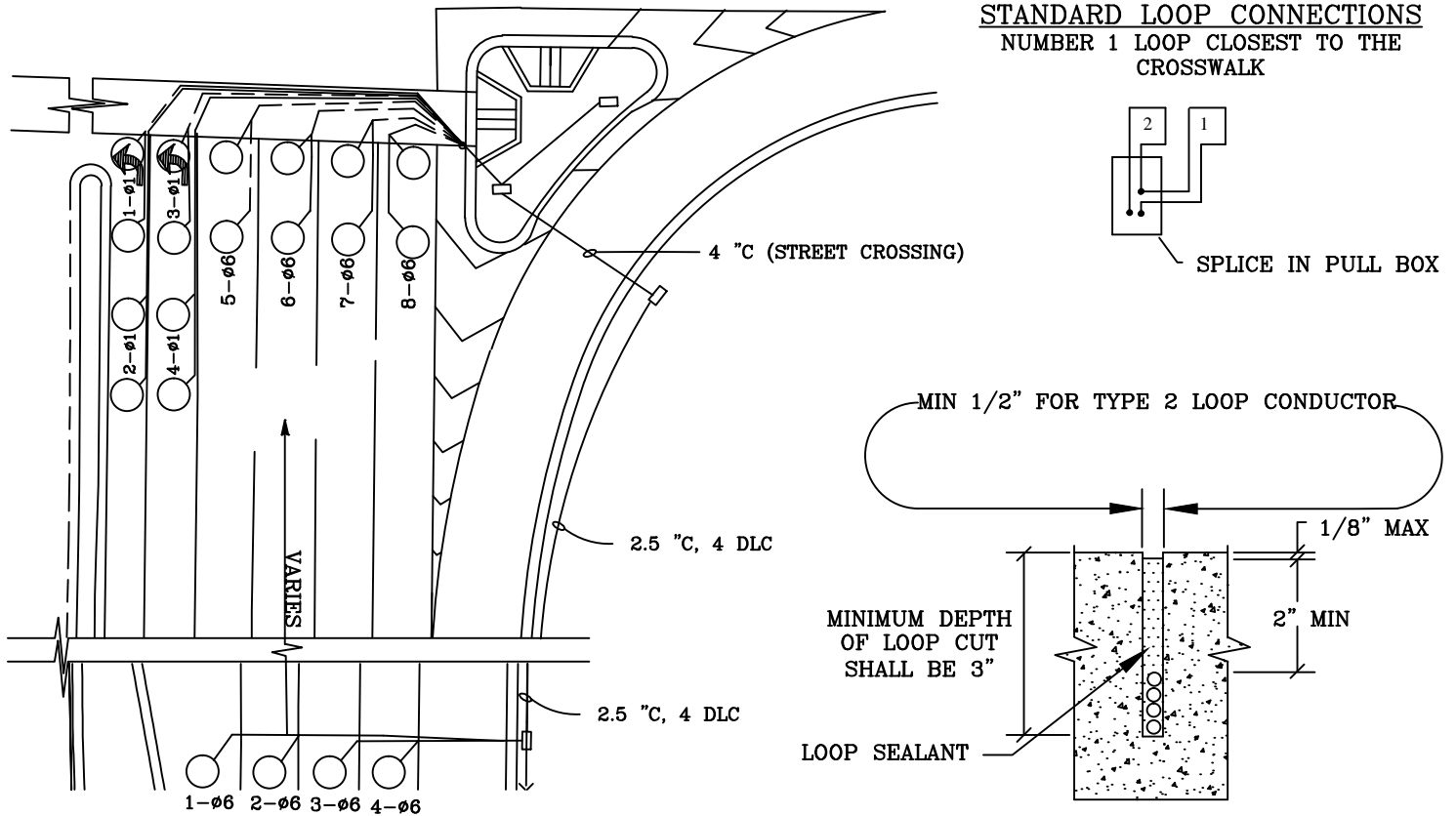
AUGUST 2013
DATE

SHEET 1 OF 1



CITY OF IRVINE PUBLIC WORKS

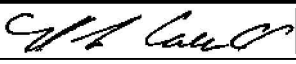
(MODIFIES CALTRANS STANDARD PLAN ES-5A)



NOTES :

1. TRAFFIC SIGNAL LOOPS SHALL BE TYPE E.
2. LOOP CONDUCTORS SHALL BE TYPE 2.
3. LOOPS SHALL HAVE A MINIMUM OF 3-TURNS FOR PRESENCE AND 4-TURNS FOR ADVANCE.
4. LOOPS SHALL BE SEALED WITH HOT MELT ADHESIVE.
5. LOOPS SHALL BE SPliced IN SERIES, AND BY LANE.
6. PRESENCE LOOPS SHALL BE INSTALLED ONE FOOT BEHIND THE LIMIT LINE.
7. ADVANCE LOOPS SHALL BE INSTALLED PER SET BACK REQUIREMENTS (104.3.V.10).
8. LOOP DESIGNATIONS SHALL REMAIN CONSISTENT WITH THIS PLAN, REGARDLESS OF LANE COUNT.
9. LOOPS SHALL BE LOCATED 1 FOOT FROM THE CROSSWALK OR LIMIT LINE.

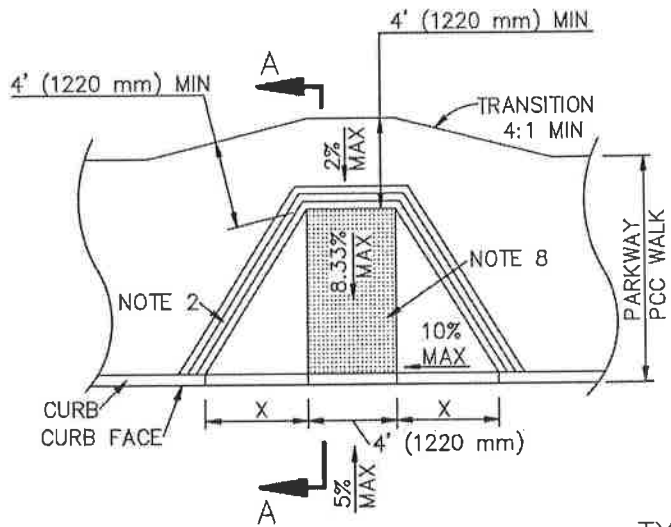
TRAFFIC SIGNAL LOOP DETECTION DETAILS


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CITY OF IRVINE - CITY ENGINEER

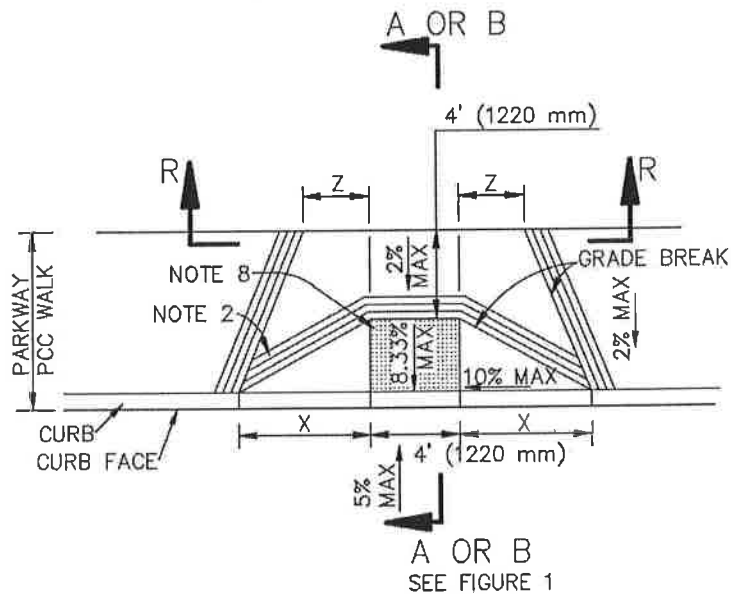
AUGUST 2013
DATE

TS-8A

SHEET 1 OF 1



TYPE 1



TYPE 2

CASE A

PARTS OF THIS STANDARD PLAN SHOW INSTALLATION FOR TYPICAL RETROFIT CONDITIONS, AND ARE NOT FULLY COMPLIANT WITH CALIFORNIA BUILDING CODE REQUIREMENTS FOR NEW DEVELOPMENT.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1992
REV. 1996, 2000, 2005, 2009,
2013

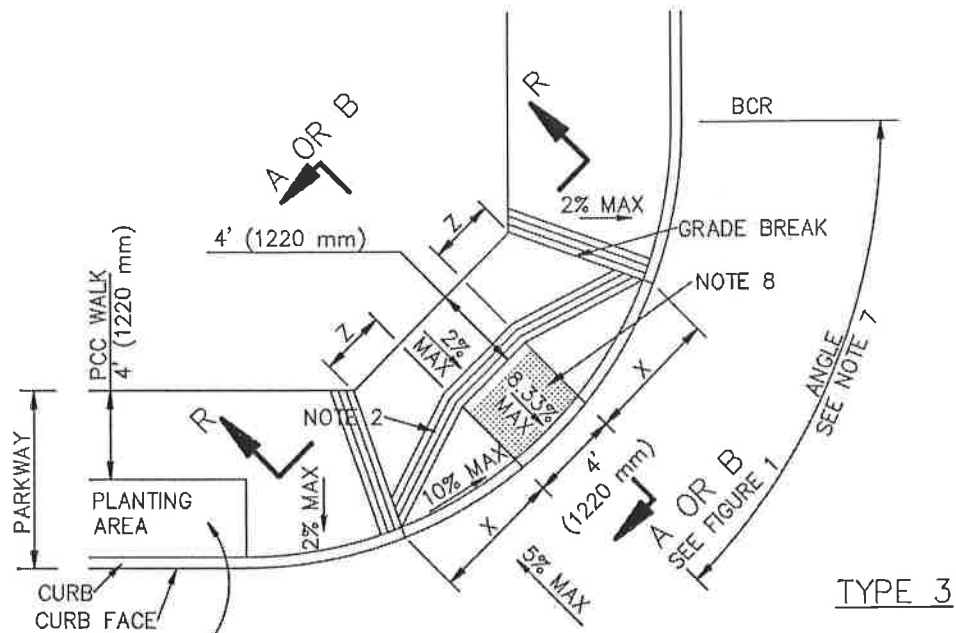
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

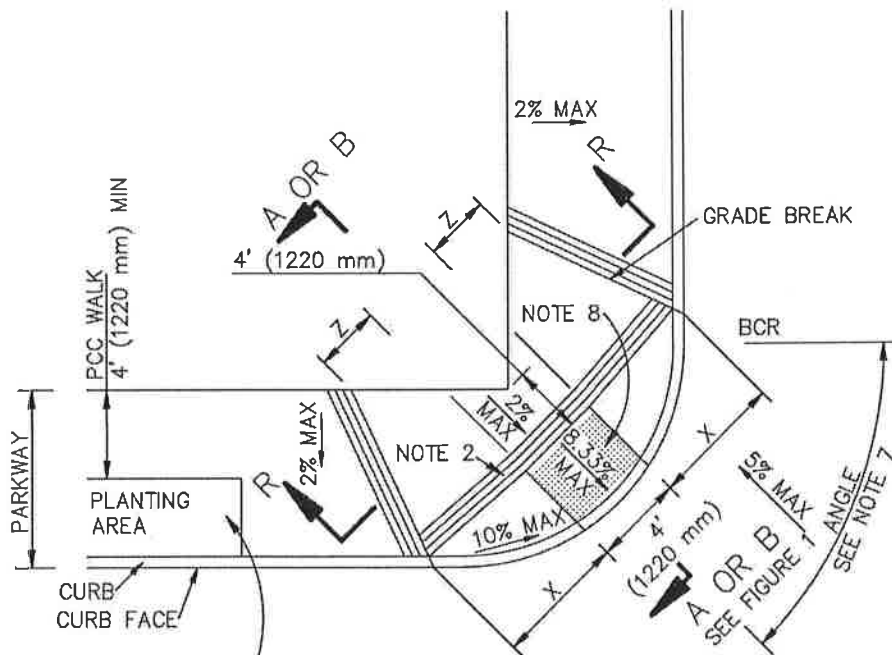
111-5

SHEET 1 OF 10



WHERE PLANTING AREA IS
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6

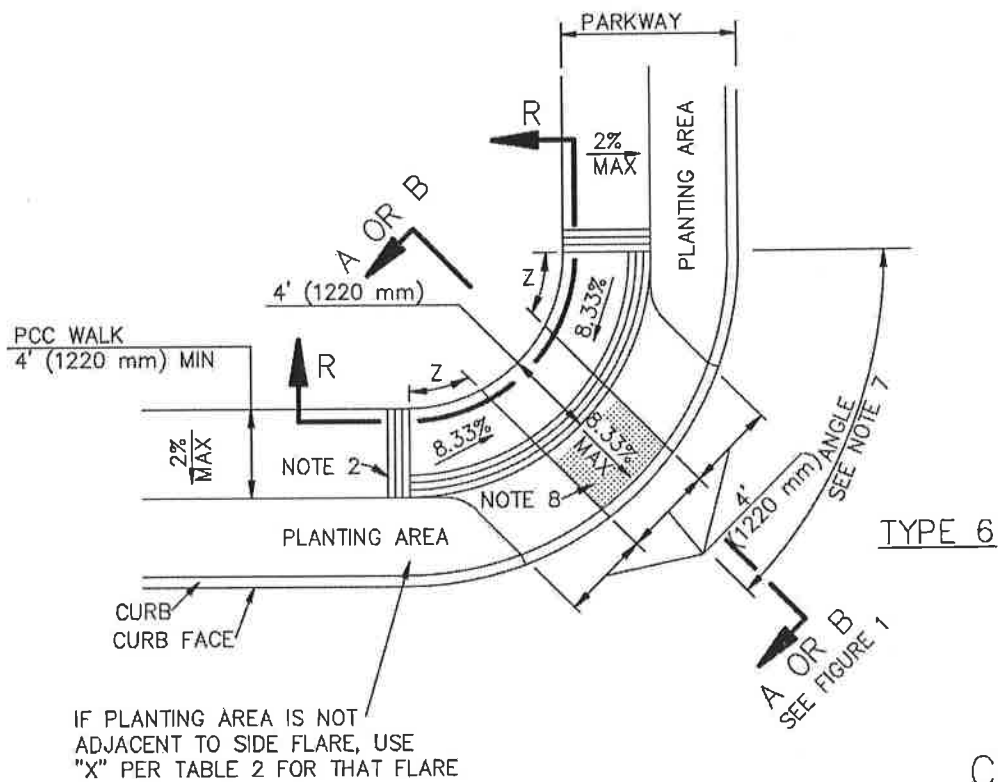
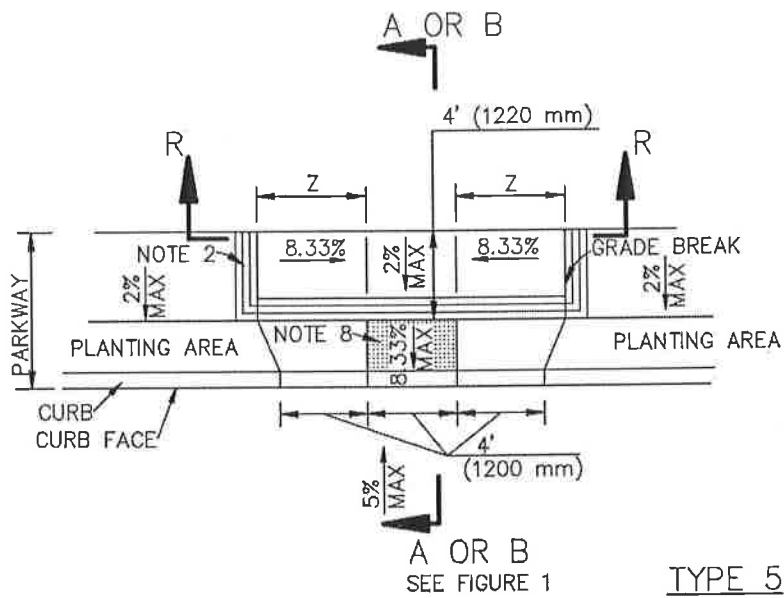
TYPE 3



WHERE PLANTING AREA IS
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6

TYPE 4

CASE A



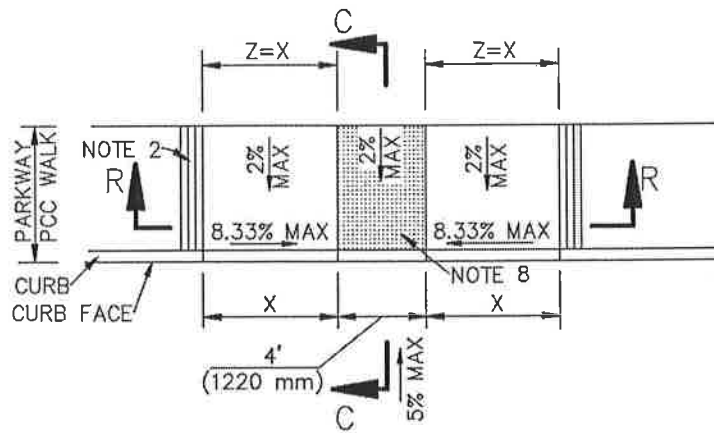
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB RAMP

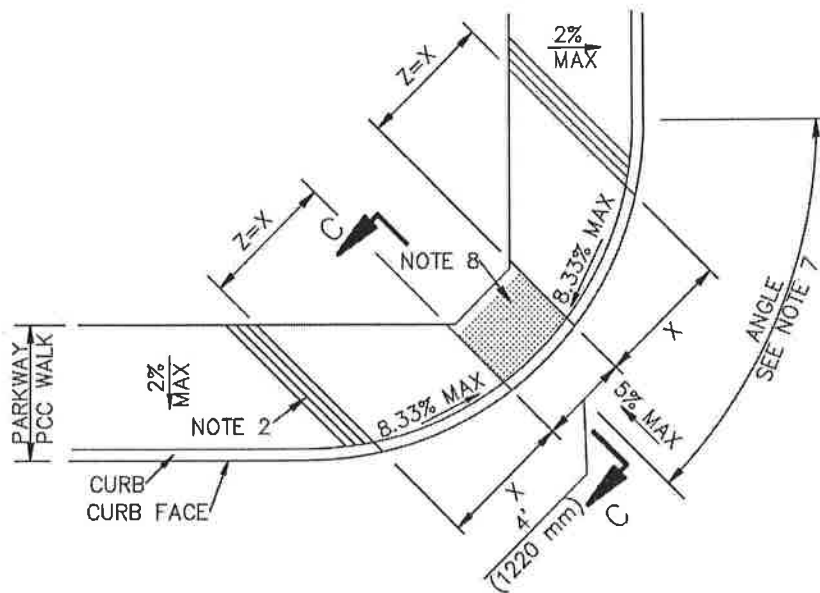
STANDARD PLAN

111-5

SHEET 3 OF 10



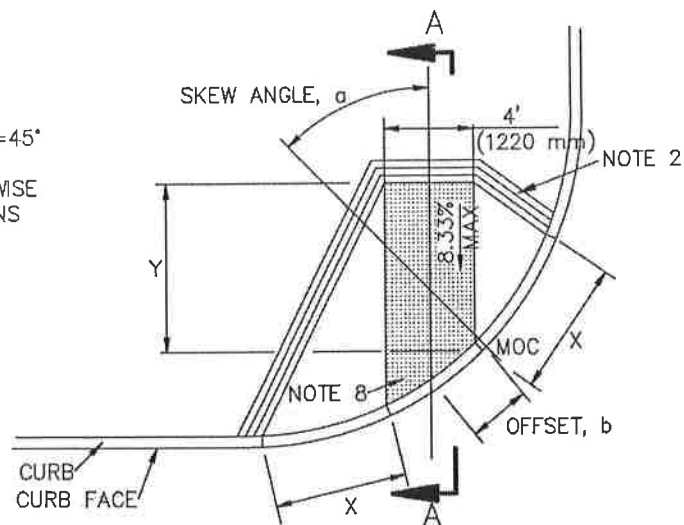
TYPE 1



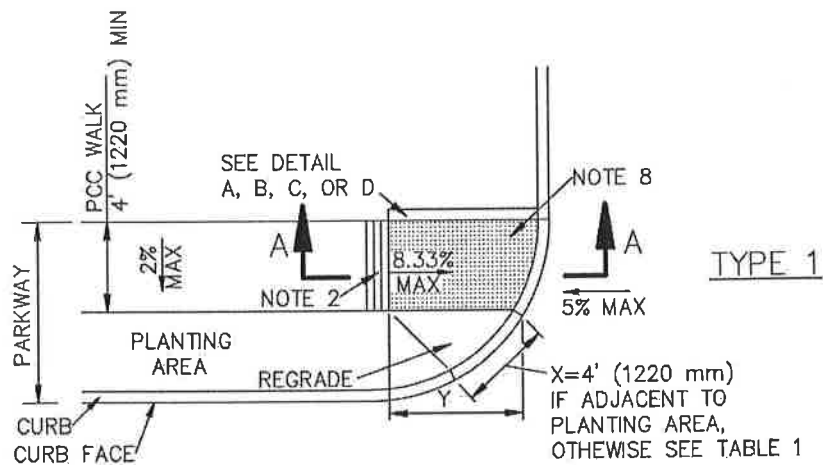
TYPE 2

CASE B

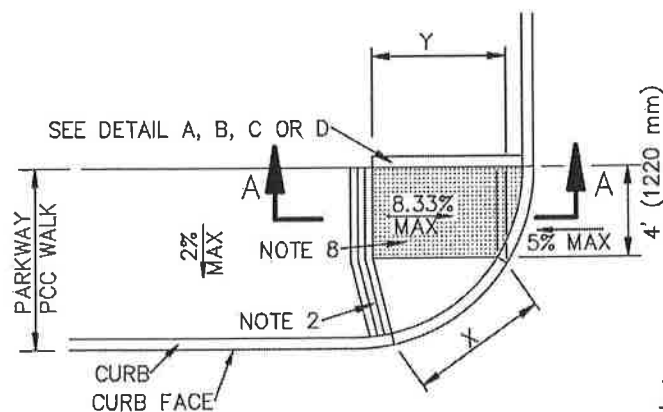
SKEW ANGLE $\alpha=45^\circ$
 OFFSET $b=0$
 UNLESS OTHERWISE
 NOTED ON PLANS



CASE C



TYPE 1



TYPE 2

CASE D

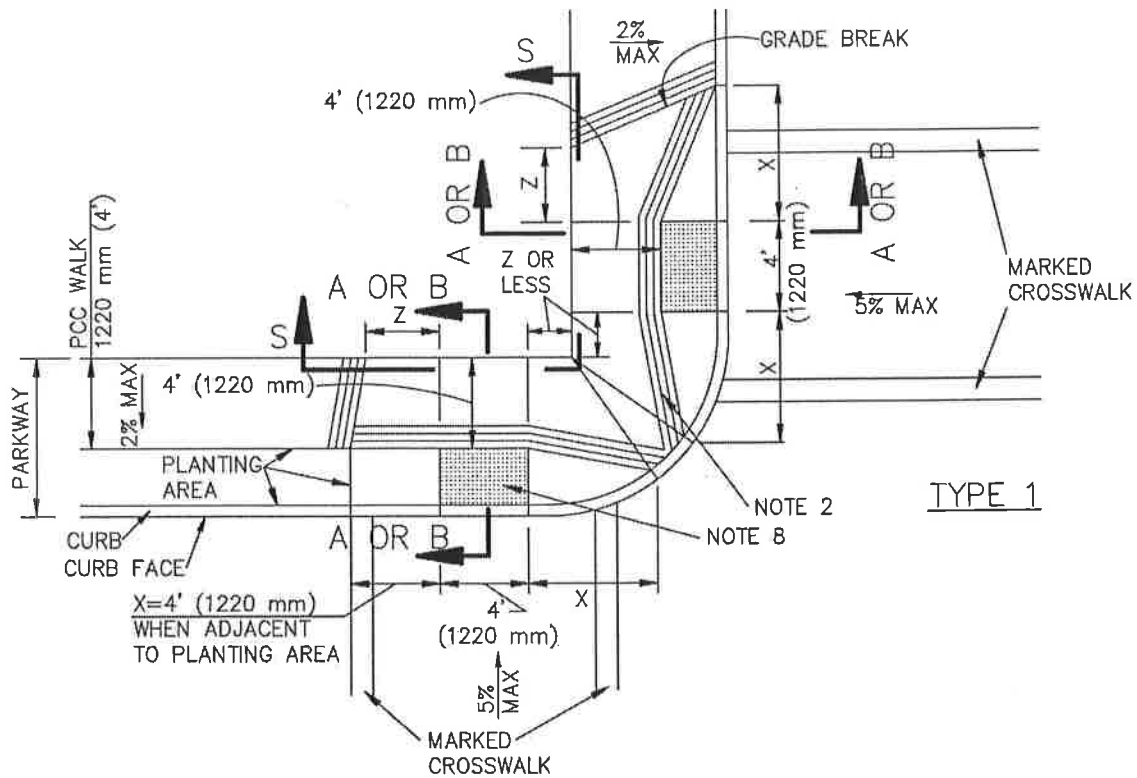
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB RAMP

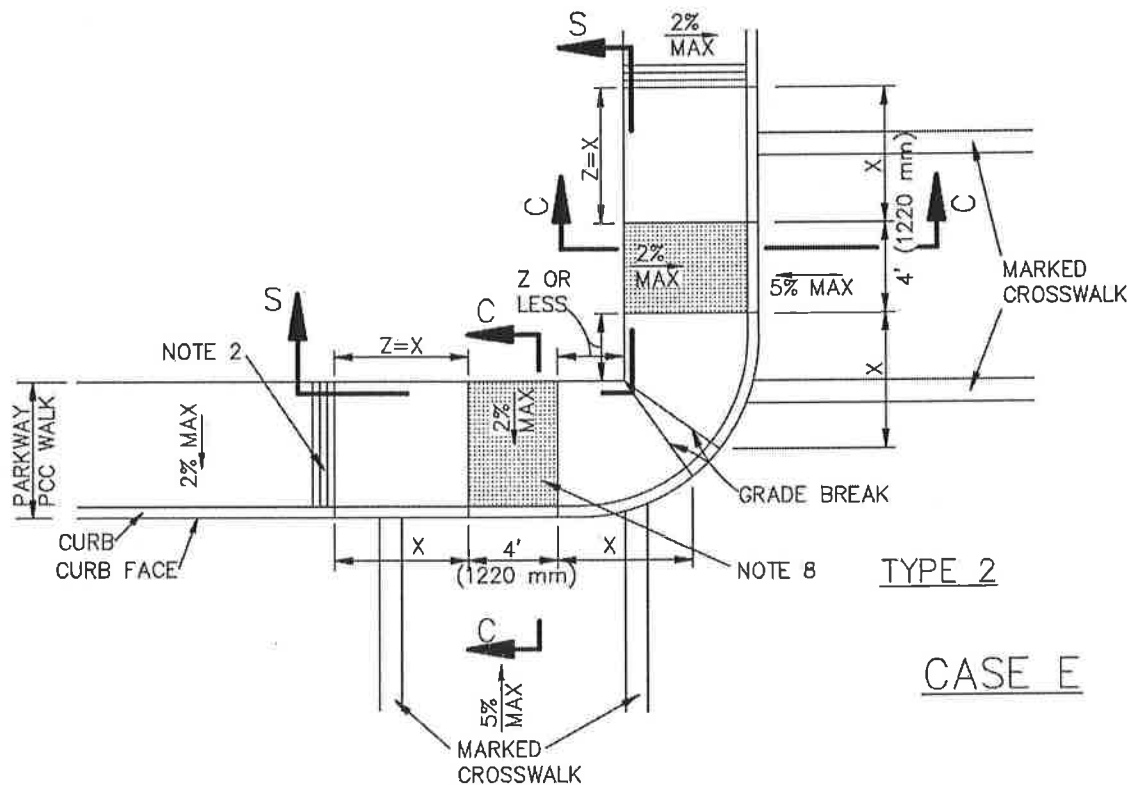
STANDARD PLAN

111-5

SHEET 5 OF 10

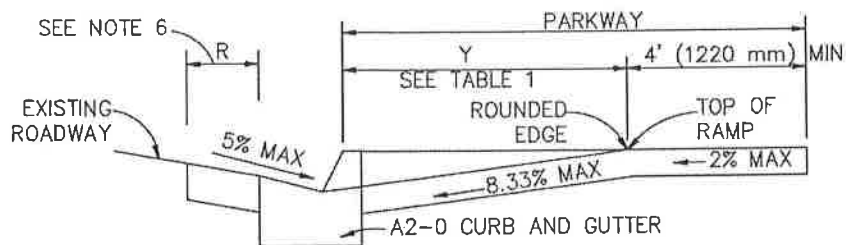


TYPE 1

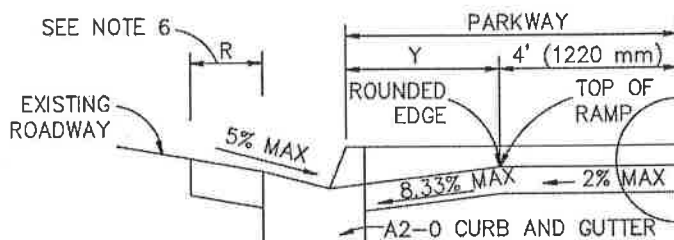


TYPE 2

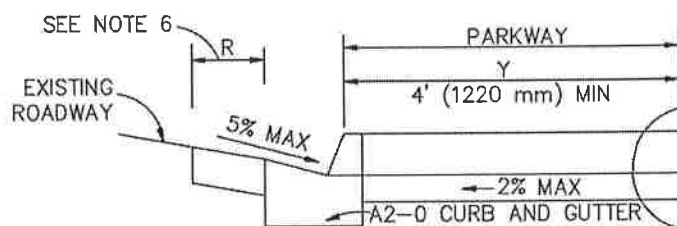
CASE E



SECTION A-A



SECTION B-B

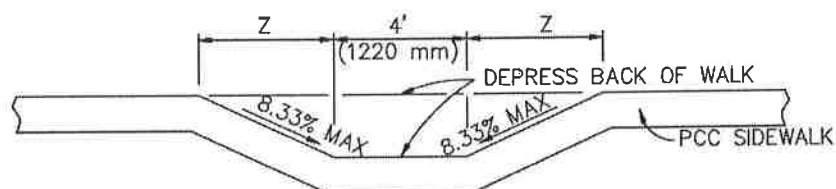


SECTION C-C

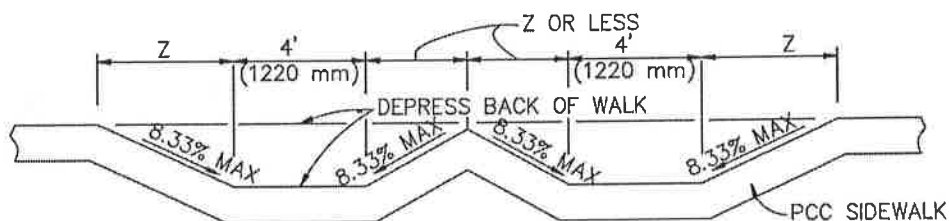
USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A-A, B-B OR C-C IS APPROPRIATE.

DEPRESS BACK OF WALK
SEE DETAIL A, B, C OR D,
SHEET 10.

DEPRESS BACK OF WALK
SEE DETAIL A, B, C OR D,
SHEET 10.



SECTION R-R



SECTION S-S

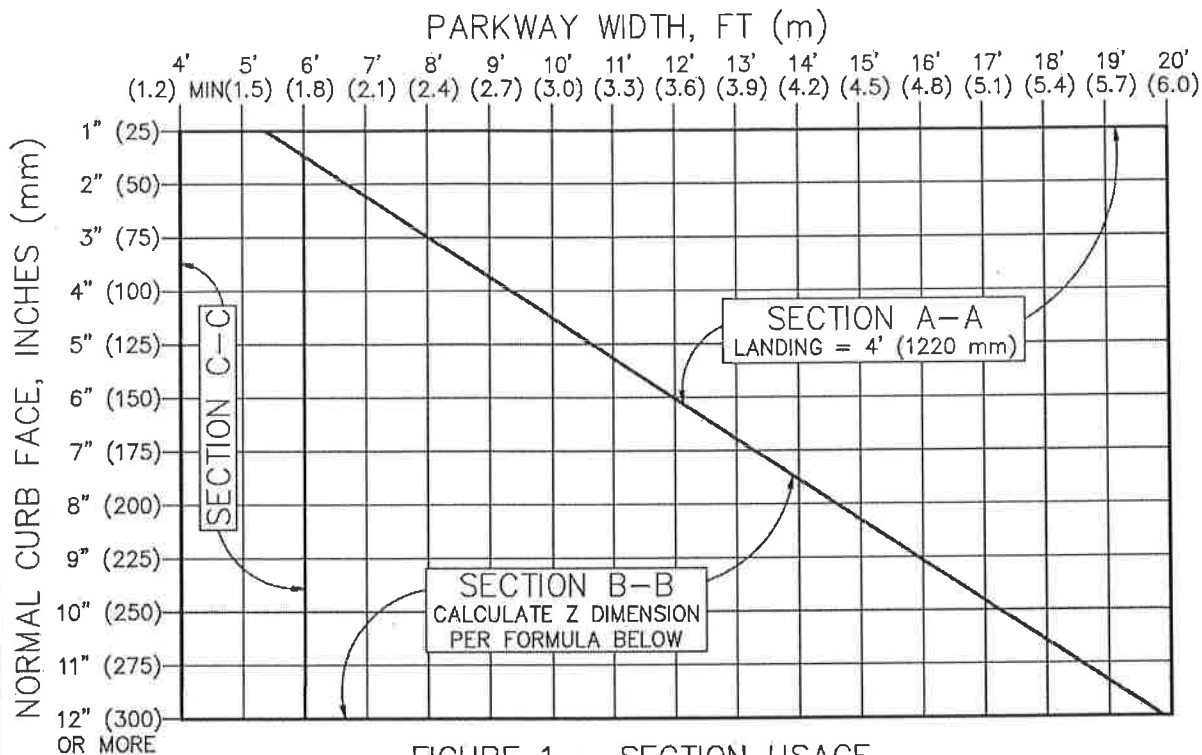


FIGURE 1 - SECTION USAGE

NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y-Y Y, FT (mm)
2" (50)	4.00' (1220) MIN	2.63' (790)
3" (75)	4.00' (1220) MIN	3.95' (1185)
4" (100)	4.00' (1220) MIN	5.26' (1580)
5" (125)	4.17' (1275)	6.58' (1975)
6" (150)	5.00' (1525)	7.90' (2370)
7" (175)	5.83' (1775)	9.21' (2765)
8" (200)	6.67' (2035)	10.53' (3160)
9" (225)	7.50' (2285)	11.84' (3555)
10" (250)	8.33' (2540)	13.16' (3950)
11" (275)	9.17' (2795)	14.47' (4340)
12" (300)	10.00' (3050)	15.79' (4735)

WHERE FIGURE 1 SHOWS USE OF SECTION B-B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH

L = LANDING WIDTH, 4' (1220 mm) TYP

$Z = [(Y+L)-W] \times 0.760$

IF $(Y+L) < W$, THEN $Z = 0$

SEE SHEET 9 FOR STREET SLOPE
ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 - X AND Y VALUES

TABLE 1 REFERENCE FORMULAS:

$X = CF / 8.333\%$

$Y = CF / (8.333\% - 2\% \text{ WALK CROSS SLOPE})$

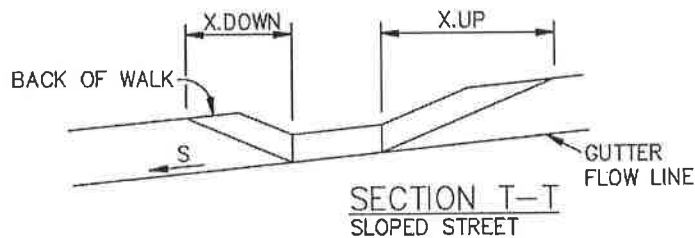
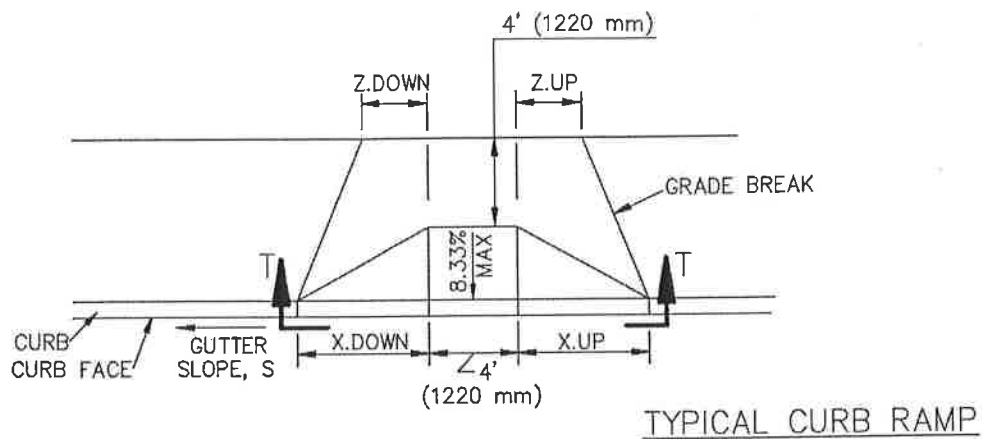
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB RAMP

STANDARD PLAN

111-5

SHEET 8 OF 10



FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP, BY THE FACTORS IN THE FOLLOWING TABLE.

FOR EXAMPLE, $X.DOWN = X \times K.DOWN$

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

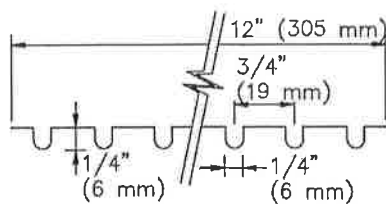
TABLE 2 — SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:

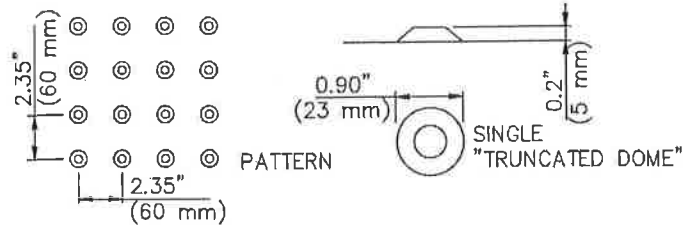
$$K.DOWN = 8.333\% / (8.333\% + S)$$

$$K.UP = 8.333\% / (8.333\% - S)$$

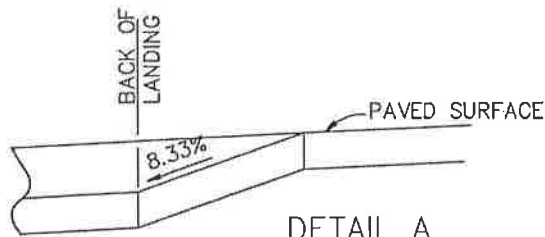
STREET SLOPE ADJUSTMENTS



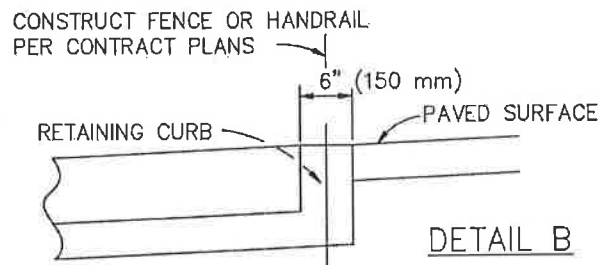
GROOVING DETAIL



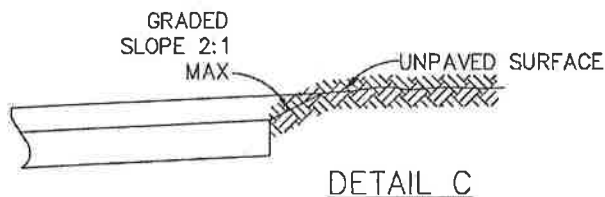
DETECTABLE WARNING DETAIL



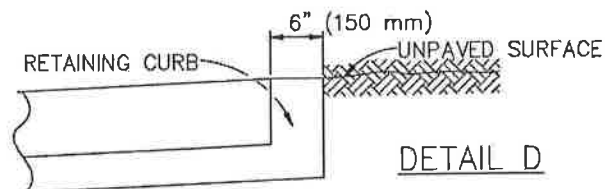
DETAIL A



DETAIL B



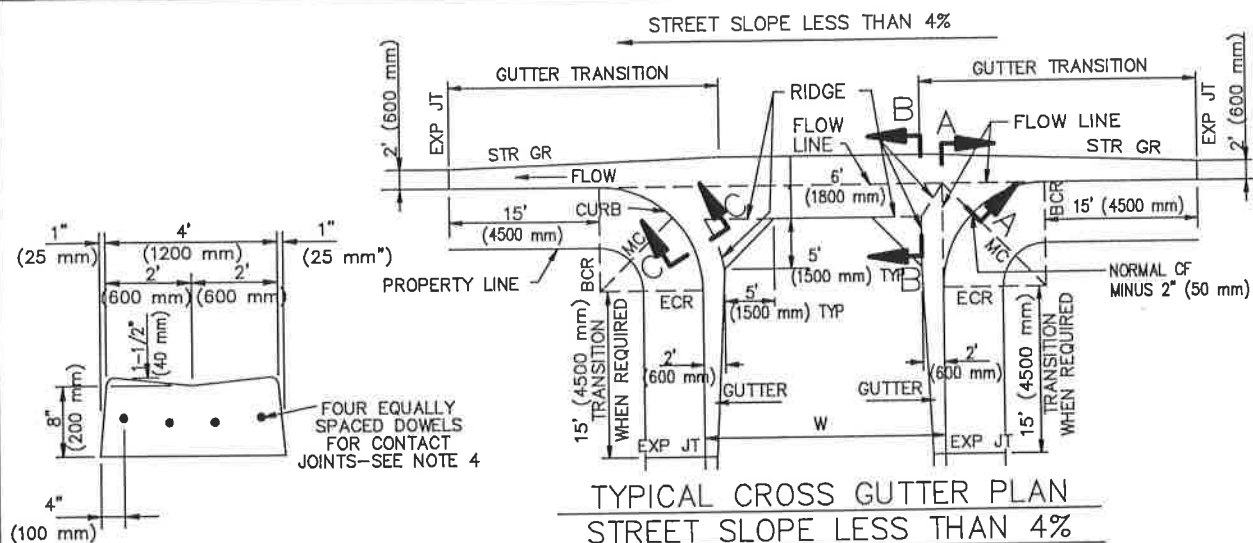
DETAIL C



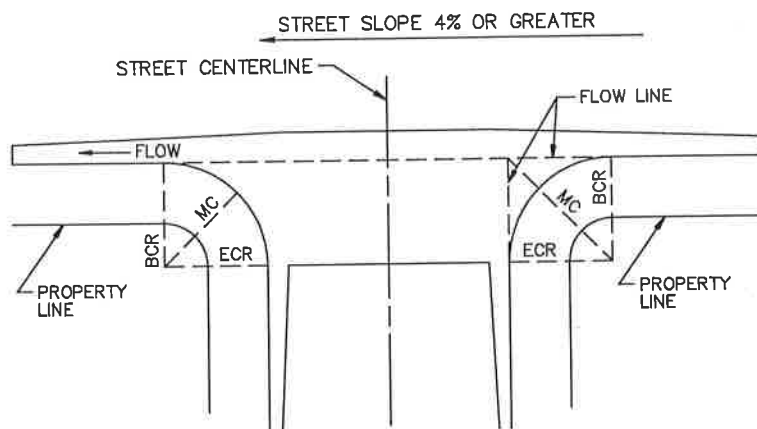
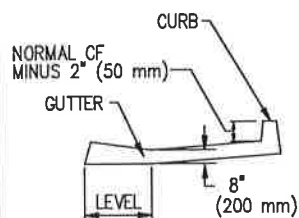
DETAIL D

GENERAL NOTES:

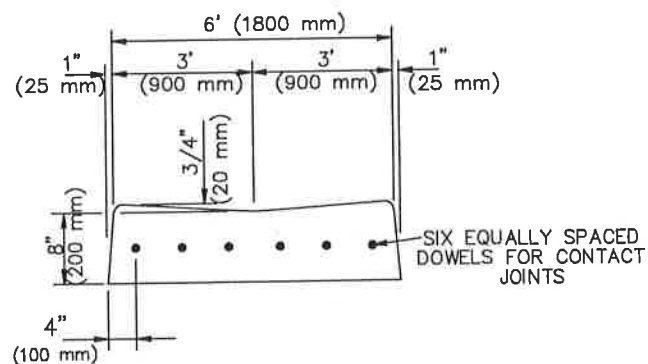
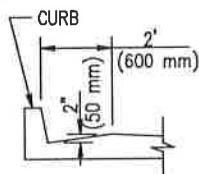
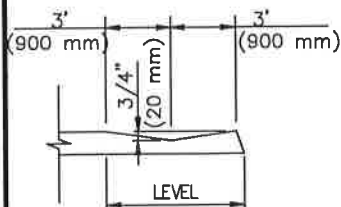
1. CONCRETE SHALL BE CLASS 520-C-2500 (310-C-17) CONFORMING TO SSPWC 201-1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' (900 mm) UNLESS OTHERWISE SHOWN ON PLAN. SEE SHEET 7.
7. ANGLE = $\Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.



LONGITUDINAL
GUTTER



SECTION A-A



SECTION B-B

SECTION C-C

SECTION D-D

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1996, 2009

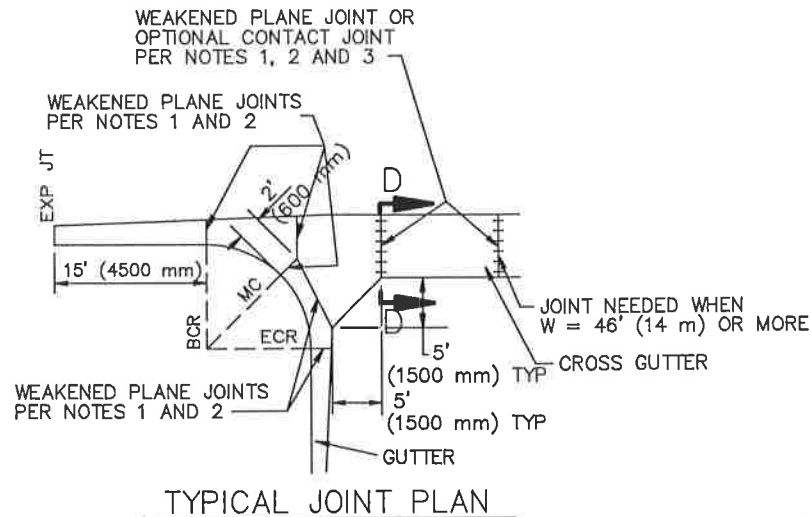
CROSS AND LONGITUDINAL GUTTERS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

122-2


SHEET 1 OF 2



NOTES:

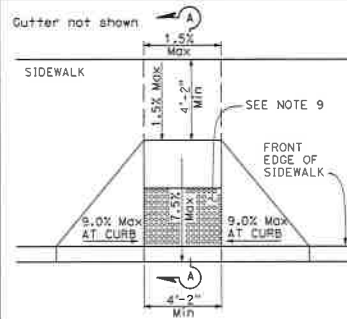
1. WEAKENED PLANE AND/OR CONTACT JOINTS SHALL BE PLACED IN CURB AND GUTTER AT LOCATIONS SHOWN ON THE TYPICAL JOINT PLAN HEREON.
2. WEAKENED PLANE JOINTS SHALL BE PLASTIC CONTROL JOINTS OR 1-1/2" (40 mm) DEEP SAW CUTS. CONCRETE SAWING SHALL TAKE PLACE WITHIN 24 HOURS AFTER CONCRETE IS PLACED.
3. DOWELS FOR CONTACT JOINTS SHALL BE #4 BARS 18" LONG (#13M BARS 450 mm LONG).
4. PLACE A WEAKENED PLANE OR CONTACT JOINT WHERE LONGITUDINAL ALLEY GUTTER JOINS CONCRETE ALLEY INTERSECTION.
5. ALL EXPOSED CORNERS ON PCC GUTTERS SHALL BE ROUNDED WITH 1/2" (15 mm) RADIUS.
6. CONCRETE SHALL BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.

DATE	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
			TOTAL PROJECT	NO.	SHALETS

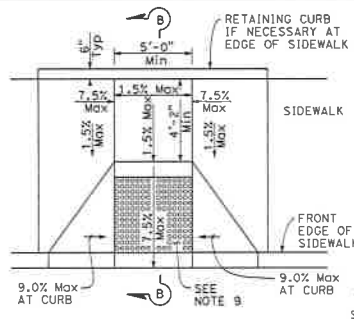

 REGISTERED CIVIL ENGINEER
 No. 241957
 Exp. 3-31-18
 STATE OF CALIFORNIA

July 15, 2016
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

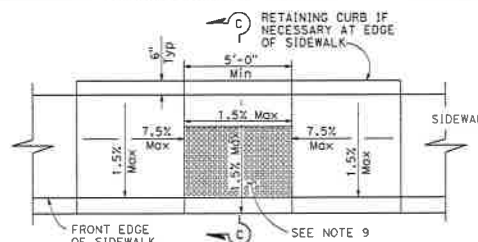
TO ACCOMPANY PLANS DATED _____



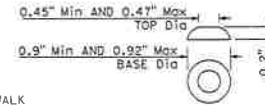
CASE A



CASE B



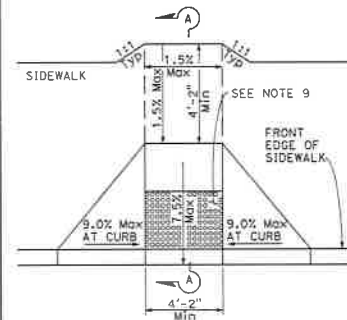
CASE C



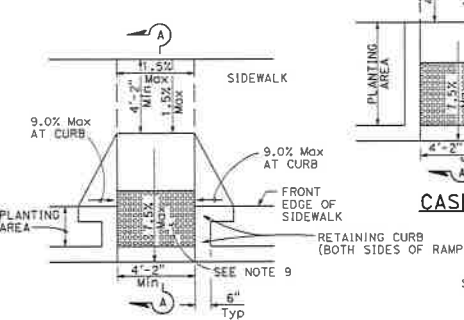
RAISED TRUNCATED DOME

NOTES:

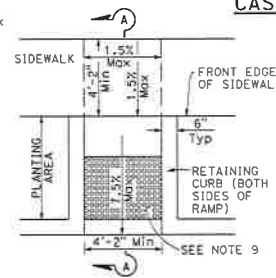
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
- If distance from curb to back of sidewalk (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1:20 (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable Warning Surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3 1/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.



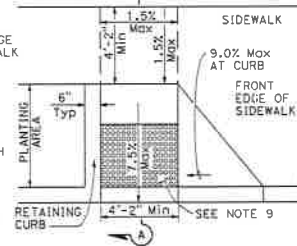
CASE D



CASE E



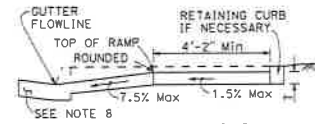
CASE F



CASE G

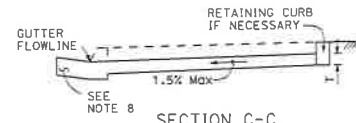


SECTION A-A

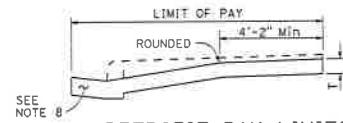


SECTION B-B

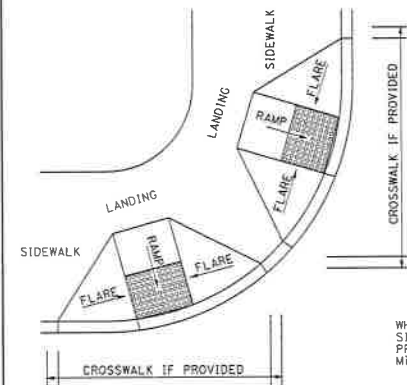
Depress entire sidewalk as required



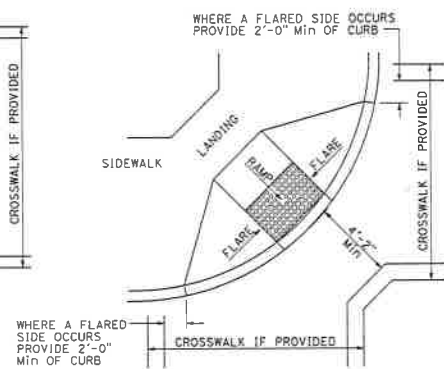
SECTION C-C



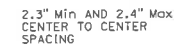
RETROFIT PAY LIMITS
Existing curb and sidewalk



DETAIL A
TYPICAL TWO-RAMP
CORNER INSTALLATION
See Note 1



DETAIL B
TYPICAL ONE-RAMP
CORNER INSTALLATION
See Notes 1 and 3



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CURB RAMP DETAILS
NO SCALE

RSP A88A DATED JULY 15, 2016 SUPERSEDES RSP A88A DATED JULY 3, 2015,
RSP A88A DATED MARCH 21, 2014 AND RSP A88A DATED JULY 19, 2013 AND
STANDARD PLAN A88A DATED MAY 20, 2011 -
PAGE 121 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A88A

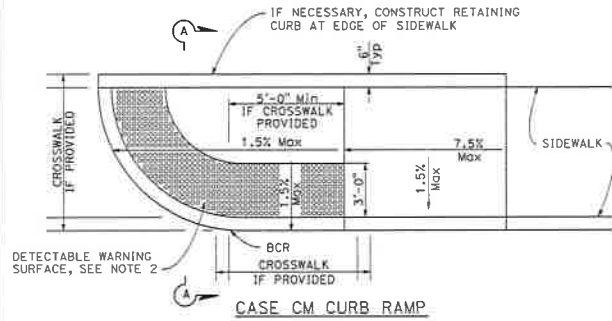
Sheet	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS
H. David Galin REGISTERED CIVIL ENGINEER July 15, 2016 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.				
REGISTERED PROFESSIONAL SEAL Hector David Galin No. C41957 Exp. 5-31-18 State of California				

TO ACCOMPANY PLANS DATED _____

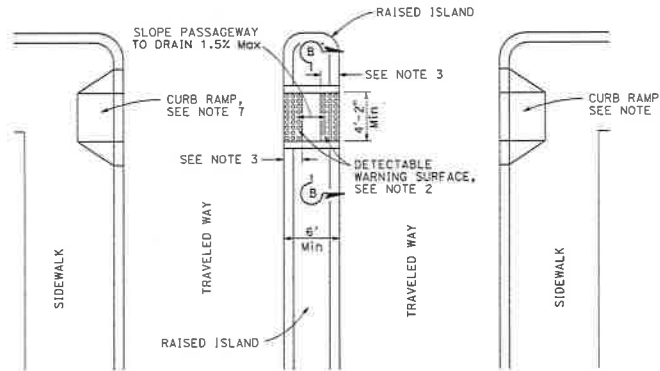
NOTES:

1. Sidewalk, ramp and passageway thickness, "T", shall be 3/2" minimum.
2. For details of detectable warning surfaces, see Revised Standard Plan RSP A88A.
3. Where an island passageway length is greater than or equal to 6'-0", but less than 8'-0", each detectable warning surface shall extend the full width and 2'-0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'-0", each detectable warning surface shall extend the full width and 3'-0" depth of the passageway length. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide island passageway.
4. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.
7. For additional curb ramp details, see Revised Standard Plan RSP A88A.

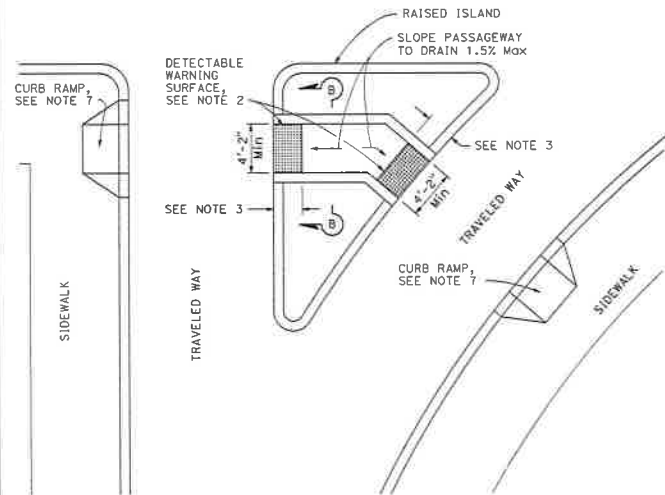
Gutter not shown



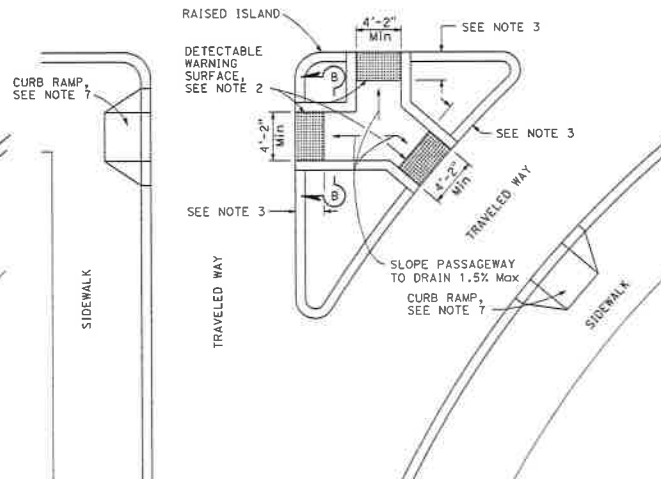
CASE CM CURB RAMP



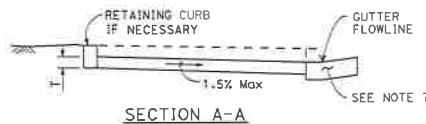
TYPE A PASSAGEWAY



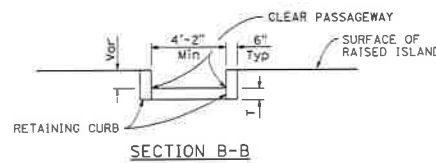
TYPE B PASSAGEWAY



TYPE C PASSAGEWAY



SECTION A-A



SECTION B-B

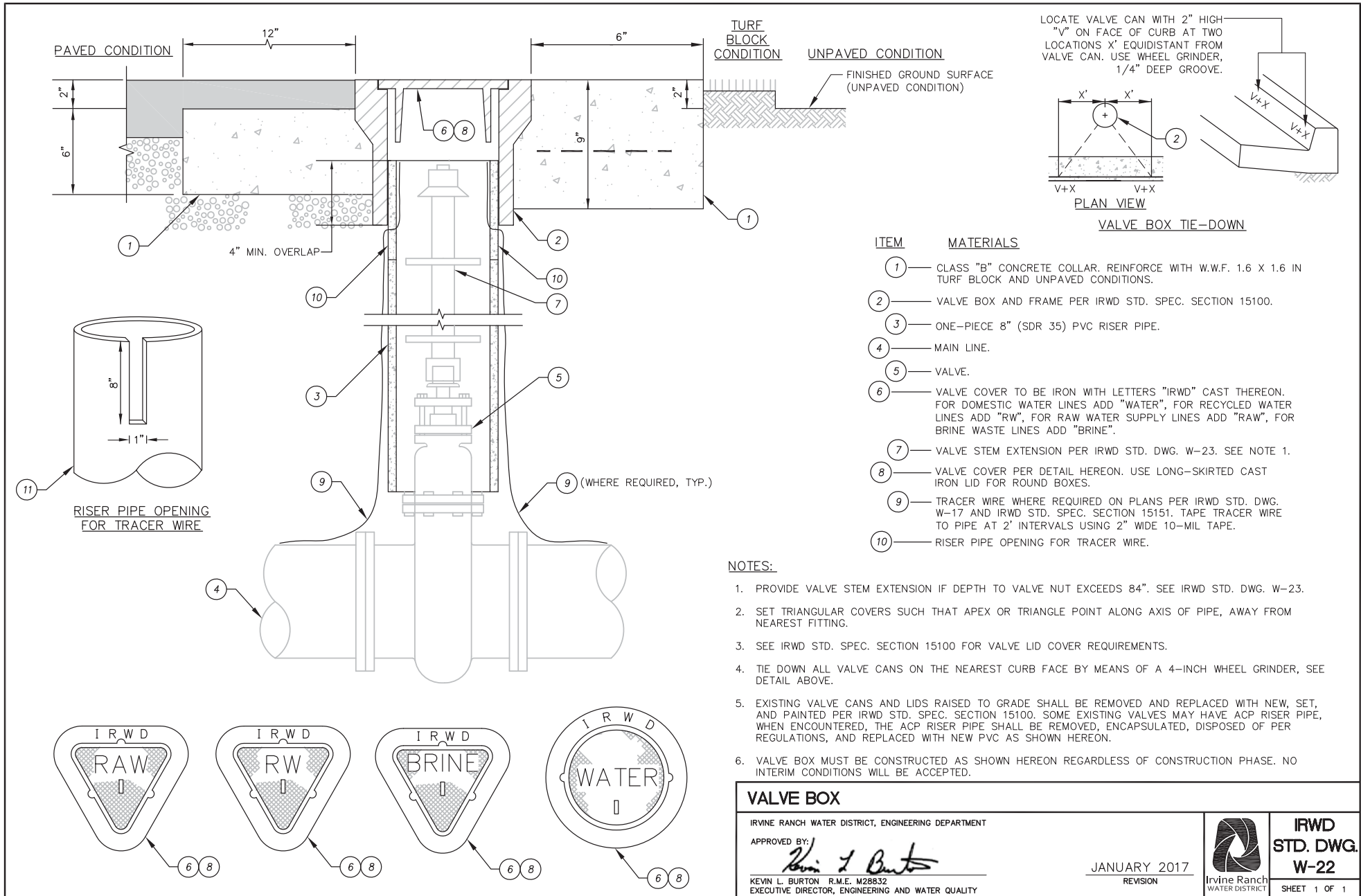
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CURB RAMP AND
ISLAND PASSAGEWAY DETAILS**

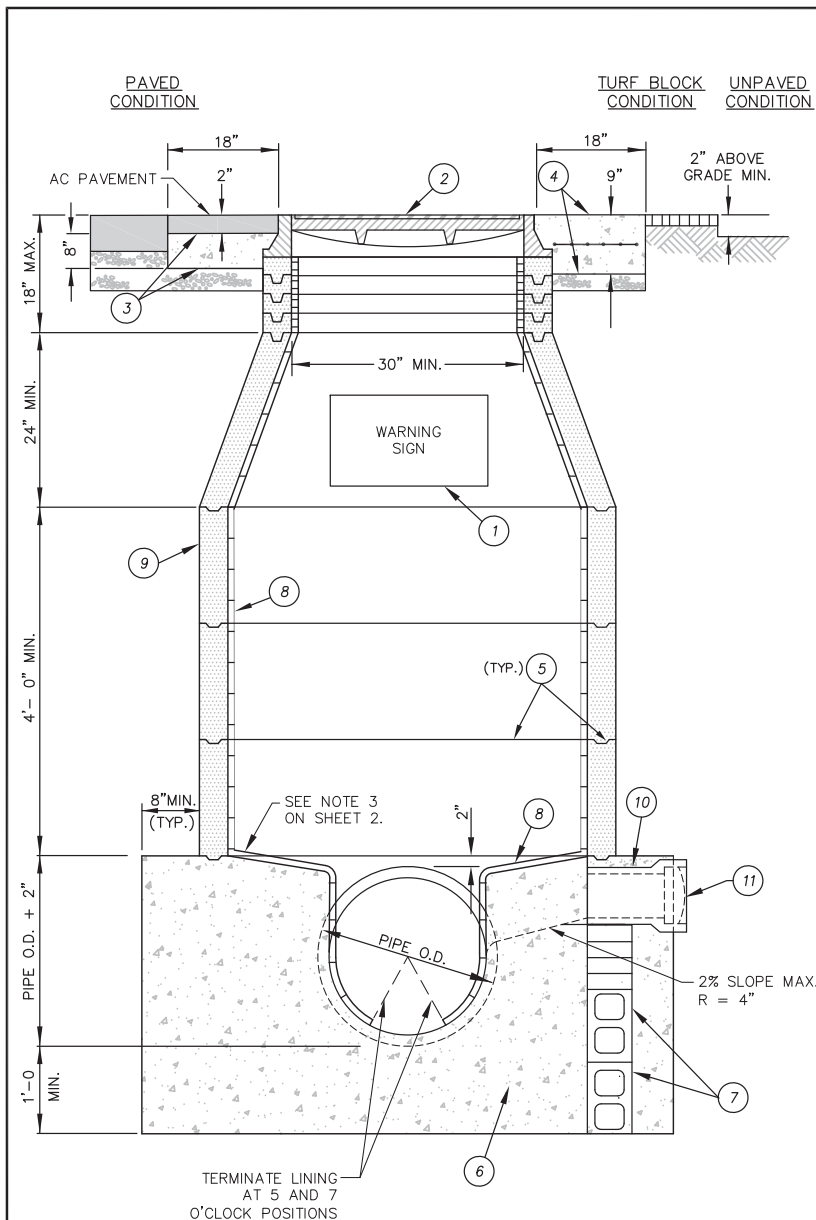
NO SCALE

RSP A88B DATED JULY 15, 2016 SUPERSEDES RSP A88B DATED JULY 3, 2015,
RSP A88B DATED MARCH 21, 2014 AND RSP A88B DATED JULY 19, 2013 AND
STANDARD PLAN A88B DATED MAY 20, 2011 -
PAGE 122 OF THE STANDARD PLANS BOOK DATED 2010.

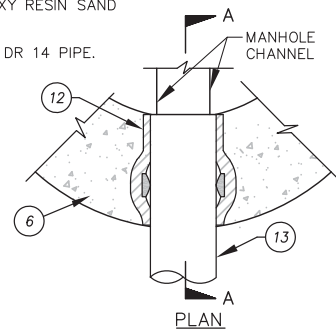
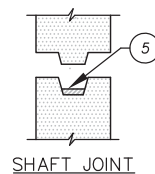
REVISED STANDARD PLAN RSP A88B

2010 REVISED STANDARD PLAN RSP A88B

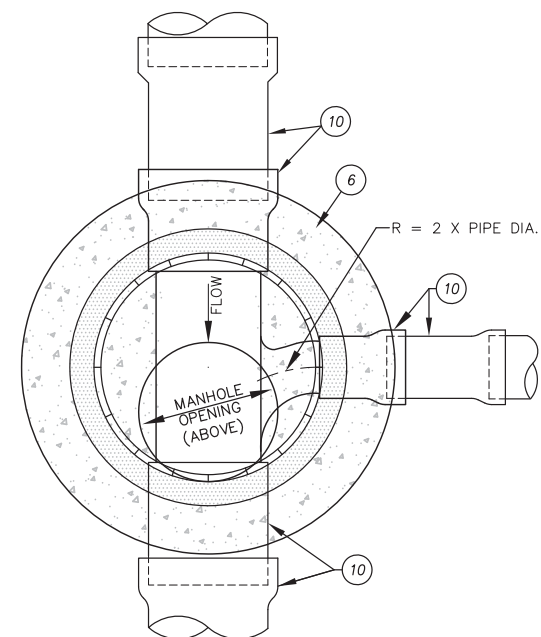




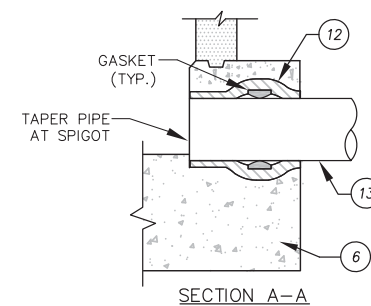
- | ITEM | MATERIALS |
|------|--|
| 1 | STENCILED WARNING SIGN WITH WHITE BACKING. SEE DETAIL ON SHEET 2. |
| 2 | FRAME AND COVER PER IRWD STD. SPEC. SECTION 03461. SEE DETAIL ON SHEET 2. |
| 3 | ROUND CLASS "B" CONCRETE COLLAR AND AC PAVEMENT. |
| 4 | SQUARE CLASS "B" CONCRETE PAD REINFORCE WITH 6" X 6" W.W.F. 10 GAUGE CENTERED IN CONCRETE. |
| 5 | SHAFT JOINT WITH JOINT SEALING COMPOUND. SEE NOTE 8 ON SHEET 2. |
| 6 | CONCRETE MANHOLE BASE, CAST IN PLACE PER IRWD STD. SPEC. SECTION 03300. SEE NOTES 6 AND 8 ON SHEET 2. |
| 7 | CONCRETE BLOCK AND/OR BRICK SUPPORT. SEE NOTE 4 ON SHEET 2. |
| 8 | MANHOLE LINER (WHERE REQUIRED) PER IRWD STD. SPEC. SECTION 09900. APPLY NON-SKID SURFACE ON TOTAL SHELF AREA. |
| 9 | PRECAST CONCRETE MANHOLE SHAFT, MIN. WALL THICKNESS PER IRWD STD. SPEC. SECTION 03461, AND AS NOTED BELOW:
48" DIA. MANHOLE 6" WALL THICKNESS
60" DIA. MANHOLE 6" WALL THICKNESS
72" DIA. MANHOLE 7" WALL THICKNESS |
| 10 | INSTALL 16" LONG VCP THROUGH MANHOLE BASE FOLLOWED BY A 12" LONG VCP, AS SHOWN, FOR FLEXIBILITY. FOR PVC PIPE, REFER TO "PVC PIPE CONNECTION" DETAILS HEREON. |
| 11 | INSTALL TEMPORARY PLUG IN PIPE BELL-JOINT. |
| 12 | FOR SDR-35 PVC PIPE: GASKETED SDR-35 (SDR 26 FOR 15" THRU 18") PVC MANHOLE COUPLING WITH EPOXY RESIN SAND COATING ON EXTERIOR SURFACE.
FOR C900 PVC DR 14 PIPE: GASKETED C900 PVC DR 14 MANHOLE COUPLING WITH EPOXY RESIN SAND COATING ON EXTERIOR SURFACE. |
| 13 | SDR-35 PVC PIPE OR C900 PVC DR 14 PIPE. |



PVC PIPE CONNECTION



MANHOLE BASE WITH VCP CONNECTION



NOTE:
SEE SHEET 2 OF 2 FOR
ADDITIONAL NOTES.

MANHOLE

IRVINE RANCH WATER DISTRICT, ENGINEERING DEPARTMENT

APPROVED BY:

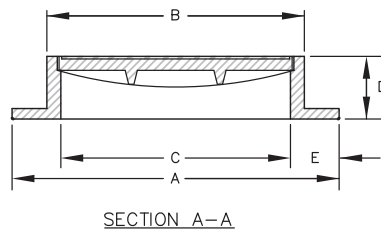
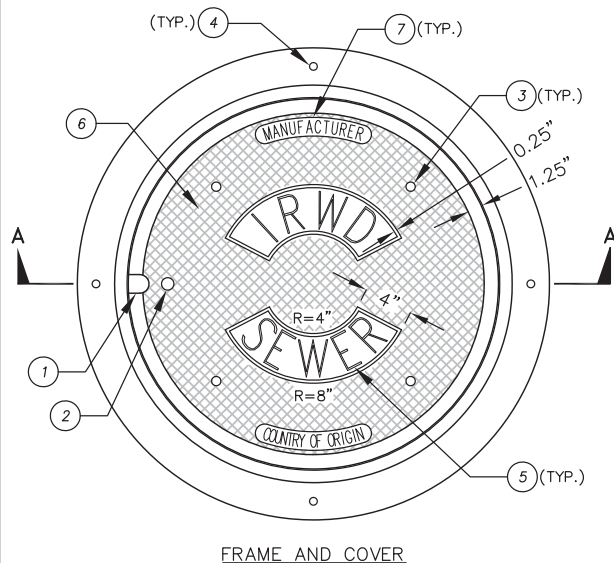
Kevin L. Burton
KEVIN L. BURTON R.M.E. M28832
EXECUTIVE DIRECTOR, ENGINEERING AND WATER QUALITY

JANUARY 2017
REVISION



IRWD
STD. DWG.
S-1

SHEET 1 OF 2

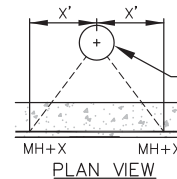


FRAME AND COVER DIMENSIONS		
SIZE (IN)	30	36
A	38	44
B	33	39
C	30	36
D	6	6
E	4	4

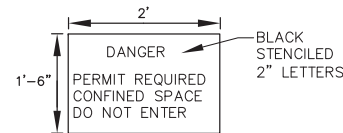
NOTES:

- 48" AND 60" MANHOLES SHALL HAVE 30" COVERS. 72" MANHOLES SHALL HAVE 36" COVERS.
- COAT FRAME AND COVER PER IRWD STD. SPEC. SECTION 09900.
- PLACE TWO HALF MOON SHAPED PLYWOOD COVERS (5/8" THICK MIN.) ON BOTTOM OF MANHOLE AFTER SHAFTS HAVE BEEN SET TO KEEP DEBRIS FROM ENTERING SEWER. REMOVE PLYWOOD PRIOR TO FINAL ACCEPTANCE.
- ALL INLETS AND OUTLETS SHALL BE SUPPORTED WITH CONCRETE BLOCK AND/OR BRICK SUPPORTS, PRIOR TO POURING MANHOLE BASE TO PREVENT PIPE MOVEMENT DURING CONSTRUCTION OF MANHOLE BASE
- ALL PRECAST CONCRETE MANHOLE SHAFTS SHALL BE MANUFACTURED PER IRWD STD. SPEC. SECTION 03461.
- BASE SHALL BE POURED AGAINST UNDISTURBED SOIL. IF SOIL IS DISTURBED, OR IF GROUND WATER EXISTS, CRUSHED ROCK SHALL BE INSTALLED BENEATH BASE PER IRWD STD. SPEC. SECTION 02223.
- CLASS "A" CONCRETE BASE, CAST IN PLACE MONOLITHICALLY.
- PREFORMED COLD-APPLIED READY-TO-USE PLASTIC JOINT SEALING COMPOUND SHALL BE USED FOR ALL MANHOLE JOINTS. REMOVE EXCESS FROM SURFACES INSIDE MANHOLE.
- RETAINING WALLS SHALL BE INSTALLED AROUND MANHOLE WHEN THERE IS AN ADJACENT SLOPE. CONSTRUCT RETAINING WALL PER IRWD STD. DWG. G-4.
- MANHOLES SHALL NOT BE PLACED IN SIDEWALKS WITHOUT PRIOR WRITTEN APPROVAL FROM DISTRICT.
- MANHOLES DEEPER THAN 20'-0" TO TOP OF PIPE SHALL BE DESIGNED BY A REGISTERED CIVIL ENGINEER.
- TIE DOWN ALL MANHOLES ON THE NEAREST CURB FACE BY MEANS OF A 4-INCH WHEEL GRINDER, SEE DETAIL ABOVE.
- INSTALL UTILITY MARKER PER IRWD STD. DWG. G-2 FOR MANHOLES WITHIN UNPAVED AREAS.
- PAINTED WARNING SIGN SHALL HAVE WHITE BACKGROUND AND BLACK LETTERS.
- MANHOLE MUST BE CONSTRUCTED AS SHOWN HEREON REGARDLESS OF CONSTRUCTION PHASE. NO INTERIM CONDITIONS WILL BE ACCEPTED.

LOCATE MANHOLE WITH 2" HIGH "MH" ON FACE OF CURB AT TWO LOCATIONS X' EQUIDISTANT FROM MANHOLE. USE WHEEL GRINDER, 1/4" DEEP GROOVE.

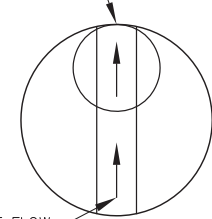


MANHOLE TIE-DOWN



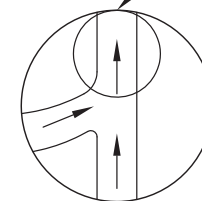
WARNING SIGN WITH WHITE BACKING

WARNING SIGN LOCATION

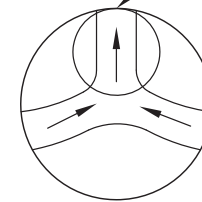


DIRECTION OF FLOW (TYP.)

WARNING SIGN LOCATION



WARNING SIGN LOCATION



WARNING SIGN LOCATION

ORIENTATION OF MANHOLE COVER TO MANHOLE BASE

ITEM MATERIALS

- 1-1/2" LIFTING SLOT.
- 1" THRU HOLE (ONE PLACE).
- 3/4" THRU HOLE (FOUR PLACES).
- 5/8" DIA. HOLES CORED IN FRAME (FOUR PLACES).
- CAST 3" LETTERS, 3/8" THICK, RAISED 3/16", OFFSET 0.25" FROM 0.25" THICK RAISED 3/16" RIBBON EDGE.
- 3/16" RAISED DIAMOND TREAD SURFACE PATTERN.
- MANUFACTURER AND COUNTRY OF ORIGIN STAMP, CAST 1" LETTERS, ORIENTATION AS SHOWN.

MANHOLE

IRVINE RANCH WATER DISTRICT, ENGINEERING DEPARTMENT

APPROVED BY:

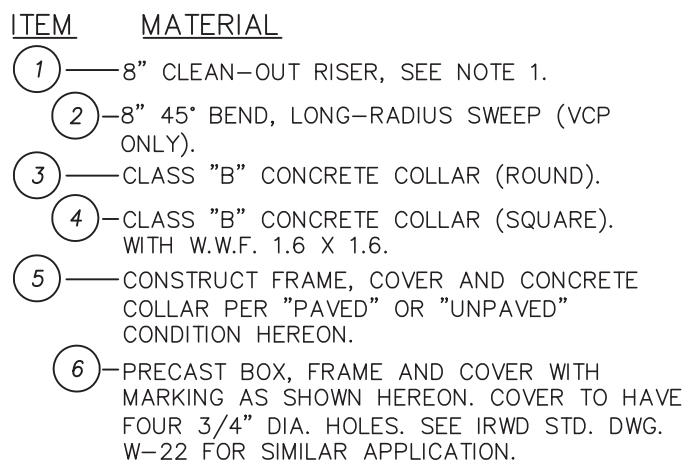
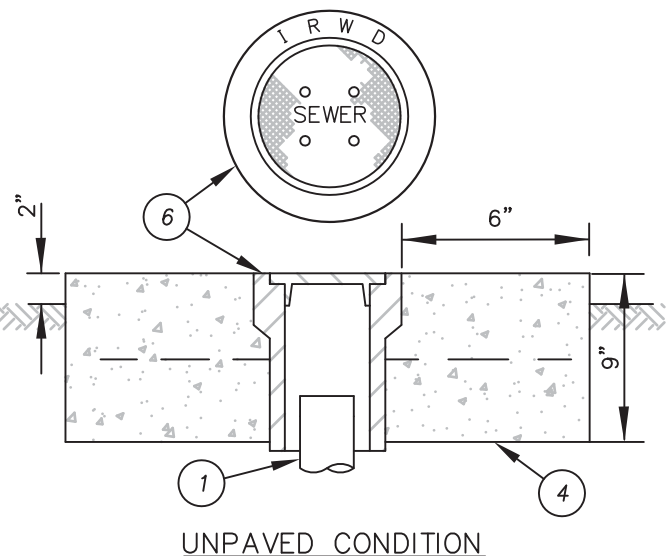
KEVIN L. BURTON R.M.E. M28832
EXECUTIVE DIRECTOR, ENGINEERING AND WATER QUALITY

JANUARY 2017
REVISION



IRWD
STD. DWG.
S-1

SHEET 2 OF 2



NOTES:

1. CLEANOUT RISER PIPE TO BE SAME MATERIAL AS SEWER MAIN.
2. SEWER MAINS LARGER THAN 8" SHALL HAVE TERMINAL MANHOLE.
3. USE BAND SEAL RUBBER REDUCER (VCP/PVC) WHEN VCP IS USED.
4. TIE DOWN ALL CLEANOUTS ON THE NEAREST CURB FACE BY MEANS OF A 4-INCH WHEEL GRINDER, SEE DETAIL ON IRWD STD. DWG. S-1, SHEET 2 FOR SIMILAR APPLICATION.

TERMINAL CLEANOUT

APPROVED BY: _____

KEVIN L. BURTON R.M.E. M28832
EXECUTIVE DIRECTOR, ENGINEERING AND WATER QUALITY

JANUARY 2017
REVISION

Irvine Ranch
WATER DISTRICT

IRWD
STD. DWG.
S-5

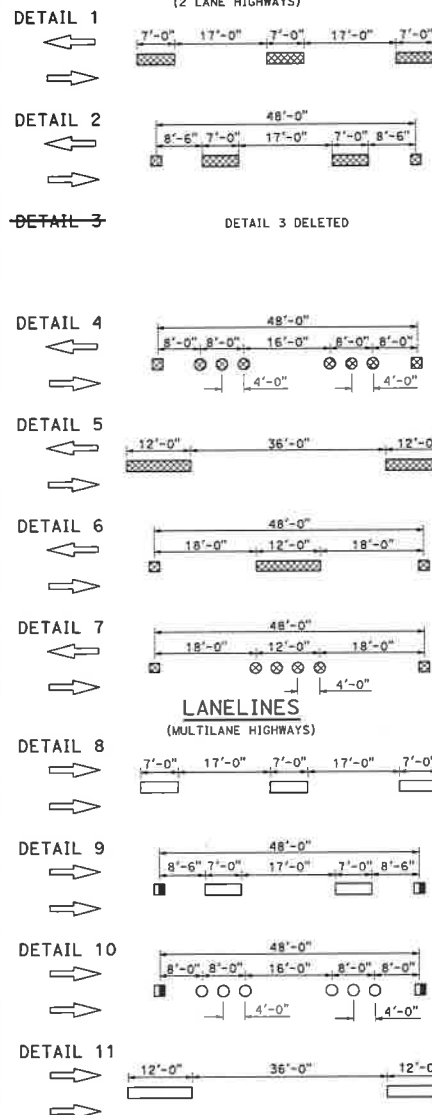
SHEET 1 OF 1

Dist.	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

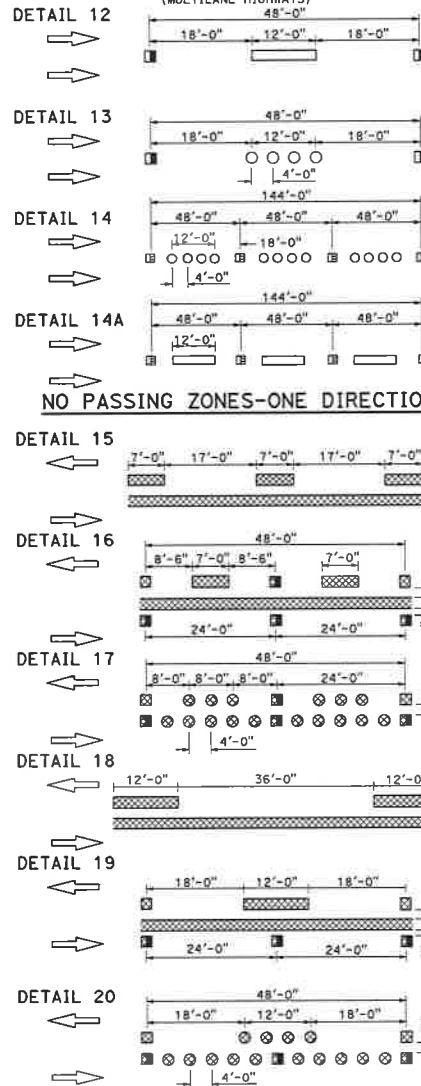
Atiba Jany
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

PROFESSIONAL SEAL
 Atiba Jany
 C00402
 3-31-17
 CIVIL
 STATE OF CALIFORNIA

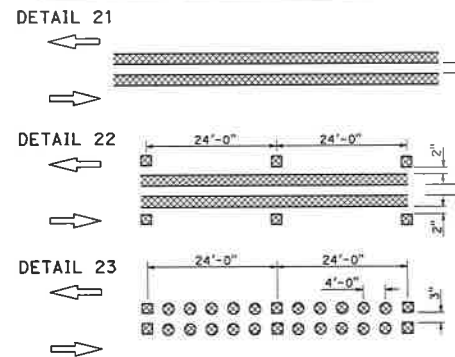
CENTERLINES (2 LANE HIGHWAYS)



LANELINES (Cont) (MULTILANE HIGHWAYS)



NO PASSING ZONES-TWO DIRECTION



LEGEND

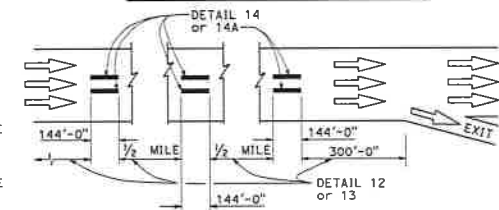
MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ⊗ TYPE AY YELLOW NON-REFLECTIVE
- ▣ TYPE C RED-CLEAR RETROREFLECTIVE
- ▤ TYPE D TWO-WAY YELLOW RETROREFLECTIVE
- ▥ TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- ▦ TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES

- ▬ 4" WHITE
- ▨ 4" YELLOW

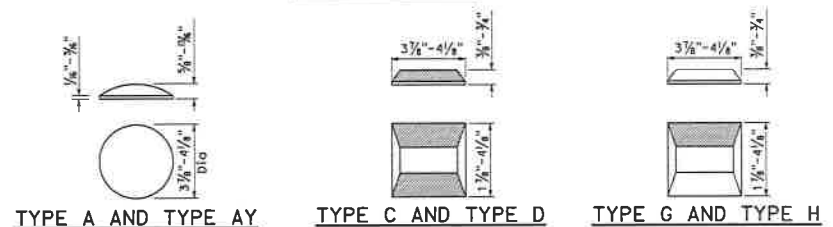
TYPICAL LANE LINE DELINEATION IN ADVANCE OF EXIT RAMP



NOTE:

Detail 14 is to be used in combination with Detail 13. Detail 14A is to be used in combination with Detail 12.

MARKER DETAILS



RETROREFLECTIVE FACE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
 AND TRAFFIC LINES
 TYPICAL DETAILS**

NO SCALE

A20A

SHEET	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET TOTAL
10					

May 20, 2011
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICIALS OR AGENCIES SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

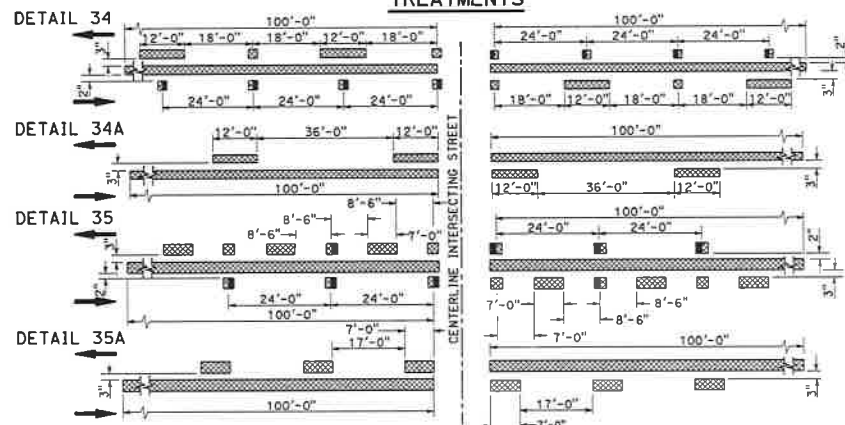
LEGEND

- MARKERS**
- ⊗ TYPE AY YELLOW NON-REFLECTIVE
 - ⊠ TYPE D TWO-WAY YELLOW RETROREFLECTIVE
 - ⊞ TYPE H ONE-WAY YELLOW RETROREFLECTIVE

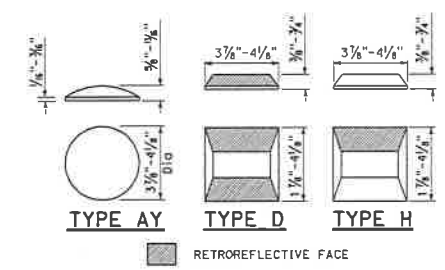
LINES

- ▬ 4" WHITE
- ▨ 4" YELLOW
- ➡ DIRECTION OF TRAVEL

INTERSECTION TREATMENTS

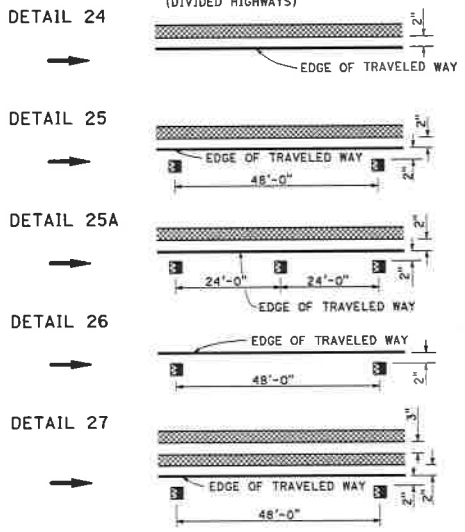


MARKER DETAILS

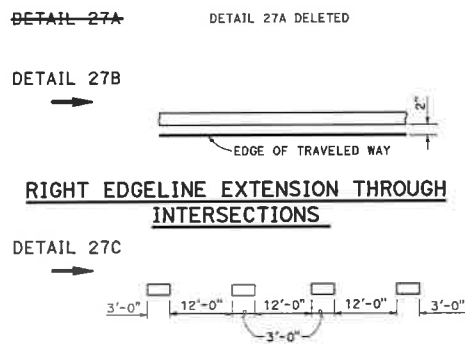


STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
 NO SCALE
A20B

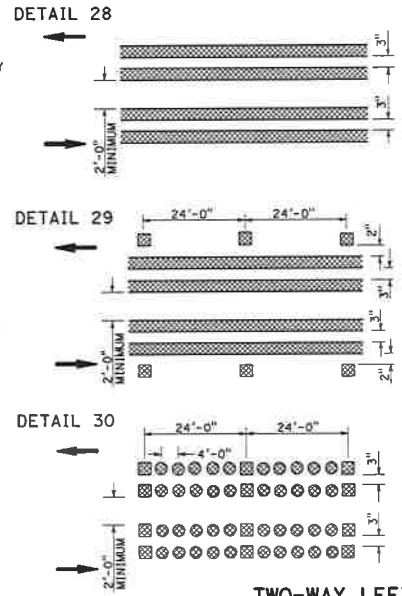
LEFT EDGELINES (DIVIDED HIGHWAYS)



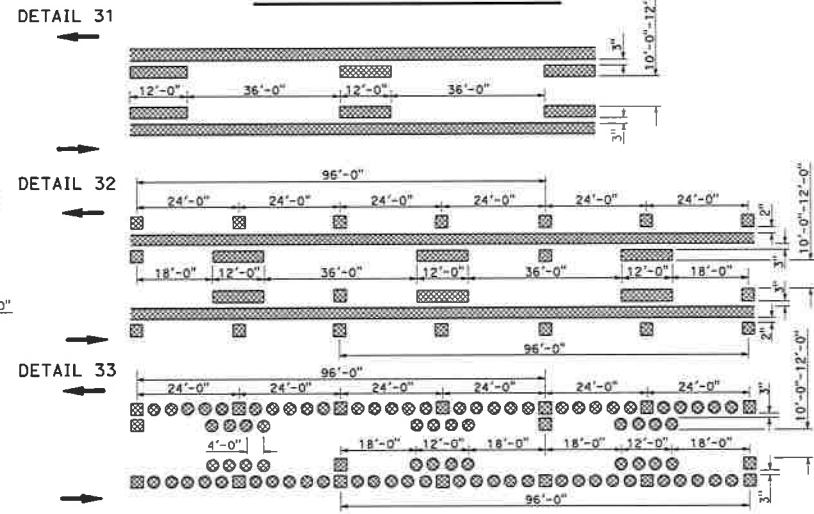
RIGHT EDGELINES



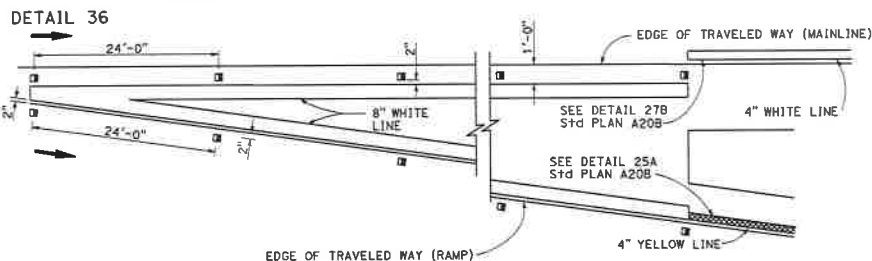
MEDIAN ISLANDS



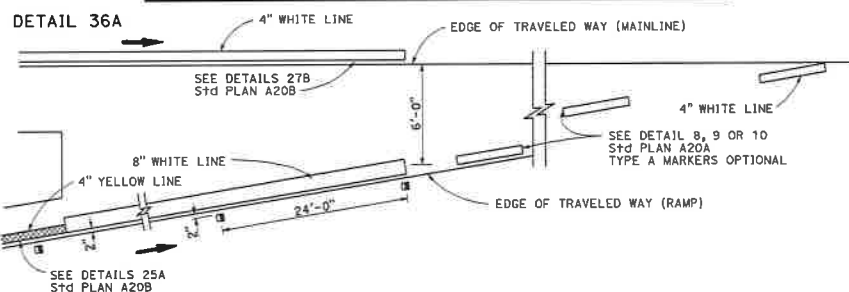
TWO-WAY LEFT TURN LANES



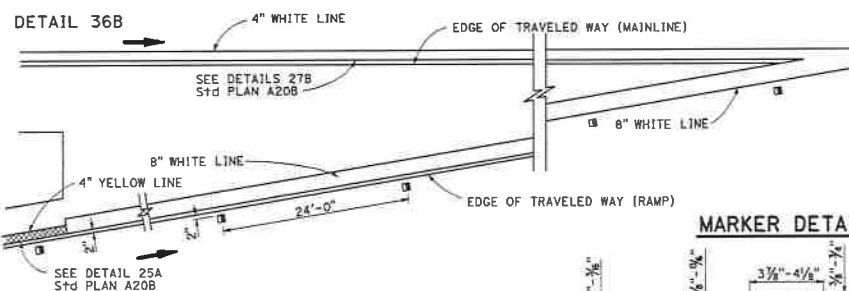
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



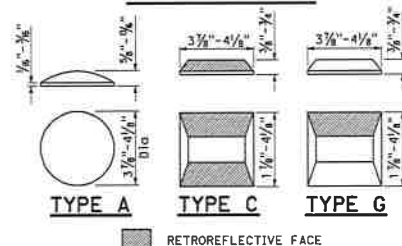
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



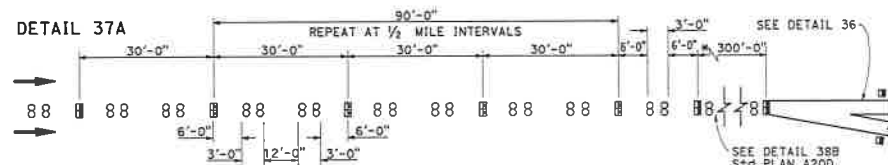
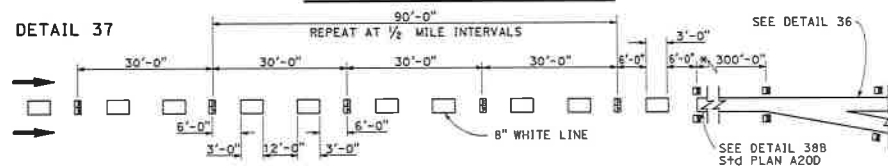
MARKER DETAILS

LEGEND

- MARKERS**
- TYPE A WHITE NON-REFLECTIVE
 - TYPE C RED-CLEAR RETROREFLECTIVE
 - TYPE G ONE-WAY CLEAR RETROREFLECTIVE
 - ➔ DIRECTION OF TRAVEL

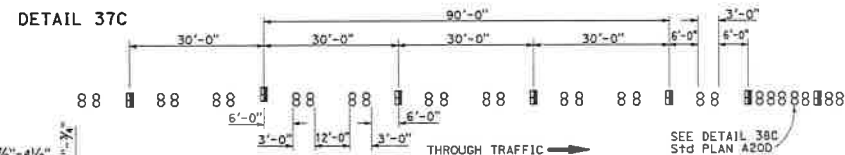
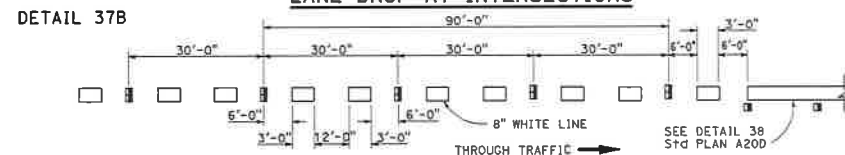


LANE DROP AT EXIT RAMP



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



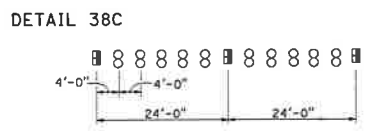
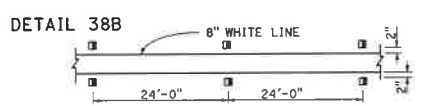
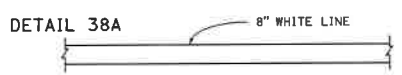
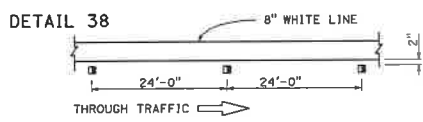
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
AND TRAFFIC LINE
TYPICAL DETAILS**

NO SCALE

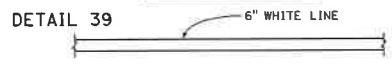
A20C

2010 STANDARD PLAN A20C

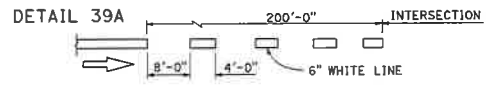
CHANNELIZING LINE



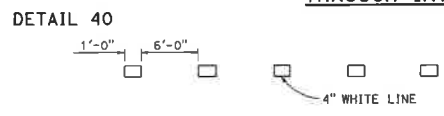
BIKE LANE LINE



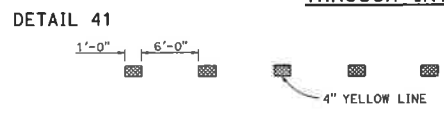
INTERSECTION LINE BIKE LANE



LANE LINE EXTENSIONS THROUGH INTERSECTIONS



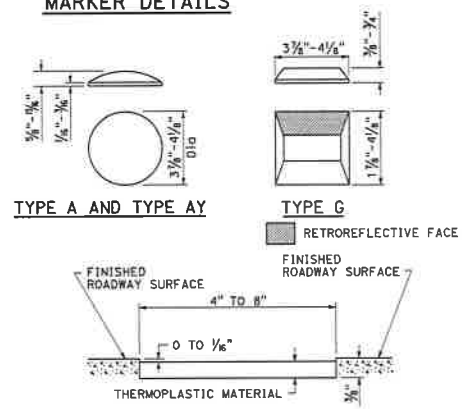
CENTER LINE EXTENSIONS THROUGH INTERSECTIONS



LEGEND MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ⊗ TYPE AY YELLOW NON-REFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- ▨ 4" YELLOW LINE

MARKER DETAILS



DETAIL FOR RECESSED THERMOPLASTIC TRAFFIC STRIPE

See Notes A and B.

RECESSED THERMOPLASTIC NOTES

- See typical traffic line details for pavement marking patterns.
- The top of the thermo-plastic installed in recessed pavement shall be 0 to 1/8" below the pavement surface.

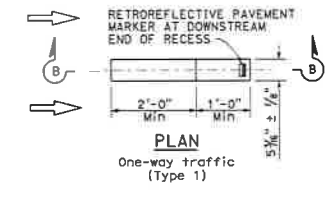
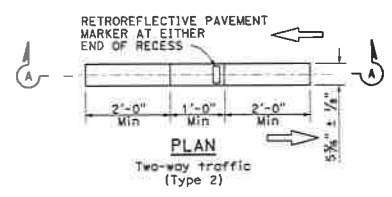
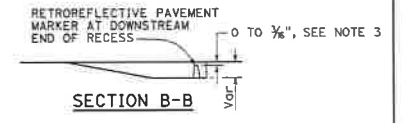
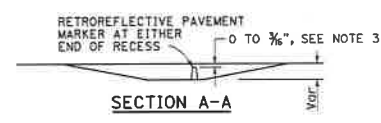
Dist	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

October 30, 2015

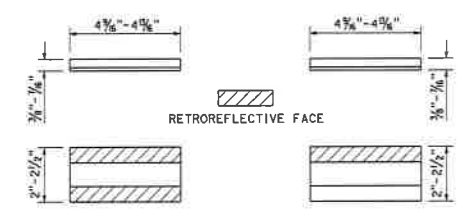
PLANS APPROVAL DATE

3-31-17

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



RECESS DETAIL FOR RETRORFLECTIVE PAVEMENT MARKER



RECESSED MARKER NOTES:

- See typical traffic line details for marker patterns to be used with recessed pavement markers. Detail 14A requires a Type 2 recess.
- The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
- The top of pavement markers installed in recesses shall be 0 to 1/8" below the pavement surface.

TYPE C AND TYPE D TYPE G AND TYPE H

See Notes 1 and 2.

RETRORFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20D

Funding Summary
Annual Street Rehabilitation and Slurry Seal Project
July 25, 2017

Project Expenditures

Construction Contract – City Items (Engineer’s Estimate)	\$ 6,507,000
Construction Contract – IRWD Items (Engineer’s Estimate)	\$ 550,500
Construction Engineering	\$ 400,020
Construction Contingency	<u>\$ 600,000</u>
Total Estimated Project Cost	\$ 8,057,520

Project Funding

CIP 311801 2017-18 Slurry Seal and Street Rehabilitation	\$ 6,985,000
CIP 361807 2017-18 Parking Lot Rehabilitation	\$ 300,000
CIP 341701 2016-17 Off-Street Bicycle Trail Rehabilitation	\$ 200,000
IRWD Reimbursement Funds	<u>\$ 572,520</u>
Total Funding Available	\$ 8,057,520

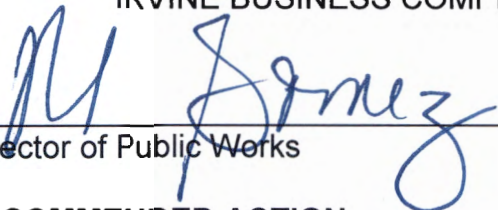
2.8




REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: NOTICE OF REVIEW AND PENDING APPROVAL FOR TRACT MAPS IN IRVINE BUSINESS COMPLEX AND EASTWOOD



Director of Public Works



City Manager

RECOMMENDED ACTION

Receive and file.

EXECUTIVE SUMMARY

The subject notice to the City Council is provided in accordance with City of Irvine Ordinance No. 07-12, notifying the City Council of one final tract map under review by staff and one final tract map pending approval by the City Engineer. Ordinance No. 07-12 delegates authority to the City Engineer for approval of final tract maps and requires notice to the City Council following receipt of such maps for review and again prior to approval/disapproval by the City Engineer. The subject notice satisfies this requirement. This is a ministerial matter and there is no discretionary action to be taken by the City Council with regard to this matter. The tract maps covering property referenced in this staff report are located in the Irvine Business Complex and Eastwood and are available for public review in the Public Works department.

Tract Map No. 17777 (Irvine Business Complex) is located near the intersection of Derian and Kelvin, as shown in Attachment 2. The map for this property contains one, 4.77-acre lot for the development of 371 residential condominium units. This development project is consistent with the Irvine Business Complex Environmental Impact Report approved by the City Council in July 2010 that considered area-wide impacts associated with the ultimate build out for residential units in the Irvine Business Complex.

Tract Map No. 18049 (Eastwood) is located near the intersection of Jeffrey Road and Portola Parkway, as shown on Attachment 3. The map for this property contains the subdivision of 6.93 acres into 63 lots for the development of single-family residences. The Eastwood development is consistent with the Northern Sphere Area Final Environmental Impact Report, approved by City Council in June 2002, which considered area-wide impacts associated with the ultimate build-out for residential units, open space, parks and schools within the corresponding planning area.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Prior to City Engineer approval of a final tract map, the Planning Commission reviews and approves the corresponding tentative tract map based on consistency with the

City's General Plan, Subdivision Ordinance and Zoning Code. The underlying tentative maps referenced in this staff report were approved by the Planning Commission as follows:

On July 2, 2015, the Planning Commission approved the underlying tentative map for Tract Map No. 17777 (Irvine Business Complex) by a vote of 5-0, with all members present.

November 17, 2016, the Planning Commission approved the underlying tentative map for Tract Map No. 18049 (Eastwood) by a vote of 4-1 (Commissioners Bartlett, Duong, Kuo and Smith voting in favor; Commissioner Gaido voting no).

ANALYSIS

The approval of tract maps is a multi-step process that assures development is reflective and compliant with the City's General Plan and with respective provisions of the City's development standards. City of Irvine Ordinance No. 07-12 authorizes the City Engineer to approve final tract maps if they substantially conform to the approved underlying tentative map and all applicable conditions of approval have been satisfied. The ordinance further requires staff to notify the City Council upon receipt of such maps for review and prior to approval/disapproval of a final tract map by the City Engineer. In addition, the State Subdivision Map Act requires the approval of final maps if the City Engineer has found that the final map substantially conforms to the underlying tentative map.

The tract maps listed below have been received and are either under review for consistency with the applicable City standards and corresponding Planning Commission tentative tract map conditions of approval or have been reviewed and are pending the City Engineer's final approval. Following approval and a 15-day appeal period, the map will be released for recordation. Recordation of the maps is required prior to the issuance of building permits.

Submitted by	Tract Map No.	No. of Lots	Location	Status
TA Partners	17777	1-lot map	Derian and Kelvin (Irvine Business Complex)	Under Review
Irvine Community Development Company, LLC	18049	63-lot map	Jeffrey and Alpine (Eastwood)	Pending Approval

ALTERNATIVES CONSIDERED

An alternative to this notification was not considered. Pursuant to the State Subdivision Map Act and City of Irvine Ordinance 07-12, when approval authority of tract map is delegated to the City Engineer, notification to the City Council of receipt and approval of such map is required.

FINANCIAL IMPACT

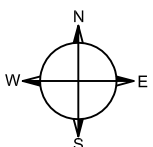
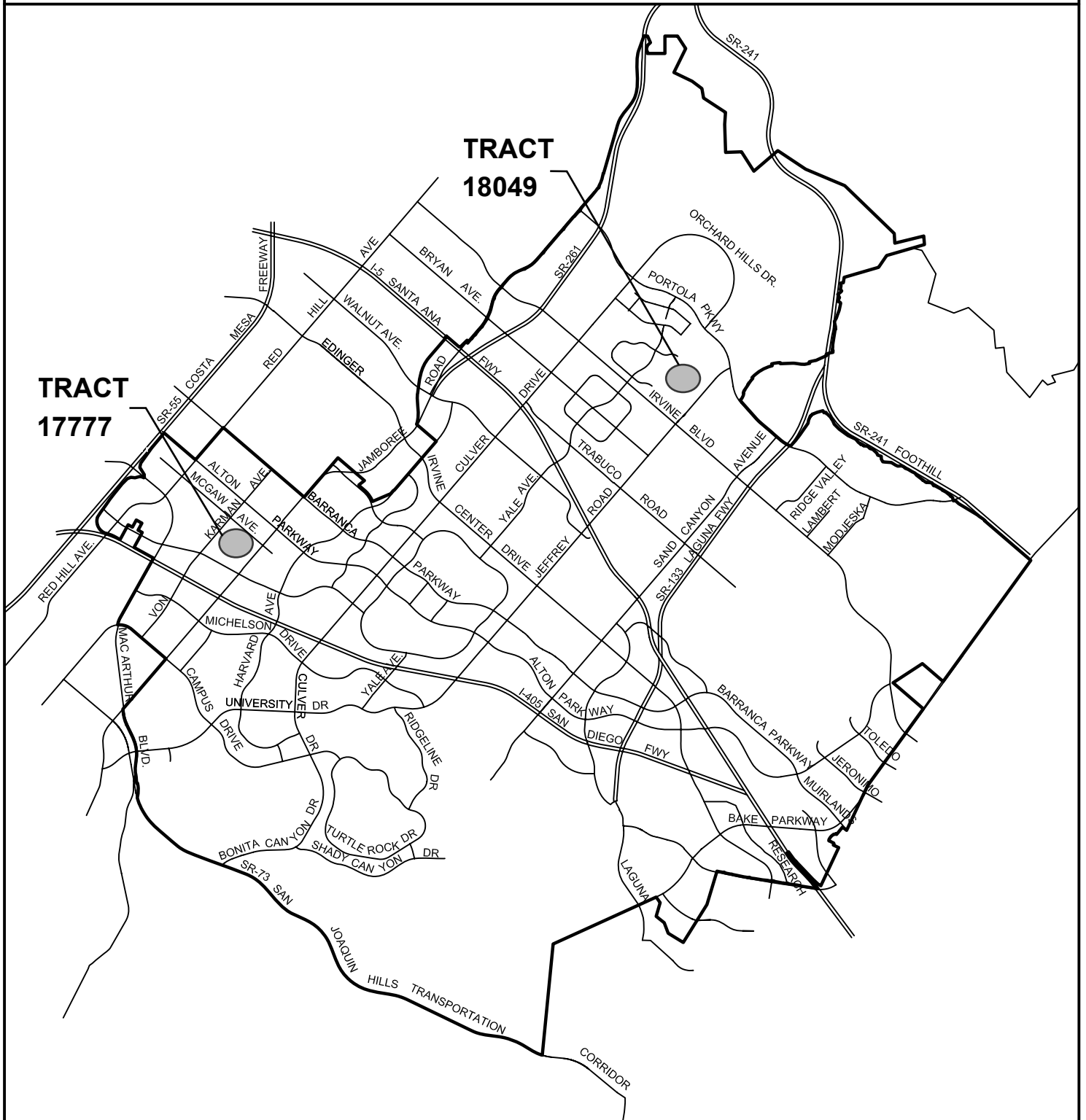
The administrative cost to the City for processing the map is offset by developer fees paid by the applicant submitting the map.

REPORT PREPARED BY Stacey DeLong, Associate Engineer

ATTACHMENTS

1. Vicinity Map
2. Site Map – Tract 17777 (Irvine Business Complex)
3. Site Map – Tract 18049 (Eastwood)

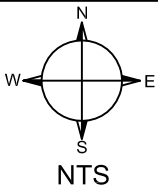
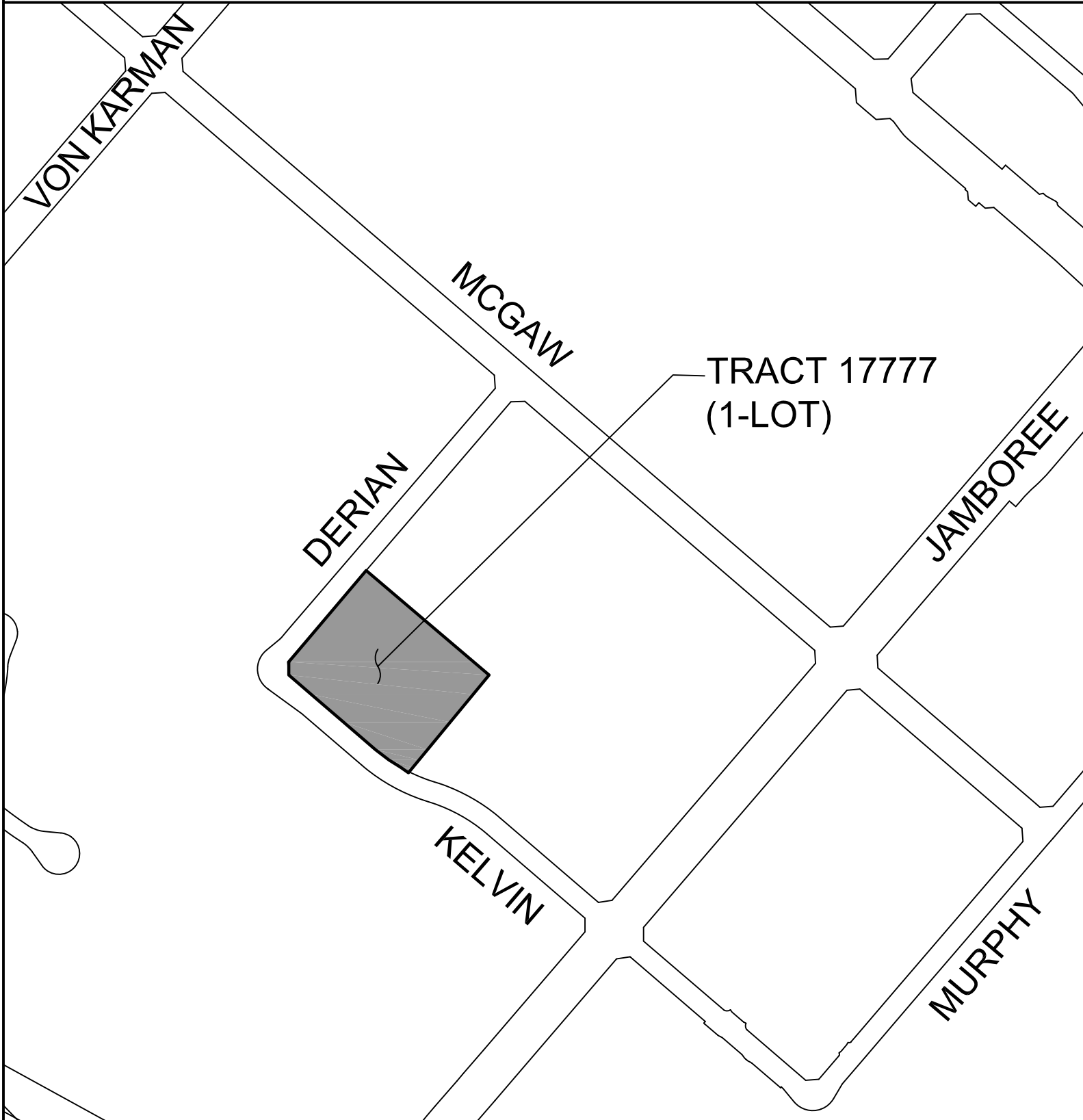
FINAL TRACT MAP Nos. 17777 AND 18049



VICINITY MAP



FINAL TRACT MAP No. 17777

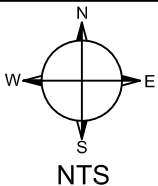
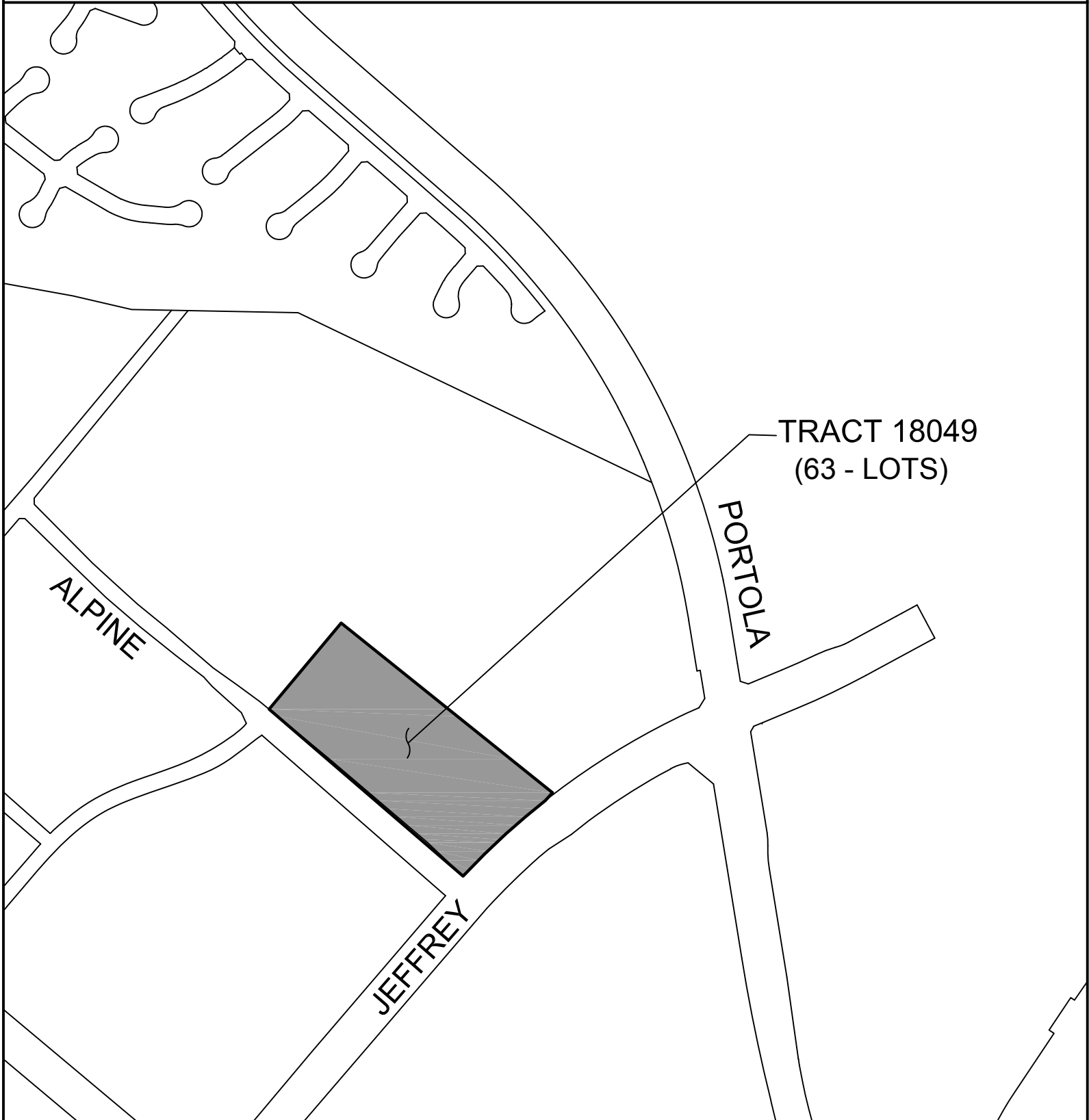


SITE MAP

ATTACHMENT 2



FINAL TRACT MAP No. 18049



SITE MAP




2.9



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: KELVIN AVENUE PEDESTRIAN BRIDGE

for 

Director of Public Works



City Manager

RECOMMENDED ACTION

1. Adopt – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, CERTIFYING THE ADDENDUM TO THE IBC VISION PLAN AND MIXED USE OVERLAY ZONING CODE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT (SCH NO. 2007011024) FOR THE KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT.
2. Authorize the Director of Community Development to execute Amendment No. 2 to the Kelvin Apartments Conditional Use Permit Letter Agreement.

EXECUTIVE SUMMARY

On July 11, 2017, the City Council reviewed the subject project and directed staff to bring back an extension to the developer contribution agreement and a resolution to certify the project Environmental Impact Report (EIR) addendum. The recommended actions will allow staff to immediately proceed with the final design and right-of-way project phases to facilitate construction of the proposed bridge.

COMMISSION RECOMMENDATIONS

The respective City Commissions previously provided input on this matter, which guided the City Council in its July 11, 2017 deliberations.

ANALYSIS

The Kelvin Court Apartments is a 132-unit complex, located at 2552 Kelvin Avenue. The proposed project will construct off-street trail improvements and a new bridge to provide pedestrian and bicycle connectivity across the Barranca Channel between the Kelvin Court Apartments and retail and residential supportive uses along Main Street. The location of the proposed bridge is depicted in Attachment 1.

As part of the project preliminary engineering phase, a Project Feasibility Report (Attachment 2) and an addendum to the 2010 IBC Vision Plan Environmental Impact Report (Attachment 3) were prepared to evaluate potential environmental impacts and

to define the scope and cost estimates for the project. As directed by the City Council, staff prepared a resolution (Attachment 4) for City Council consideration to certify the EIR addendum.

As part of the City's original approval of the Kelvin Court Apartments project, the applicant was required to enter into an agreement to provide easements on its property for public access to the proposed bridge and to provide a contribution of \$184,000 towards the construction of the bridge. The property owner, Kelvin Court Limited Partnership, has agreed to extend the term of the agreement (Attachment 5) to facilitate the project moving forward.

ENVIRONMENTAL REVIEW

In accordance with the California Environmental Quality Act (CEQA) Public Resources Code section 21000 et. seq. an addendum was prepared to address potential environmental impacts of the Kelvin Bridge Project. The addendum supplements the IBC EIR, which was certified by the City Council on July 13, 2010, and is available for public review in the Public Works department. These documents serve as the environmental review of the proposed bridge project, as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 CCR Section 15000 et. seq. (CEQA Guidelines), and the City's procedures for CEQA implementation.

Although the proposed Kelvin Bridge was not initially identified as a future improvement within the IBC Vision Plan EIR, the project is consistent with several other pedestrian bridges identified in the EIR. As such, the addendum covers the incorporation of the proposed project as a transportation infrastructure improvement intended to enhance local and regional connectivity within the IBC. Based on the addendum findings and supporting environmental analysis, the proposed project is not expected to result in any new significant impacts that were not previously addressed in the IBC Vision Plan EIR, nor are there substantial increases in the severity of any previously identified environmental impacts.

ALTERNATIVES CONSIDERED

None. The recommended actions are consistent with the July 11, 2017 City Council direction to staff.

FINANCIAL IMPACT

Expenditures to date for preliminary engineering and preparation of environmental documents are approximately \$120,000. The preliminary cost estimate for the final design, right-of-way, and construction project phases is \$500,000. Funding is available in the Capital Improvement Program budget from a combination of development fees and the Kelvin Court Apartment property owner contribution.

REPORT PREPARED BY James Houlihan, Manager of Engineering

ATTACHMENTS

1. Project Vicinity Map
2. Feasibility Report
3. IBC Vision Plan EIR Addendum
4. Resolution
5. Kelvin Apartments Letter Agreement Amendment No. 2

Project Vicinity Map



Kelvin Avenue Pedestrian Bridge Project Feasibility Study



City of Irvine

One Civic Center Plaza
Irvine, CA 92606

Contact: Ms. Lisa Thai
949.724.7384

PREPARED BY:

RBF Consulting

14725 Alton Parkway
Irvine, California 92618

Contact: Mr. Gary Warkentin
949.855.3625

June 2015

JN 141597

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	Attachment 4 – Preliminary Foundation Report	
	Attachment 5 – Kelvin Avenue Pedestrian Bridge – Barranca Storm Channel Basis of Design Report	
	Attachment 6 – County Plan Check Comments and Responses	



I. INTRODUCTION

In July, 2008, the City of Irvine entered into an agreement with Wood Partners to design, construct and secure public easements and landings between Main Street Village Apartments and the Orange County Flood Control District associated with a proposed pedestrian bridge. The agreement was executed to fulfill Condition E.10.b.2 of Conditional Use Permit 47198-CPU. The specific terms of the agreement are included in the report attachments. The purpose of this Feasibility Study is to provide preliminary engineering to support the feasibility of the proposed pedestrian bridge and provide definition of the project for the supporting environmental document and clearance of the project.

II. BACKGROUND

In July, 2012, the City of Irvine prepared a preliminary plan for the proposed pedestrian bridge over Barranca Channel that was reviewed by Orange County Flood Control District. Comments were provided by the County and the permit application was subsequently closed absent responses. That initial concept and comments are included in the report attachments and serve as a basis for the refined concept presented in this Feasibility Study.

III. EXISTING FACILITY

Barranca Channel Existing Conditions

Barranca Channel is owned and maintained by the Orange County Flood Control District (OCFCD). The OCFCD designation for the Barranca Channel is F09. The channel was initially constructed in 1971. The existing channel at the proposed bridge is a riprap lined trapezoidal shape with 1.5:1 side slopes. The channel is 12.5-ft deep with a 16-ft bottom width. There is a six inch depression from the channel wall toe to the channel invert. Subsequent projects have added box culverts for street crossings, and a 1993 emergency repair project widened the most downstream reach of the channel (Main Street to Jamboree Road). The channel is tributary to San Diego Creek. San Diego Creek was the subject of a Project Report that determined the ultimate channel size and design water surface elevations in 1987. OCFCD uses these elevations as the downstream control for design calculations, because San Diego Creek has not yet been expanded to the ultimate size. The San Diego Creek Project Report also developed recommendations for an ultimate Barranca Channel using a rectangular concrete channel.

Flow rates for the Barranca Channel are documented in the "Final Runoff Management Plan for Tustin Legacy" (RBF Consulting, December 2004). This report is cited in the "San Diego Creek Master Plan" (RBF Consulting, September 30, 2013) for the source of the Barranca Channel flow rates. The San Diego Creek Master Plan Table 7.1 recommends a peak flow rate at the confluence with Barranca Channel (CP6K) of 28,600 cfs for the 100-year High Confidence event. The 1987 San Diego Creek Project Report Table 2.2 indicates a flow rate of 30,000 cfs for the same location. Therefore the design water surface from the San Diego Creek Project Report is validated as a conservative and effective water surface for the ultimate design.

The existing channel plans are on the NGVD29 datum; therefore the models are all developed on the same datum. Flow depths provide a basis for comparisons to proposed improvements but elevations from the models and As-Builts should not be applied directly to a NAVD88 design.



Barranca Channel Future Considerations

The As-Built Plans for Barranca Channel were compiled into a hydraulic model using the WSPG 2.4 software. The model covers the channel from the outlet at San Diego Creek to the RCB outlet at Barranca Road. This equates to Channel Station 2+84 to 89+80. The proposed Kelvin Pedestrian Bridge is at approximate Channel Station 28+10.

Existing condition calculations based on the existing channel show the current depth at the proposed bridge is 9.9 feet. This is within the OCFCD requirements for freeboard, but upstream portions of the channel are deficient. Channel sizes and box culvert sizes were increased using the rectangular cross section assumed in the San Diego Creek Project Report, but a soft bottom is assumed to facilitate resource agency approvals. The Barranca Channel is modeled using concrete walls, a soft (vegetated) invert, and riprap transitions in and out of the box culverts. Box culverts are assumed to be removed/replaced with ultimate width facilities having the same vertical rise.

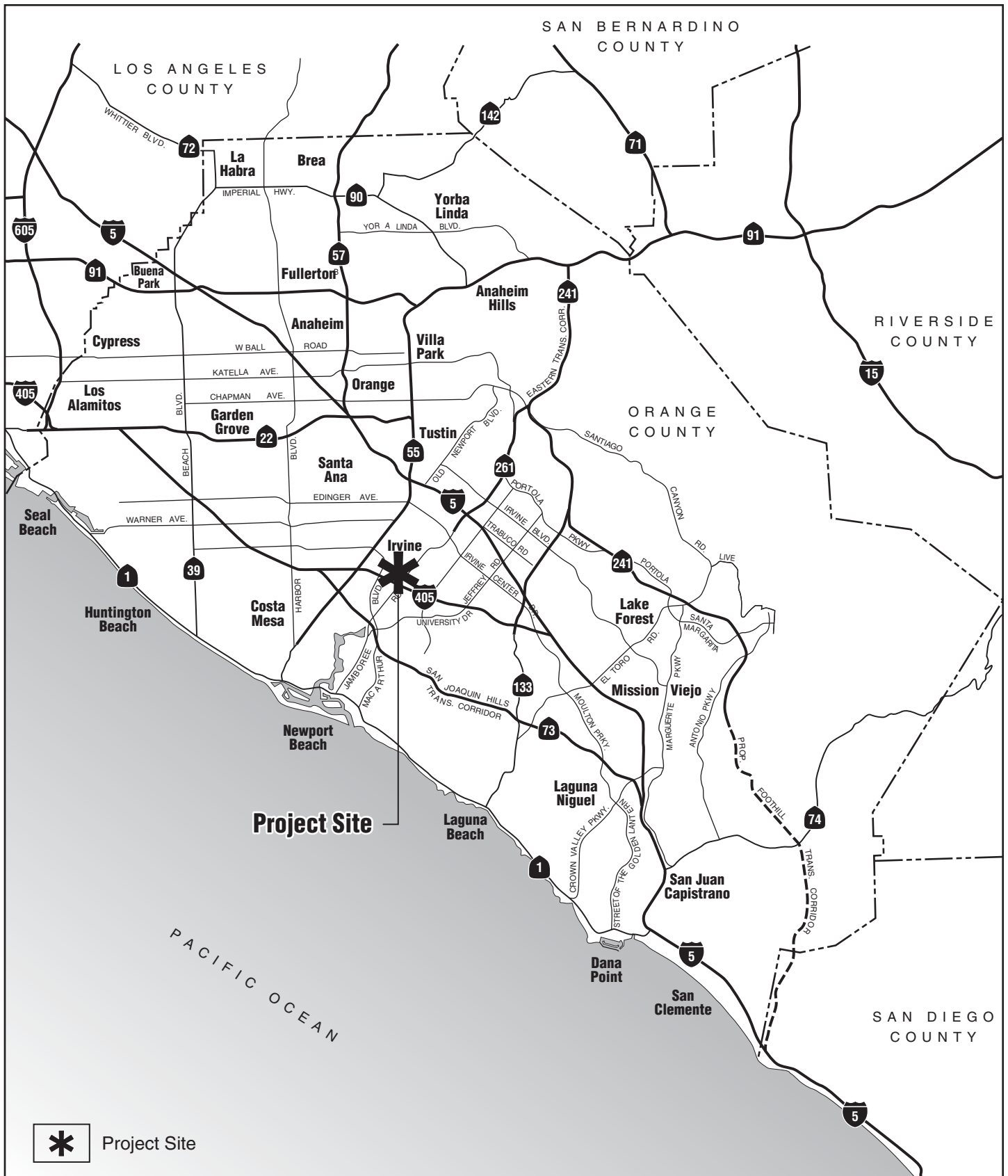
Proposed condition calculations are based on meeting the OCFCD Flood Control Design Manual Addendum 3 (Freeboard) and Addendum 4 (Maintenance Requirements). The Freeboard goal per Addendum 3 for a non-leveed channel with design frequency of 100-years is 1.5 feet. This is applied to the rectangular channel and the box culvert sections. OCFCD policy is for short box culverts to flow as open channels, therefore 1.5 feet of freeboard is maintained between the box soffit and the water surface in the roadway crossings too. The ultimate depth in San Diego Creek is above the soffit of the box culvert at the downstream end of Barranca Channel (beneath Main Street). It is not possible for this portion of the channel to flow without reaching the soffit of the box culvert. At this location, flow is permitted to seal the box culvert. Scour in the proposed channel was verified by using a Manning's "n" value of 0.020. The freeboard was checked using "n" values of 0.035. The access requirements for the channel are 14-ft all-weather access roads on both sides of the channel and a minimum 12-ft clearance under bridges to permit maintenance vehicles to pass beneath. The existing channel width at the Kelvin Pedestrian Bridge is 56.5 feet. The recommended vertical channel width would be 50 feet. The proposed bridge should span the existing channel, and accommodate the ultimate rectangular channel.

IV. PROJECT DESCRIPTION

A. Project Location

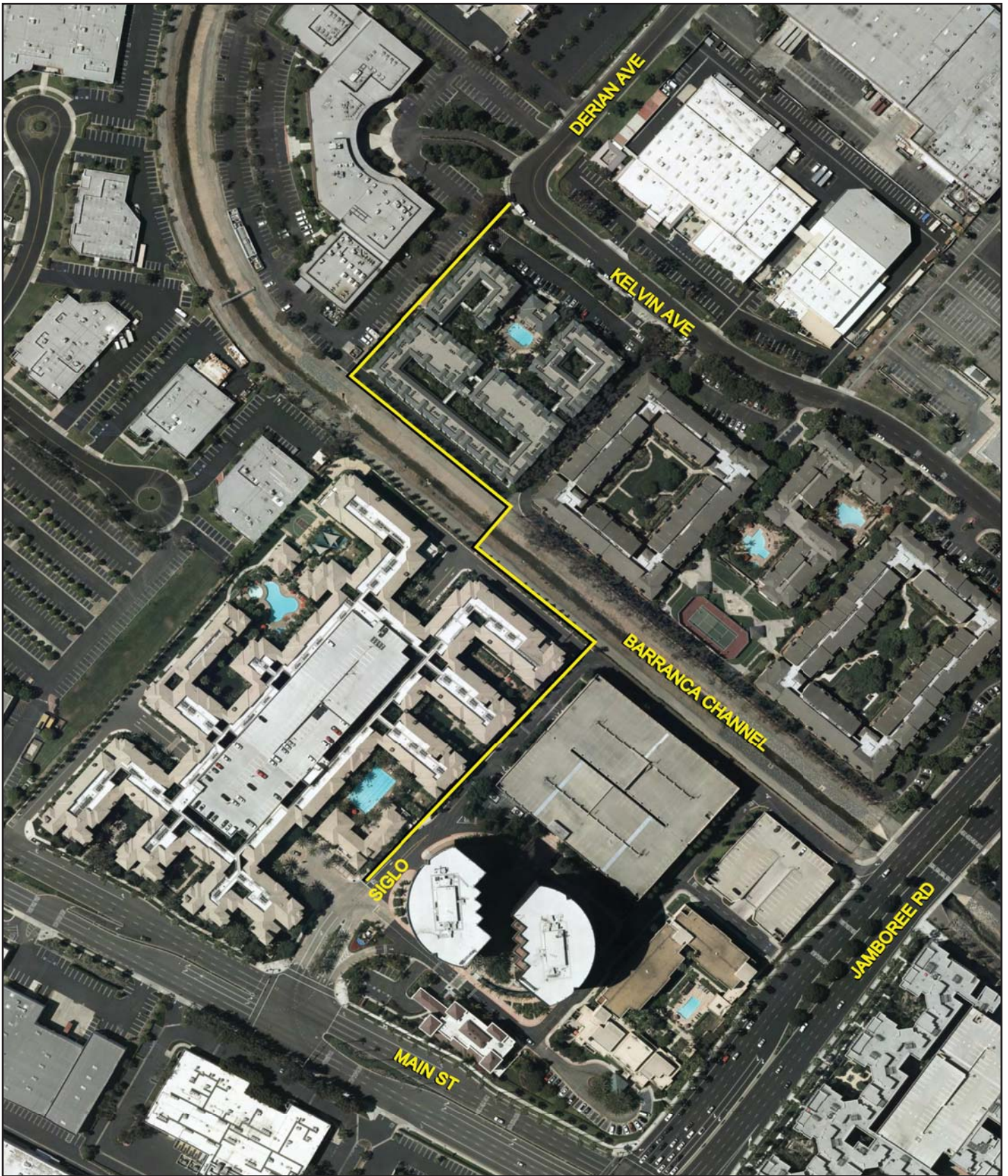
Regionally, the project site is located within the western portion of the city of Irvine (City), within the central Orange County; refer to Exhibit 1, Regional Map. Locally, the project site is located within the IBC, Planning Area 36, between the Main Street and Kelvin Avenue to the west of Jamboree Road. Barranca Channel traverses the site in a northwest-southeast direction; refer to Exhibit 2, Site Vicinity. The project site is located approximately 0.35 miles northwest of the San Diego Creek, approximately 0.35 miles northeast of San Diego Freeway (Interstate 405), and approximately 1.5 miles southeast of Costa Mesa Freeway (State Route 55).

The project site is surrounded by residential (apartment buildings), commercial (office buildings), and transportation (roadway) uses. A parking structure is located to the east of Siglo Street and south of Barranca Channel. Along Main Street, there are Main Street Village apartment homes, commercial buildings and Main Street Plaza – a small retail center that provides services such as a food court, convenient store, hair salon and dry cleaner.



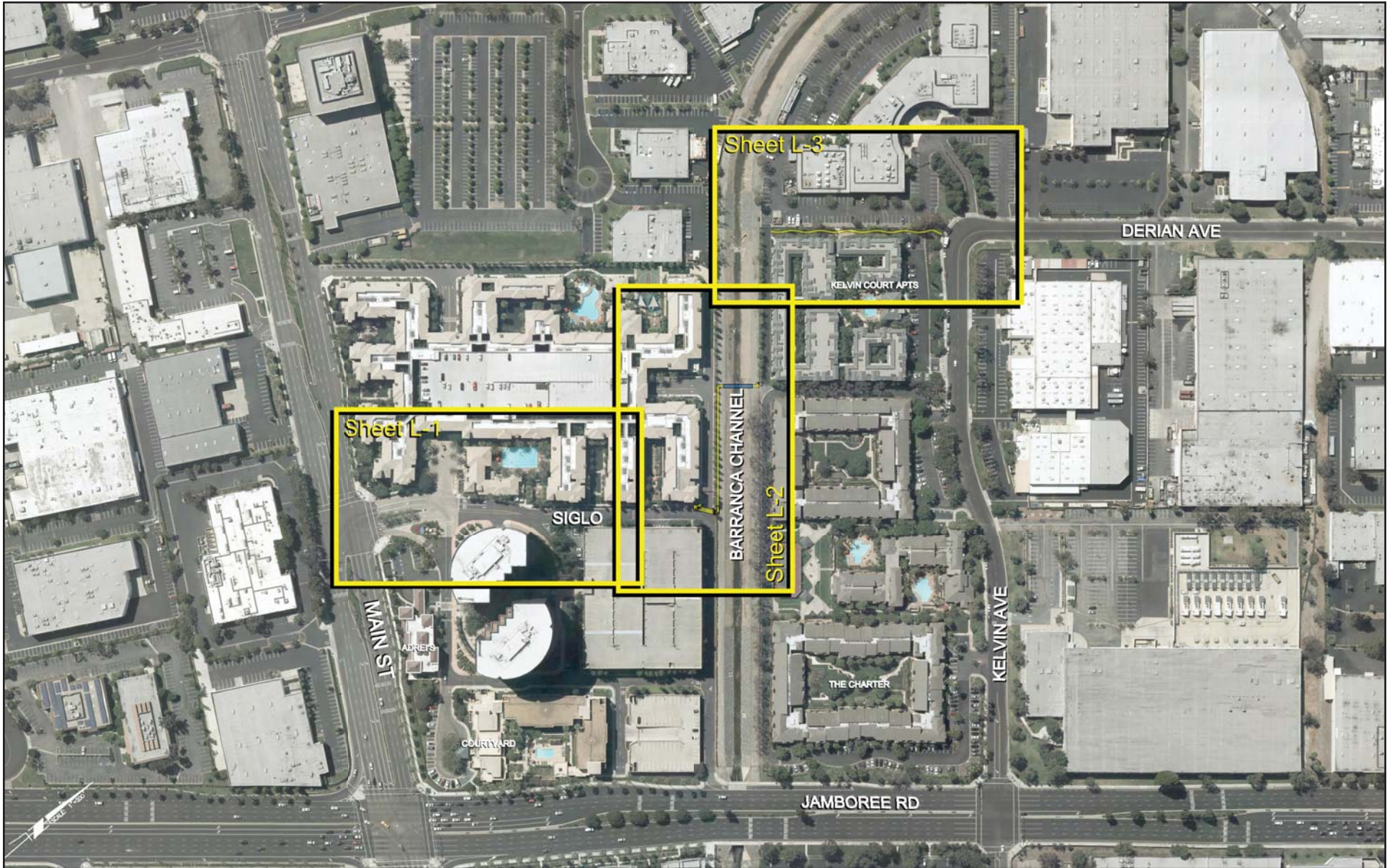
NOT TO SCALE





- Proposed Improvement

NOT TO SCALE



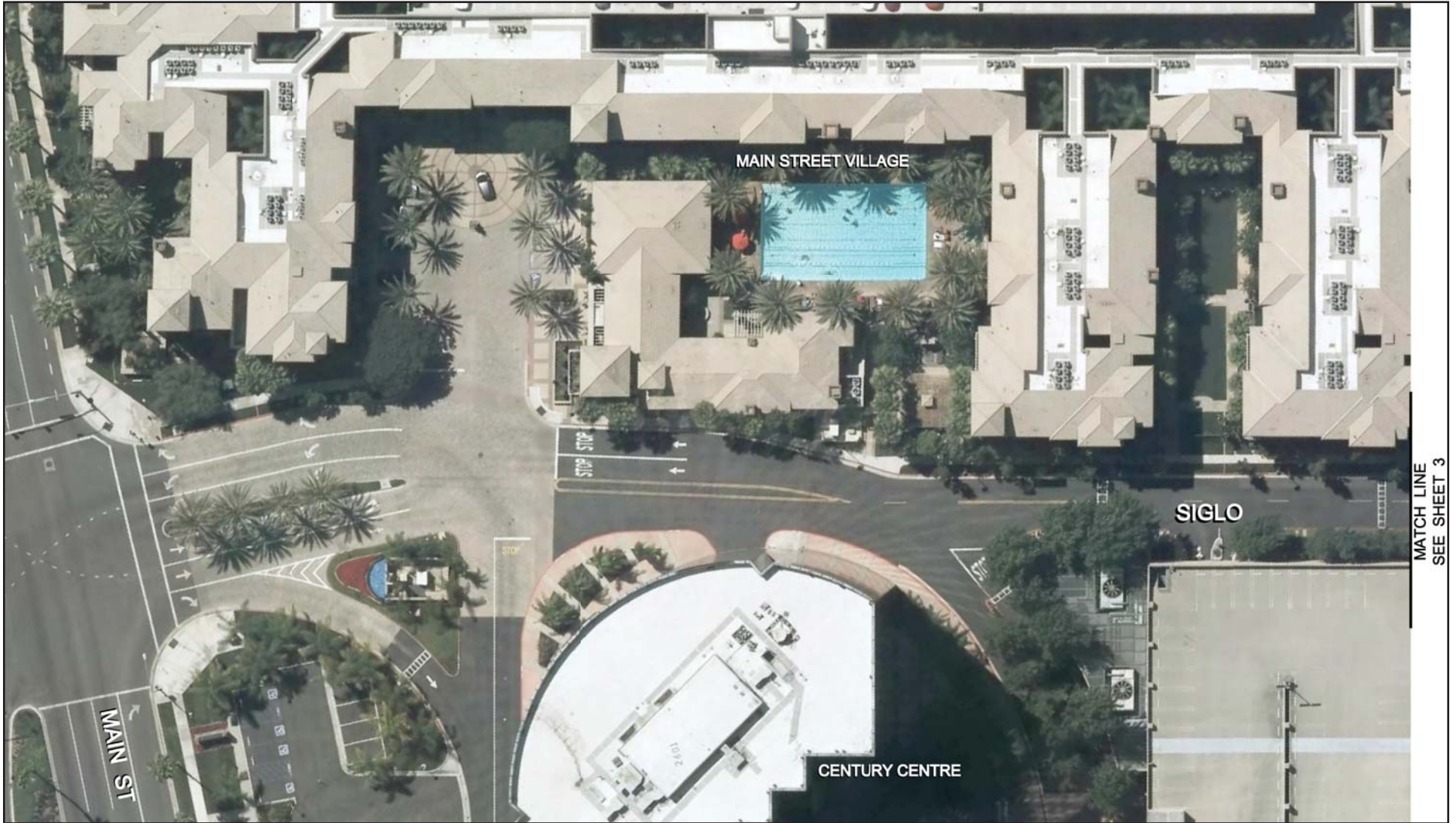
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10/14 • JN 141597

Conceptual Site Plan

Exhibit 3a
7



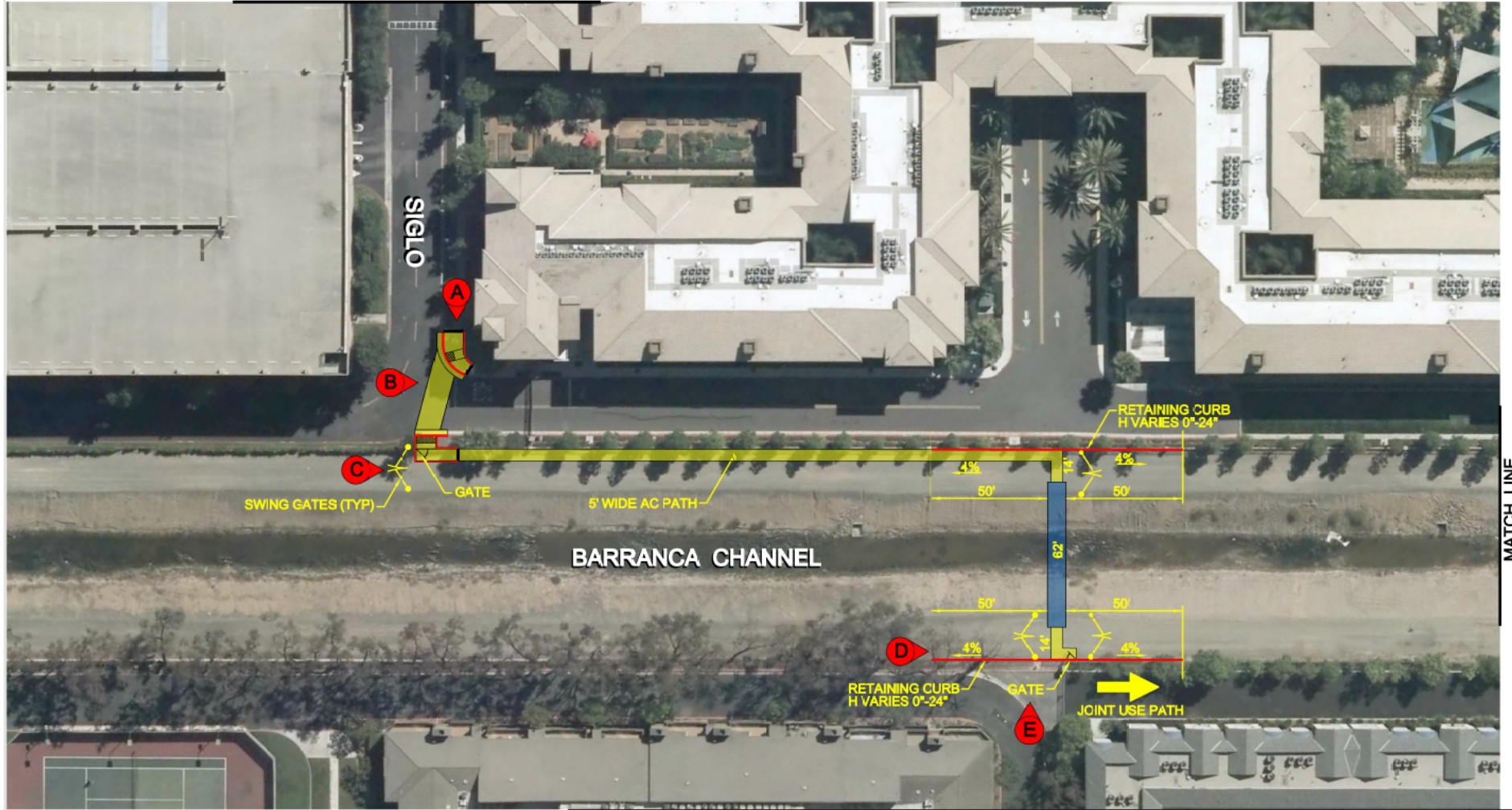
MATCH LINE
SEE SHEET 3

NOT TO SCALE



Conceptual Site Plan (Sheet L-1)

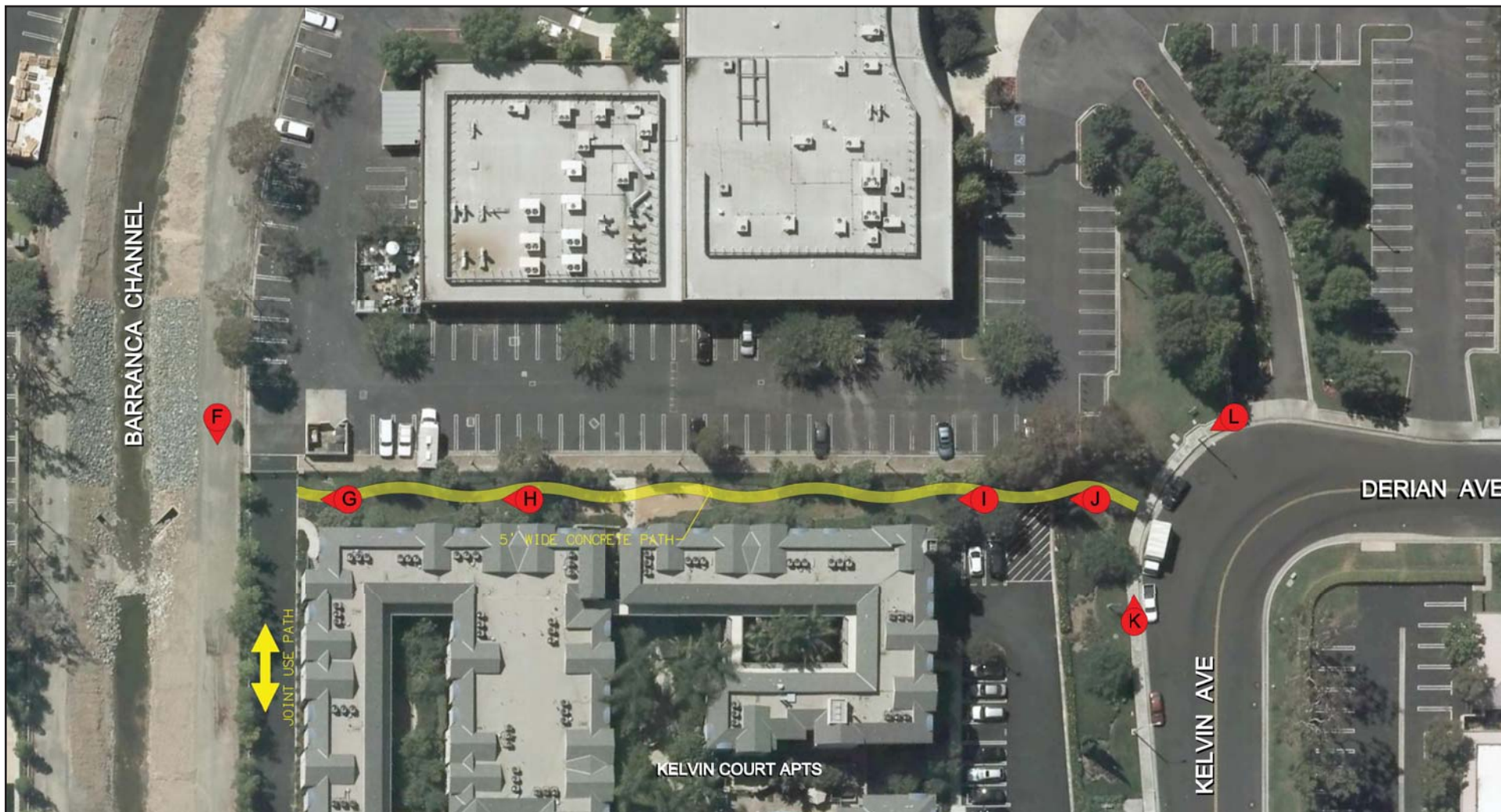
MATCH LINE
SEE SHEET 2



MATCH LINE
SEE SHEET 4

NOT TO SCALE





NOT TO SCALE



10/14 • JN 141597

Conceptual Site Plan (Sheet L-3)

Exhibit 3d
10



VIEW A



VIEW B



VIEW C



VIEW D



VIEW E



VIEW F



VIEW G



VIEW H



VIEW I



VIEW J



VIEW K



VIEW L



B. Users of the Bridge

The bridge will provide a connection between the residents and employees located north of the bridge with the Main Street Village apartment homes, commercial buildings and Main Street Plaza south of the bridge. From the north side of the bridge, the residents of the apartment homes and/or employees on Kelvin/Derian Avenue will be able to access Main Street by utilizing the bridge and walking along the sidewalk in the Main Street Village development. Using the pedestrian bridge, it is approximately 1,800' from Kelvin Court to Main Street Plaza compared to approximately 3,500' by walking along the sidewalk on Kelvin Avenue to Jamboree Road and then to Main Street. At this time, it is less likely for the bridge to be utilized by the pedestrians south of the bridge as there is no retail uses or attractions located north of the bridge.

C. Alternative Bridge Types

The Kelvin Pedestrian Bridge is proposed to span the Barranca channel in the reach between Derian Avenue and Jamboree Road. The bridge span and location have been developed taking into consideration potential future improvements to Barranca Channel. A potential future configuration of the channel to provide additional capacity would be a rectangular channel, with a width of 50 feet and a height of 12 feet with a soft or vegetated invert. The future channel would be designed to take into account the surcharge loads from the bridge footings, due to the close proximity of the footings to the channel walls.

Prefabricated Truss Bridge Alternative: Geometry and Design

The proposed bridge would span 62 feet and have a width of 8 feet. The deck is recommended to be a 4 inch thick concrete deck slab. Wooden planks are also an alternative, however in 10 years these would need to be replaced or turned. The concrete deck has a bridge lifetime guarantee. For ease of maintenance, the bridge would be made of weathering steel so that no painting is required. The bridge will have pedestrian handrails 4 feet-6 inches tall made of vertical pickets.

The depth of the concrete slab plus floor beam is 1 foot. The soffit of the bridge would be one-foot above the elevation of the channel bank. Therefore the access road would be 2 foot higher at the bridge than in other portions of the channel. The access road would need to ramp up to the bridge for 50 feet at a grade of 4%, to obtain the required elevation at the bridge. Abutment design will be completed as part of the construction documents for the bridge and pathway. A truss bridge manufacturer will be selected to provide the design of the superstructure and delivery of the bridge to the jobsite. The bridge and abutments will be designed in accordance with current Caltrans design criteria: AASHTO LRFD Design Specifications with the Caltrans Amendments, the latest edition of the Caltrans Seismic Design Criteria and the LRFD Guide Specifications for the Design of Pedestrian Bridges. In accordance with these codes, the bridge will be designed for a pedestrian live load of 90 lbs per square feet. Vehicle live loading will not be considered because of the bridge's narrow width. Bollards will be placed at either end of the bridge so that a vehicle is not able to be driven onto the bridge.

Prefabricated Truss Bridge Construction

The existing maintenance road adjacent to the existing trapezoidal channel is approximately 17 feet wide and accessed from a driveway at Jamboree Road. The bridge superstructure would be placed on a truck in one piece and delivered to the site. A crane would be placed on the maintenance road and would lift the bridge off the truck and set the bridge in place on the bridge.



abutments. This process has been verified by a truss bridge manufacturer and also through recent RBF experience of a similar construction project adjacent to a channel. In the future, to facilitate construction of the future rectangular channel, the spread footings may need to be removed. The bridge will need to be temporarily relocated during construction of the new channel. The rectangular channel can then be built, the spread footings will be reconstructed and the bridge can be replaced onto the new footings.

Alternative Bridge Type Eliminated from Further Consideration

RBF investigated a second alternative for this bridge: a cast-in-place prestressed concrete slab bridge. This type of bridge has the most efficient depth to span ratio for a concrete bridge of this span length. For a depth to span ratio of 0.03 and a 62 foot span, a structure depth of 1.86 feet would be required, or approximately 2 feet. A precast bridge would require a depth to span ratio of 0.05 and a superstructure depth of 3 feet. The slab bridge weighs more and would require a pile footing foundation, which increases the cost of the bridge. The bridge would also need to be removed for construction of the future rectangular channel. The 2 foot structure depth would require the access ramp to be 2 feet higher than at the rest of the channel, creating a greater grading impact than the truss bridge option. Therefore, for better constructability and for the most economical design, the prefabricated truss bridge is the preferred alternative.

D. Sidewalk/Trail Improvements

The project proposes to construct ancillary trail improvements on both sides of the proposed bridge. The proposed trail improvements are as follows:

- Trail Improvements South of the Proposed Bridge – These trail improvements extend along the southerly limit of the Barranca Channel maintenance road from Siglo Street to the proposed bridge location. As shown on Exhibit 3c, Conceptual Site Plan (Sheet L-2), this proposed trail would be approximately 260 feet in length and 5 feet in width and would be paved with asphalt concrete (AC). Two Americans with Disabilities Act (ADA)-accessible curb ramps and a crosswalk would be constructed to provide a pedestrian crossing to and from the Barranca Channel at Siglo Street. A gate would be installed at the entrance of the sidewalk along the Barranca Channel. Easement dedication is reflected on Tract No. 16955 in the report attachments.
- Trail Improvements North of the Proposed Bridge – These trail improvements would be constructed along the northwestern border of the Kelvin Court Apartments. The proposed sidewalk would start near the Barranca Channel and extend to the southwest corner of Kelvin Avenue and Derian Avenue, meandering through an existing landscaped area of the apartment property. As shown on Exhibit 3d, Conceptual Site Plan (Sheet L-3), this proposed meandering trail would be approximately 370 feet in length and 5 feet in width, with AC paving. The City of Irvine maintains an existing easement through this area; as such, right-of-way acquisition would not be required for these improvements.
- Between the proposed trail and the bridge, trail users would travel along an existing paved access road along the southwesterly boundary of the Kelvin Court Apartments, which would be utilized as a joint use path. In addition, a gate would be installed where the joint use path and Barranca Channel converge.



E. Utilities

Currently, no utilities exist within the limits of the proposed pedestrian bridge crossing over Barranca Channel. Nighttime lighting may be installed along the pedestrian bridge and unlit portions of the proposed sidewalk/trail improvements.

F. Landscaping & Irrigation

The proposed sidewalk between Kelvin Avenue and private road parallel to Barranca would be located along the base of the small slope at the northerly property line. The precise alignment will be determined in final design with the intent of minimize grading and disruption to existing planting, irrigation and small local planter drainage inlets. Minor modifications to these facilities are anticipated in the construction of the sidewalk.

G. Conformance with General Plan and Zoning Code Standards

The proposed pedestrian bridge overcrossing is in conformance with General Plan and Zoning Code Standards.

H. Project Schedule

Following is a schedule for the Kelvin Pedestrian Bridge Project

Task	Completion Timeframe
1. Feasibility Study	June 2015
2. Addendum EIR	June 2015
3. Final PS&E / Permits/RW Acquisition	12 months
4. Advertise and Award Construction Contract	4-5 months
5. Construction	12 months

I. Project Costs

The total project cost is approximately \$501,000 as itemized on page 6. Annual routine cleaning costs associated with the new bridge and sidewalk are:

1. Pedestrian Bridge - \$477.15
2. Sidewalk (S/O of the Bridge) - \$1,250.60
3. Sidewalk (N/O of the Bridge) - \$1,779.70

Replacement costs for the bridge if the County reconstructs the Barranca Channel in the future are:

1. Bridge Removal – Assumes stored on site access road near current location - \$10,000
2. Concrete Abutment Removal - \$5,000
3. New Abutments - \$30,000
4. Bridge Installation - \$10,000
5. 10% Mobilization + 25% Contingency = \$20,000

Total (Budget) = \$75,000



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KELVIN AVE PEDESTRIAN BRIDGE

May 2015

ITEM	DESCRIPTION	COST /UNIT	QUANTITY	COST
1	EARTHWORK			
1.1	Mobilization	LS		\$22,000
1.2	Fine Grading	2.00 /SF	5,000	10,000
	- S u b t o t a l -			\$32,000
2	STRUCTURAL SECTION			
2.1	Construct AC Path	\$5.00 /SF	1,530	\$7,650
2.2	Construct Curb & Gutter	40.00 /LF	40	1,600
2.3	Construct Retaining Curb (H=0" to 24")	80.00 /LF	220	17,600
2.4	Construct PCC Sidewalk	9.00 /SF	130	1,170
2.5	Construct Concrete Path	9.00 /SF	1,860	16,740
2.6	Construct ADA Access Ramp	6,000 /EA	2	12,000
2.7	Remove Curb & Gutter	16.00 /LF	40	640
2.8	Remove PCC Sidewalk	5.00 /SF	130	700
	- S u b t o t a l -			\$58,100
3	DRAINAGE			
3.1	Protect Manhole in Place	\$500 /EA	1	\$500
	- S u b t o t a l -			\$500
4	SPECIALTY ITEMS			
4.1	Construct Pre-Fabricated Bridge/Spreadfootings	\$300 /SF	500	\$150,000
4.2	Install Pedestrian Gate (5' Wide)	500 /EA	2	1,000
4.3	Chain Link Gate (20' wide)	2,000 /EA	4	8,000
	- S u b t o t a l -			\$159,000
5	TRAFFIC ITEMS			
5.1	Signing & Striping	LS		2,000
	- S u b t o t a l -			\$2,000
	SUBTOTAL CONSTRUCTION COST			\$252,000
6	CONTINGENCIES	25%		63,000
	TOTAL CONSTRUCTION COST			\$315,000
7	RIGHT OF WAY			
7.1	Permanent Easement	\$4 /SF	2,026	\$8,100
7.2	Appraisal	LS		8,000
7.3	Initial Site Assessment (ISA)	LS		2,000
7.4	Right of Way Administration (Legal Description)	LS		20,000
	- S u b t o t a l -			\$38,000
8	PROJECT DEVELOPMENT COSTS			
8.1	Design Engineering/Administration Costs	LS		75,000
8.2	Construction Engineering/Administration Costs	25%		73,000
	- S u b t o t a l -			\$148,000
	TOTAL PROJECT COST			\$501,000

H:\pdata\141597\Cales\Cost Estimates\141597_Kelvin Ped Bridge May2015.xlsx



V. AGREEMENTS/PERMITS

The City will need to obtain surface right easement with conditions from OCFCD. A cooperative agreement will be required between OCFCD and the City. The terms of the agreement regarding liability and maintenance responsibilities and other issues will be included. Improvement plans will be processed through Orange County Property Permit for review and approval.

The area of AC trail impervious area within OCFCD right-of-way is approximately 1,600 square feet. The area of impervious concrete sidewalk between Kelvin Avenue and Barranca Channel is approximately 1,900 square feet. The total new impervious area constructed by the project will be 3,500 square feet and will not require preparation of a Water Quality Management Plan (WQMP).

VI. RIGHT OF WAY

No new right of way is required for the project.

VII. ENVIRONMENTAL CLEARANCE

An Addendum to the IBC Vision Plan and Mixed Use Zoning Code Final Environmental Impact Report (EIR) which was certified by the Irvine City Council on July 13, 2010 (SCH No. 2007011024) (referred to hereafter as the "IBC EIR") was prepared for the project. The documents serve as the environmental review of the proposed Kelvin Avenue Pedestrian Bridge Project, as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 CCR Section 15000 et. Seq. (CEQA Guidelines), and the City of Irvine procedures for CEQA Implementation.

Based on the Environmental Checklist and supporting environmental analysis, the proposed project would not result in any new significant impacts that were not previously addressed in the IBC EIR, nor are there any substantial increases in the severity of any previously identified environmental impacts. The scope of the installation of a prefabricated pedestrian bridge over the Barranca Channel and trail construction/modification do not result in any new impacts that are not already covered in the IBC EIR, and none of the conditions set forth in Section 15162 of the CEQA Guidelines which would otherwise require preparation of a Subsequent or Supplemental EIR are met in this instance.

VIII. CONCLUSION

Based on the findings of this feasibility report, the bridge is estimated to cost \$501,000 to design and construct. Annual maintenance cost is estimated to be \$3,507. In the future when the County of Orange reconstructs the Barranca Channel the cost to remove, store on-site and replace the bridge would be approximately \$75,000. At this time, the County does not have any programmed channel improvements at the proposed bridge location. Although the bridge is feasible to construct, the potential users of the bridge would likely be limited to the adjacent properties; specifically, the pedestrians from the north side of the bridge heading south on the bridge to access the retail center on Main Street.



The proposed project is consistent with the Irvine Business Complex (IBC) Vision Plan. The existing street network and large blocks result in restricted pedestrian connectivity. The proposed pedestrian bridge would improve connectivity consistent with Objective N-3 Connectivity Policy (c): Provide pedestrian linkages that facilitate improved resident access to local services, recreation facilities, the City's trail network and transit access.

The Kelvin Apartments Conditional Use Permit Letter in Attachment 1 states in Items 4 and 5:

4) *Commencement of construction of the pedestrian bridge shall occur no later than eight years from the date of this signed letter by both parties.*

5) *If commencement of the pedestrian bridge does not occur within the agreed time frame, the full amount of funds, plus interest, shall be refunded to Alta Pacific, LLC through Wood Partners' Newport Beach office.*

The letter agreement was executed on July 24, 2008. Based upon the agreement, construction must commence by July 24, 2016.

IX. Attachments

Attachment 1 – Kelvin Apartments Conditional Use Permit Letter Agreement

Attachment 2 – Initial Pedestrian Bridge Concept and County Review Comments

Attachment 3 – Public Access Easements

Attachment 4 – Preliminary Foundation Report

Attachment 5 – Kelvin Avenue Pedestrian Bridge – Barranca Storm Channel Basis of Design Report

Attachment 6 – County Plan Check Comments and Responses

Attachment 1 – Kelvin Apartments Conditional Use Permit Letter Agreement



July 18, 2008

Mr. Kyle Woodley
c/o Wood Partners
3991 MacArthur Blvd Suite 350
Newport Beach, CA 92660

Subject: Kelvin Apartments - Condition E.10.b.2, Conditional Use Permit 47198-CPU; Letter Agreement

Dear Mr. Woodley:

This letter is in response to your correspondence of June 19, 2008, in which you expressed the desire to satisfy the requirements of a condition of approval that was placed on your project located at 2552 Kelvin Avenue in the Irvine Business Complex. As you know, the subject condition requires the construction of a pedestrian bridge across the Barranca Flood Control Channel connecting your site to the Main Street Village Apartments. The development of Kelvin Apartments was approved through Conditional Use Permit 47198-CPU by adoption of City Council Resolution 03-50.

Condition E.10.b.2 reads as follows:

"Prior to the issuance of building permits, the applicant shall demonstrate to the Director of Community Development that the Orange County Flood Control District (OCFCD) and owner/assignee of the MetLife property have consented to construction of a pedestrian bridge over the Barranca Channel linking the subject site with the future MetLife residential apartment community. The applicant shall be responsible for all costs to acquire consent, design and construct the bridge, and for ongoing maintenance. The applicant shall post an appropriate bond to guarantee construction of the bridge prior to the issuance of building permits for any structures on the site. The construction of the bridge shall be complete prior to the issuance of the first certificate of use and occupancy."

In your June 19, 2008 letter, Alta Pacific, LLC ("Wood Partners") proposes to provide the City of Irvine funding for the construction of the pedestrian bridge as a means of fully satisfying its obligations pursuant to this condition of approval. We have reviewed Wood Partners' proposal and agree that such funding will satisfy the terms of this condition but that additional details concerning the proposal need to be included.

Specifically, we propose that Condition E.10.b.2 of City Council Resolution 03-50 is satisfied subject to the following terms:

- 1) Wood Partners shall provide the City of Irvine payment in the amount of \$184,000 towards the cost of constructing the pedestrian bridge as required in Condition E.10.b.2. The money will be deposited into an interest-bearing account and shall be used only towards the pedestrian bridge across the Barranca Flood Control Channel connecting the Kelvin Apartments to the Main Street Village Apartments.
- 2) Wood Partners shall grant to the City, without costs, the necessary connections and easements on their property for public access to the pedestrian bridge including the necessary landings on their property prior to commencement of bridge construction. Since engineering and project design has yet to be undertaken, the exact locations of the bridge connection from the street and fire lane bridge landing will be determined at a later time. The public access easement areas shall remain unobstructed and occur within the 30-foot westerly boundaries and continue along the fire lane easterly. The locations of these areas are shown in "Exhibit A" as denoted by the dashed lines.
- 3) The City of Irvine shall be responsible for design, construction, and securing all public easements and landings between Main Street Village Apartments and the Orange County Flood Control District associated with the pedestrian bridge.
- 4) Commencement of construction of the pedestrian bridge shall occur no later than eight years from the date of this signed letter by both parties.
- 5) If commencement of the pedestrian bridge does not occur within the agreed time frame, the full amount of the funds, plus interest, shall be refunded to Alta Pacific, LLC through Wood Partners' Newport Beach office.
- 6) In the event that the final amount associated with the pedestrian bridge is less than \$184,000 plus interest, the remaining balance will be refunded to Alta Pacific, LLC through Wood Partners' Newport Beach office upon completion of the bridge. The final amount includes all costs associated with the pedestrian bridge which includes, but is not limited to, construction of the bridge and necessary landings, gate/fence installations, as well as securing all easements. In the event that the cost of the pedestrian bridge exceeds \$184,000, Wood Partners shall have no further obligation to fund such additional amount.
- 7) Wood Partners shall sign and return a copy of this letter with a check to the City of Irvine in the amount of \$184,000. A signed copy of this letter by both parties will signify Wood Partners' agreement to the terms listed herein regarding the full satisfaction of Condition E.10.b.2 of City Council Resolution 03-50.
- 8) This letter agreement shall be binding on the successors and assignees of Wood Partners and inure to their benefit.

If you have any questions regarding this letter, please contact Tim Gehrich, Manager of Development Services at (949) 724-6363.

Attachment:

1. Exhibit A: Easement Locations

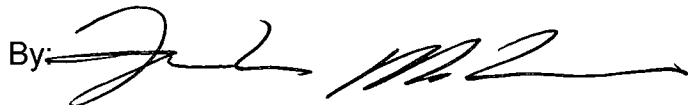
Agreed as set forth above:

Dated: 7/22/08 "WOOD PARTNERS"

ALTA PACIFIC, LLC, a Georgia limited liability company

By: Wood Alta Pacific, LLC, a Georgia limited liability company, Its Manager

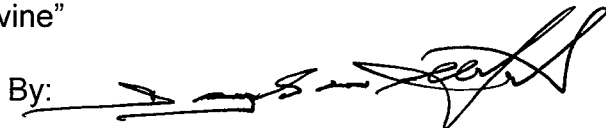
By: WP South Corporation, Inc., a Georgia corporation, Its Manager

By: 

Name: Frank B. Middleton

Title: Vice President

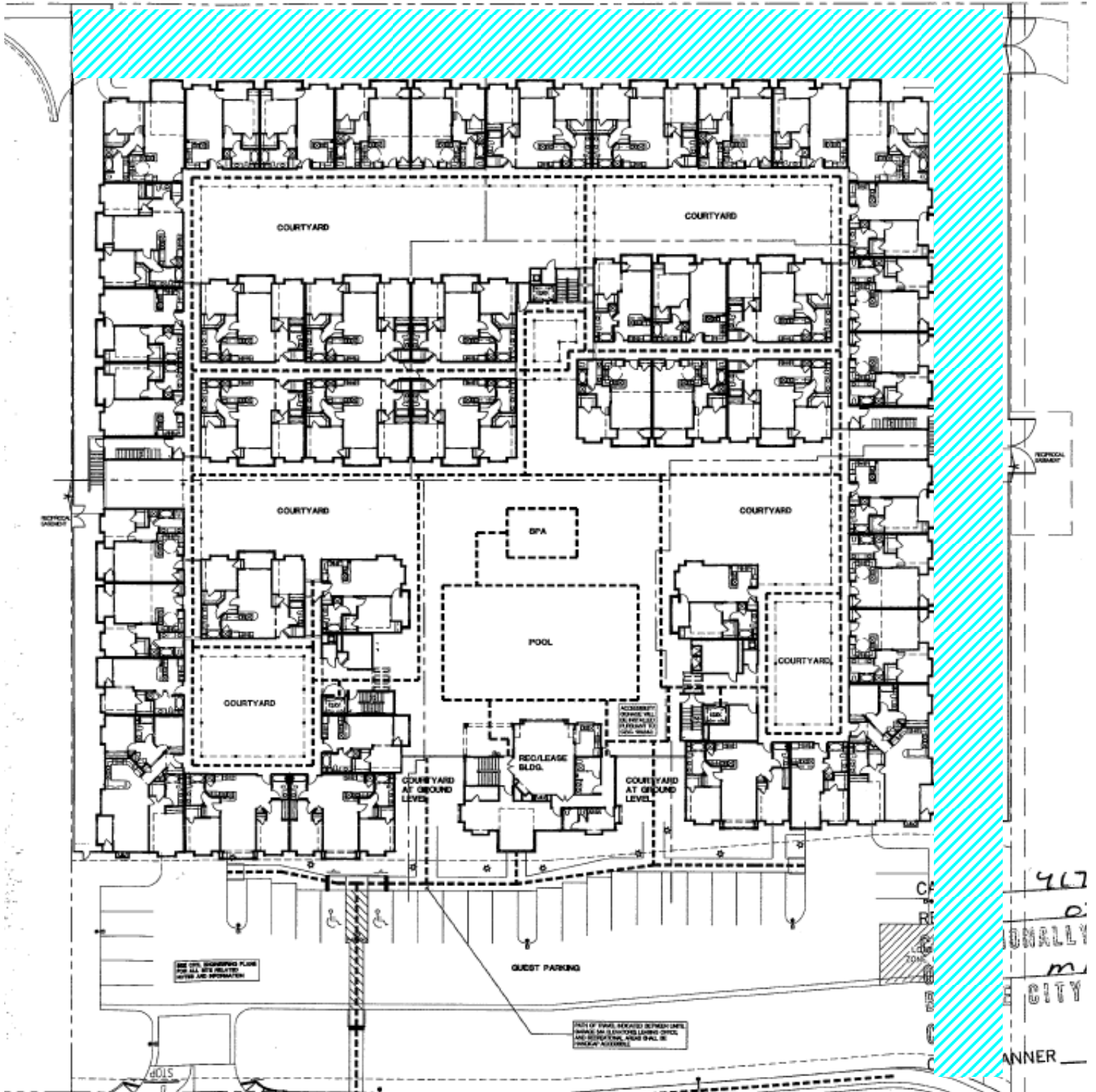
Dated: 7/24/08 "City of Irvine"

By: 

Name: Douglas Williford, AICP

Title: Director of Community Development

Exhibit A: Easement Locations



Attachment 2 – Initial Pedestrian Bridge Concept and County Review Comments

Date: 12/10/2012

City of Irvine
One Civic Center Plaza
P. O. Box 19575
Irvine, CA. 92623

Attn.: Lana Weiss

Re: Plan Check # 1 Permit No. 2012-00694

Dear Mrs. Weiss:

Your application to construct and maintain a bridge over Barranca Channel (F09), 900-ft west of Jamboree Road and 400-ft south of Kelvin Avenue, Irvine within a portion of Orange County Flood Control District's Barranca Channel (F09) right-of-way was submitted for review within the Orange County Public Works (OC Public Works). The following comments are being provided:

OC Inspection:

1. Provide total of (2) additional swing gates on south west and north east on drive ramps.
2. Please find attached redlined plans.

Operation and Maintenance:

O&M is not opposed to proposal of a pedestrian bridge over Barranca Channel (F09). However, O&M submits the following comments, concerns, and recommendations:

1. Permittee to provide full detailed plans to fully evaluate the impact to OCFCD Facility.

2. Permittee shall enter into and/or amend current "Agreement" with OCFCD/County of Orange.
3. Permittee shall incorporate O&M plan to keep debris, trash, and graffiti at a minimum to non-existence.
4. Bridge deck shall be out of the 100 year flow elevation and a minimum of 12' (FT) above design elevation.
5. Pedestrian surface shall be AC paving or better. This shall include both sides of bridge ramping as shown on submitted proposal.
6. Guard Cable Fencing per OC Public Works Standard Plan 1413 shall be provided at top of channel for public safety.
7. Please provide construction plans and details in next submittal for evaluation and considerations. Return for further review.

Flood Design:

Flood Programs has reviewed permit 2012-00694 #1 and have the following comments:

1. The City's proposal to place a bridge over Barranca Channel is feasible. However, when more detailed drawings are submitted for permit review, the City needs to work with OCFCD to obtain surface right easement with conditions from OCFCD. A cooperative agreement maybe needed between OCFCD and the City. The terms of the agreement regarding liability and maintenance responsibilities and other issues will be included.
2. Permittee needs to submit improvement plans to Orange County Property Permit for review. After the City submits plans with more details for a permit, additional comments will be provided to the City.
3. The improvement plans will need to meet many requirements. The following are general conditions and more will be provided after detailed plans are submitted:
 - a. No piers are allowed within the channel and no changes or modifications are allowed to existing channel.
 - b. The soffit of proposed bridge must be equal to, or higher than the top of existing channel and provide a minimum 12' vertical clearance.

- c. OCFCD operation and maintenance may provide requirements to facilitate their access along the channel that may include gates and fencing restricting public access to specific areas within OCFCD right-of-way.
 - d. Operation and maintenance of proposed bridge will be by the Permittee at its own costs and this statement should be shown on the first page of improvement plans.
4. Please note that the purpose of Flood Channels is for flood control and public safety. If any of Permittee's improvements are disturbed, damaged or removed by OCFCD during the course of OCFCD's operations, maintenance, repair, improvements, restoring, or enlargement of OCFCD's facilities within, upon, over or under OCFCD's ROW, Permittee shall be responsible for the work and cost for replacing, repairing, restoring or removing Permittee's improvements.

Watersheds / Environ. Res.:

We recommend the following conditions:

1. The following should be included as NPDES notes on project plan construction Sheets:
 - Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.
 - Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to the streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
 - Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
 - Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.
 - All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
 - At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed of in trash or recycle bins.

- Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit or the statewide General Construction Stormwater Permit.

Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives, and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing.

During construction, disposal of such materials should occur in a specified and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.

- Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into construction sites is prohibited. Discharging of contaminated soils via surface erosion is also prohibited. Discharging of non - contaminated groundwater produced by dewatering shall comply with those National Pollutant Discharge Elimination System (NPDES) Permit Orders No. R8-2009-0045 and R8-2007-0041, NPDES general discharge permits for groundwater in the San Diego Creek / Newport Bay Watershed, of the Santa Ana Regional Water Quality Control Board (RWQCB). Any indication or evidence of water quality that does not meet required standards will be reported to OC Public Works / Environmental Resources.

2. Any spillage of fuel, oil or hazardous materials from construction materials, equipment or vehicles must be immediately and properly cleaned up and removed from the OCFCD right-of-way. For spills which have caused or have the potential to cause any environmental impact, notification must be immediately made to OC Public Works / Environmental Resources (877-89-SPILL) for assessment of appropriate corrective action. Contaminated soil, sand or material and hazardous wastes generated from the cleanup must be disposed of by approved methods. For all emergencies, call 911.

Permittee assumes full responsibility for costs to investigate extent of contamination, cleanup, waste removal and implementation of an approved

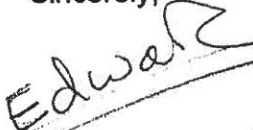
remedial action plan for the release of any wastes or hazardous materials that result in soil, surface water and groundwater contamination.

3. To ensure that post-construction contribution of polluted runoff to OCFCD right-of-way is minimized and prevented through implementation of Best Management Practices (BMPs), permit applicant shall provide a proposed Water Quality Plan (WQP) for the proposed public project, consistent with requirements of the 4th Term Municipal Storm- water NPDES Permit to which the County, District and City are all parties. Please submit WQP to OC Public Works / Environmental Resources, Attn: Jim Swanek, 2301 North Glassell Street, Orange, California 92865.

Please prepare comment response letter with next submittal. Once you have completed your revisions, please submit revised plans which have the proposed permit area clearly highlighted to County Property Permits for further processing.

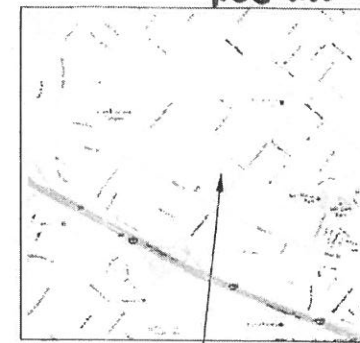
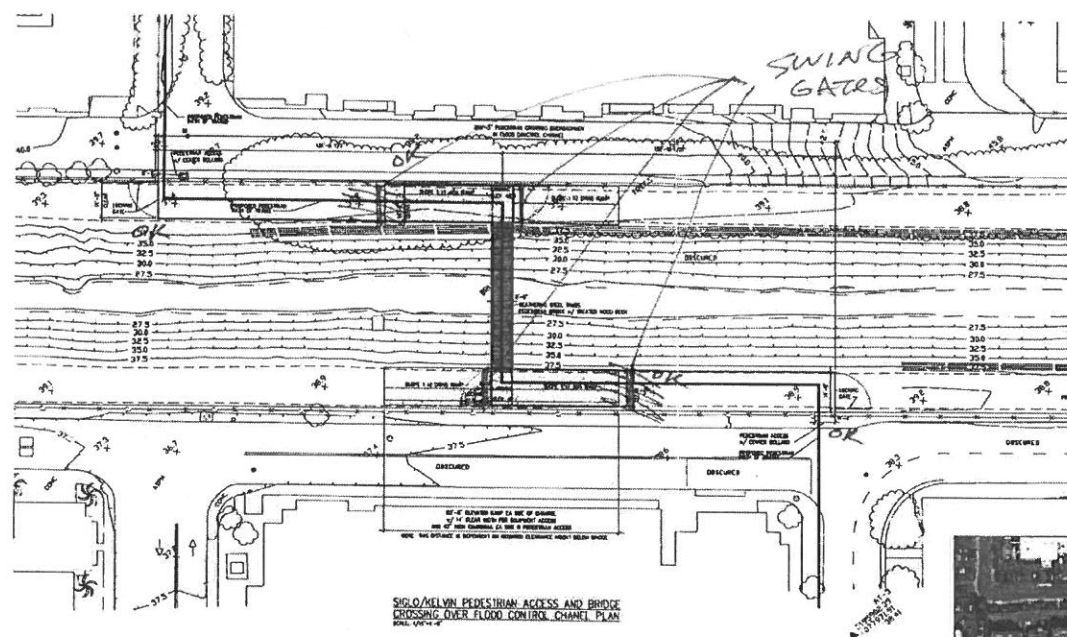
If you have any questions, please contact me directly at (714) 667-8842.

Sincerely,

A handwritten signature in black ink that reads "Edward". The signature is stylized with a long, sweeping underline that extends to the right.

Edward Shahid
County Property Permits

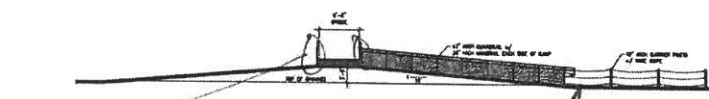
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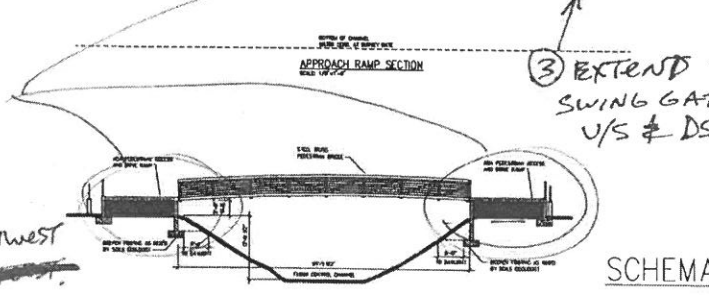
PROJECT SITE
VICINITY MAP



SITE MAP



Bridge Crossing

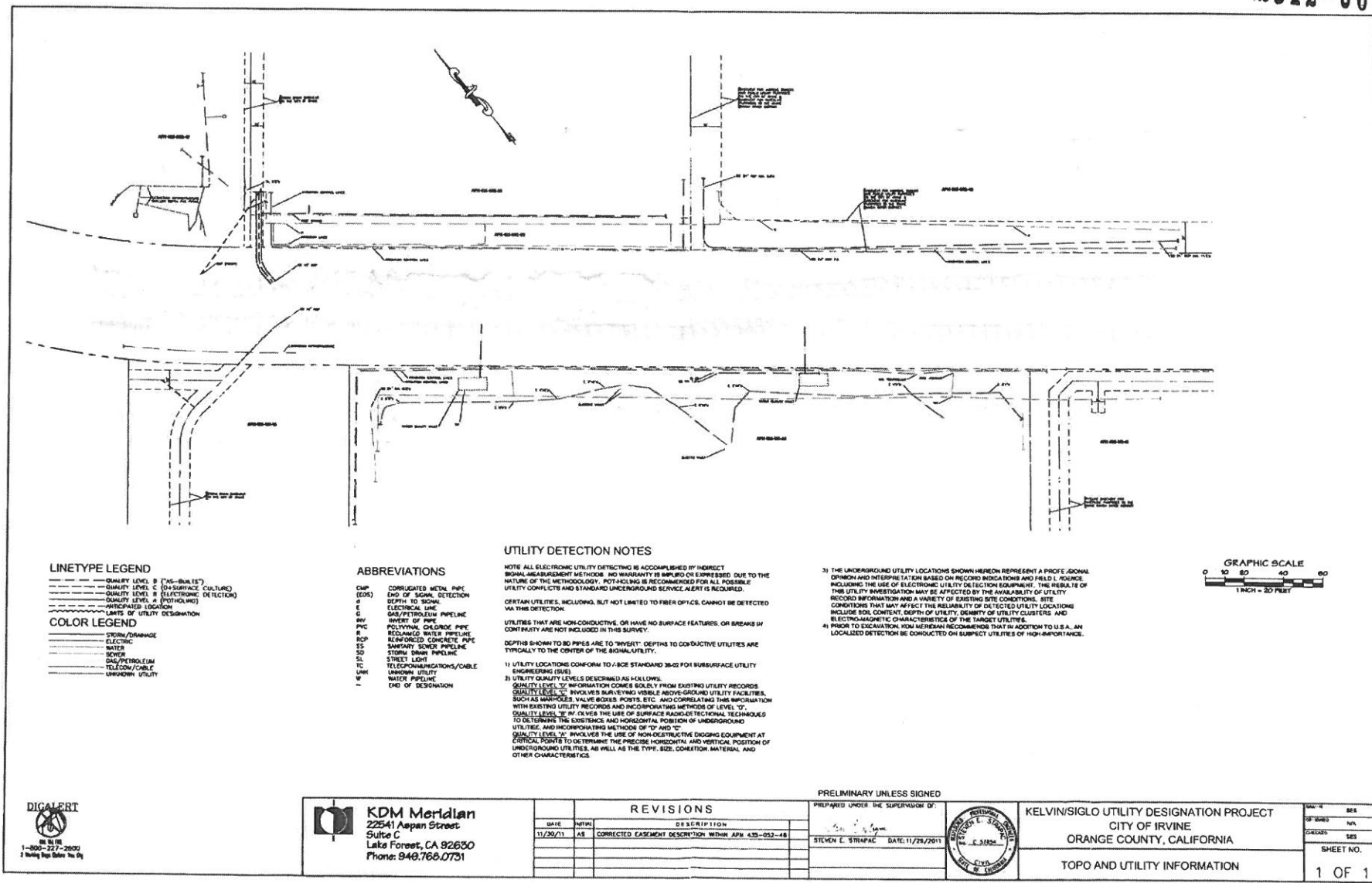


Siglo Ped. Crossing

SCHEMATIC DESIGN PHASE



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Attachment 3 – Public Access Easements

SHEET 1 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES

BEING A SUBDIVISION OF A PORTION OF PARCEL 2 OF PARCEL MAP FILED IN
BOOK 43, PAGE 6 OF PARCEL MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA

KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30560
JULY 2011

ACCEPTED AND FILED AT THE
REQUEST OF

CHICAGO TITLE COMPANY

DATE December 30, 2013

TIME 3:35 PM FEE \$ 20.00

INSTRUMENT NO. 2013000714055

BOOK 922 PAGE 21-28 N/M

HUGH NGUYEN
COUNTY CLERK-RECORDER

BY [Signature]
DEPUTY

OWNERSHIP CERTIFICATE:

WE, THE UNDERSIGNED, BEING ALL PARTIES HAVING ANY RECORD TITLE INTEREST IN THE LAND COVERED BY THIS MAP, DO HEREBY CONSENT TO THE PREPARATION AND RECORDATION OF SAID MAP, AS SHOWN WITHIN THE DISTINCTIVE BORDER LINE.

WE HEREBY IRREVOCABLY OFFER TO DEDICATE AN EASEMENT FOR PUBLIC ACCESS PURPOSES TO THE CITY OF IRVINE AS SHOWN ON THIS MAP.

WE ALSO HEREBY DEDICATE TO THE CITY OF IRVINE:

EASEMENTS FOR EMERGENCY INGRESS, EGRESS AND FIRE PROTECTION ACCESS PURPOSES AS SHOWN ON THIS MAP.

EASEMENT FOR SIDEWALK AND ACCESS PURPOSES AS SHOWN ON THIS MAP.

MCP MAIN STREET VILLAGE, LLC, A DELAWARE LIMITED LIABILITY COMPANY, RECORD OWNER

BY: METLIFE CORE PROPERTY HOLDINGS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, ITS SOLE MEMBER

BY: METLIFE CORE PROPERTY REIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY, ITS SOLE MEMBER

BY: METLIFE CORE PROPERTY FUND, LP, A DELAWARE LIMITED PARTNERSHIP, ITS MANAGING MEMBER

BY: METLIFE CORE PROPERTY FUND GP, LLC, A DELAWARE LIMITED LIABILITY COMPANY, ITS GENERAL PARTNER

BY: [Signature]
NAME: Jacqueline A. Dennis
TITLE: Regional Director

NOTARY ACKNOWLEDGMENT:

STATE OF CALIFORNIA }
COUNTY OF Los Angeles } SS

ON December 5, 2013 BEFORE ME, D. K. Dantic
PERSONALLY APPEARED Jacqueline A. Dennis
WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME IN HIS/HER AUTHORIZED CAPACITY, AND THAT BY HIS/HER SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND:

SIGNATURE [Signature]
NOTARY PUBLIC IN AND FOR SAID STATE.

MY PRINCIPAL PLACE OF BUSINESS IS IN
Los Angeles COUNTY.

D. K. Dantic
NAME PRINTED

MY COMMISSION EXPIRES June 21, 2017
COMMISSION #: 2026087

COUNTY SURVEYOR'S STATEMENT:

THIS MAP IS ACCEPTABLE FOR RECORDATION THIS 27th DAY OF December, 2013

KEVIN R. HILLS, COUNTY SURVEYOR
L.S. 8617, EXPIRATION DATE: 12-31-

BY: [Signature], DEPUTY

CRAG S. WEHMAN, CHIEF DEPUTY SURVEYOR
P.L.S. 6131, EXPIRATION DATE: 3-31-14



COUNTY TREASURER-TAX COLLECTOR'S CERTIFICATE:

STATE OF CALIFORNIA }
COUNTY OF ORANGE } SS

I HEREBY CERTIFY THAT ACCORDING TO THE RECORDS OF MY OFFICE THERE ARE NO LIENS AGAINST THE LAND COVERED BY THIS MAP OR ANY PART THEREOF FOR UNPAID STATE, COUNTY, MUNICIPAL OR LOCAL TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES.

ALL RECORDS OF THE COUNTY OF ORANGE, CALIFORNIA, HAVE BEEN SEARCHED AND NO LIENS AGAINST THE LAND COVERED BY THIS MAP OR ANY PART THEREOF FOR UNPAID STATE, COUNTY, MUNICIPAL OR LOCAL TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES HAVE BEEN FOUND.

DATED THIS 26th DAY OF December, 2013

SHARI L. FREIDENRICH
COUNTY TREASURER-TAX COLLECTOR

BY: [Signature]
DEPUTY TREASURER-TAX COLLECTOR

ENGINEER'S STATEMENT:

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF MCP MAIN STREET VILLAGE, LLC, A DELAWARE LIMITED LIABILITY COMPANY IN NOVEMBER 2013. I HEREBY STATE THAT ALL MONUMENTS ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED; AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. I HEREBY STATE THAT THIS FINAL MAP SUBSTANTIALLY CONFORMS TO THE CONDITIONALLY APPROVED TENTATIVE MAP.

[Signature] 12/4/13
JAMES H. KAWAMURA DATE
R.C.E. 30560
MY LICENSE EXPIRES: 3-31-14



CITY ENGINEER'S CERTIFICATE:

THIS MAP CONFORMS WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE. I HAVE EXAMINED THIS MAP AND I AM SATISFIED IT IS TECHNICALLY CORRECT. THE SUBDIVISION AS SHOWN IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE MAP.

IN ADDITION:

ON BEHALF OF THE CITY COUNCIL, PURSUANT TO SECTION 5-5-704 OF THE IRVINE MUNICIPAL CODE, I HEREBY APPROVE THIS MAP.

ON BEHALF OF THE CITY OF IRVINE, I DID NOT ACCEPT AT THIS TIME, THE IRREVOCABLE OFFER OF DEDICATION FOR THE EASEMENT FOR PUBLIC ACCESS PURPOSES.

ON BEHALF OF THE CITY OF IRVINE, I HEREBY ACCEPT THE EASEMENTS FOR EMERGENCY INGRESS, EGRESS AND FIRE PROTECTION ACCESS PURPOSES, TOGETHER WITH THE EASEMENT FOR SIDEWALK AND ACCESS PURPOSES AS DEDICATED.

ON BEHALF OF THE CITY COUNCIL, PURSUANT TO GOVERNMENT CODE SECTIONS 66409.202 AND 66434(a), I HEREBY ABANDON THE EASEMENT WITHIN THE BOUNDARY OF THIS MAP FOR PEDESTRIAN SIDEWALK INGRESS AND EGRESS PURPOSES PER INSTRUMENT NO. 2000700048839 OF OFFICIAL RECORDS, NOT SHOWN HEREON.

PURSUANT TO THE PROVISIONS OF GOVERNMENT CODE SECTION 66436(c)(3)(A), I HEREBY APPROVE THIS MAP.

DATED THIS 13th DAY OF NOVEMBER 2013

[Signature]
MARK L. CARROLL, R.C.E. 31016
CITY ENGINEER, CITY OF IRVINE
REGISTRATION EXPIRES 12-31-14



SIGNATURE OMISSIONS:

PURSUANT TO THE PROVISIONS OF SECTION 66436 (c) (3) OF THE SUBDIVISION MAP ACT THE FOLLOWING SIGNATURES HAVE BEEN OMITTED:

1. AN AVIGATION EASEMENT TO THE COUNTY OF ORANGE FILED IN BOOK 6865, PAGE 721 OF OFFICIAL RECORDS. BLANKET EASEMENT NOT SHOWN.
2. AN EASEMENT FOR CLEAR AREA YARD IN FAVOR OF THE METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION PER INSTRUMENT NO. 85-353822 OF OFFICIAL RECORDS, AS CONVEYED IN THE DEED PER INSTRUMENT NO. 86-149146 OF OFFICIAL RECORDS.
3. AN EASEMENT FOR SANITARY SEWER PURPOSES IN FAVOR OF THE METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION PER INSTRUMENT NO. 86-032535 OF OFFICIAL RECORDS, AS CONVEYED IN THE DEED PER INSTRUMENT NO. 86-149146 OF OFFICIAL RECORDS.
4. AN EASEMENT FOR STREET SIGNALIZATION MAINTENANCE IN FAVOR OF THE CITY OF IRVINE PER INSTRUMENT NO. 19990124672 OF OFFICIAL RECORDS.
5. AN EASEMENT FOR SIGLO DRIVEWAY AND ALLEY ACCESS IN FAVOR OF CENTURY CENTRE, LLC, A NEVADA LIMITED LIABILITY COMPANY AND METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION PER INSTRUMENT NO. 2006000677922 OF OFFICIAL RECORDS. AN AMENDMENT TO EASEMENT AGREEMENT RECORDED SEPTEMBER 28, 2012 AS INSTRUMENT NO. 2012000574631 OF OFFICIAL RECORDS.
6. AN EASEMENT FOR FIRE ROAD ACCESS PURPOSES IN FAVOR OF THE CITY OF IRVINE PER INSTRUMENT NO. 2007000248838 OF OFFICIAL RECORDS.
7. AN EASEMENT FOR PEDESTRIAN SIDEWALK INGRESS AND EGRESS PURPOSES IN FAVOR OF THE CITY OF IRVINE PER INSTRUMENT NO. 2007000248839 OF OFFICIAL RECORDS.
8. AN EASEMENT FOR RIGHT OF WAY PURPOSES IN FAVOR OF THE CITY OF IRVINE PER INSTRUMENT NO. 2007000248840 OF OFFICIAL RECORDS.
9. AN EASEMENT FOR CONSTRUCTION, OPERATION, AND MAINTENANCE OF TELECOMMUNICATION FACILITIES IN FAVOR OF COXCOM, INC., A DELAWARE CORPORATION PER INSTRUMENT NO. 2007000385385 OF OFFICIAL RECORDS. BLANKET EASEMENT NOT SHOWN.
10. AN EASEMENT FOR CONSTRUCTION, OPERATION, AND MAINTENANCE OF TELECOMMUNICATION FACILITIES IN FAVOR OF COXCOM, INC., A DELAWARE CORPORATION PER INSTRUMENT NO. 2007000385386 OF OFFICIAL RECORDS. BLANKET EASEMENT NOT SHOWN.
11. AN EASEMENT FOR PIPELINES AND CONDUIT PURPOSES IN FAVOR OF SOUTHERN CALIFORNIA GAS COMPANY, A CALIFORNIA CORPORATION PER INSTRUMENT NO. 2007000399118 OF OFFICIAL RECORDS. NOT PLOTTABLE PER RECORD DESCRIPTION.
12. AN EASEMENT FOR PIPELINES AND CONDUIT PURPOSES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CALIFORNIA CORPORATION PER INSTRUMENT NO. 2007000546833 OF OFFICIAL RECORDS.
13. AN EASEMENT FOR WATER PIPELINES AND ACCESS IN FAVOR OF IRVINE RANCH WATER DISTRICT PER INSTRUMENT NO. 2009000582177 OF OFFICIAL RECORDS.
14. IRVINE INDUSTRIAL COMPLEX, A CORPORATION, HOLDER OF MINERAL RIGHTS, AS RESERVED IN DEED FILED IN BOOK 10151, PAGE 541 OF OFFICIAL RECORDS.

SHEET 2 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES

KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30560



BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION GPS NO. 6748 AND STATION GPS NO. 6554 BEING NORTH 51°46'29" WEST, PER RECORDS ON FILE IN THE ORANGE COUNTY SURVEYOR'S OFFICE.

DATUM STATEMENT:

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NAD, (1991.35 EPOCH OCS GPS ADJUSTMENT) AND ARE AS PUBLISHED BY THE ORANGE COUNTY SURVEYOR'S OFFICE IN THE DATUM SHOWN. ALL DISTANCES SHOWN ARE GROUND UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCE MULTIPLY GROUND DISTANCE BY 0.999983617.

REFERENCES:

- R1= INDICATES RECORD DISTANCE PER P.M.B. NO. 43/6
- R2= INDICATES RECORD DISTANCE PER P.M. NO. 81-604, P.M.B. 170/20-21
- R3= INDICATES RECORD DISTANCE PER P.M. NO. 84-630, P.M.B. 209/15-19
- R4= INDICATES RECORD DISTANCE PER INST. NO. 94-0132094, O.R.
- R5= INDICATES RECORD DISTANCE PER ROS 97-1004, R.S.B. 164/33-40
- R6= INDICATES RECORD DISTANCE PER ROS 2002-1024, R.S.B. 197-50

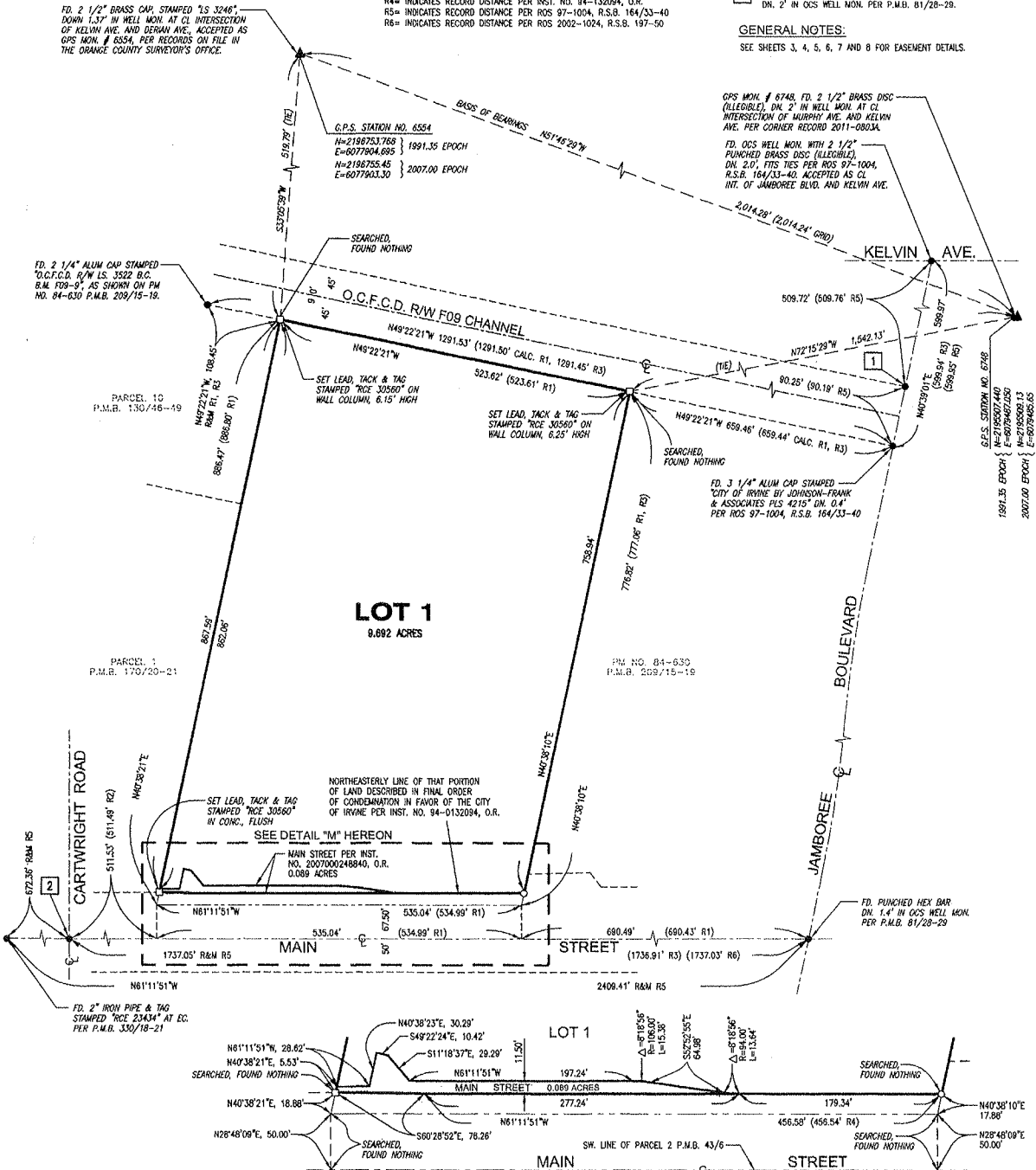
MONUMENT NOTES:

- INDICATES FD. MONUMENT AS NOTED
- ▲ INDICATES FOUND GPS MONUMENT PER RECORDS ON FILE IN THE ORANGE COUNTY SURVEYOR'S OFFICE.
- INDICATES SET SPIKE & WASHER STAMPED "RCE 30560", FLUSH
- SET LEAD, TACK & TAG STAMPED "RCE 30560" AS NOTED.
- 1" I.P. WITH TAG STAMPED "RCE 30560" OR 2" I.P. WITH TAG STAMPED "RCE 30560" OR LEAD, TACK & TAG STAMPED "RCE 30560" SET AT ALL LOT CORNERS, UNLESS OTHERWISE NOTED.

- 1 FD. 3 1/4" ALUM CAP STAMPED "CITY OF IRVINE BY JOHNSON-FRANK & ASSOCIATES PLS 4215" DN. 0.4" PER ROS 97-1004, R.S.B. 164/33-40
- 2 FD. 2 1/2" PUNCHED BRASS CAP STAMPED "LS 3246" DN. 2" IN OCS WELL MON. PER P.M.B. 81/28-29.

GENERAL NOTES:

SEE SHEETS 3, 4, 5, 6, 7 AND 8 FOR EASEMENT DETAILS.



DETAIL "M"
SCALE 1"=50'

SHEET 5 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES

KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30580

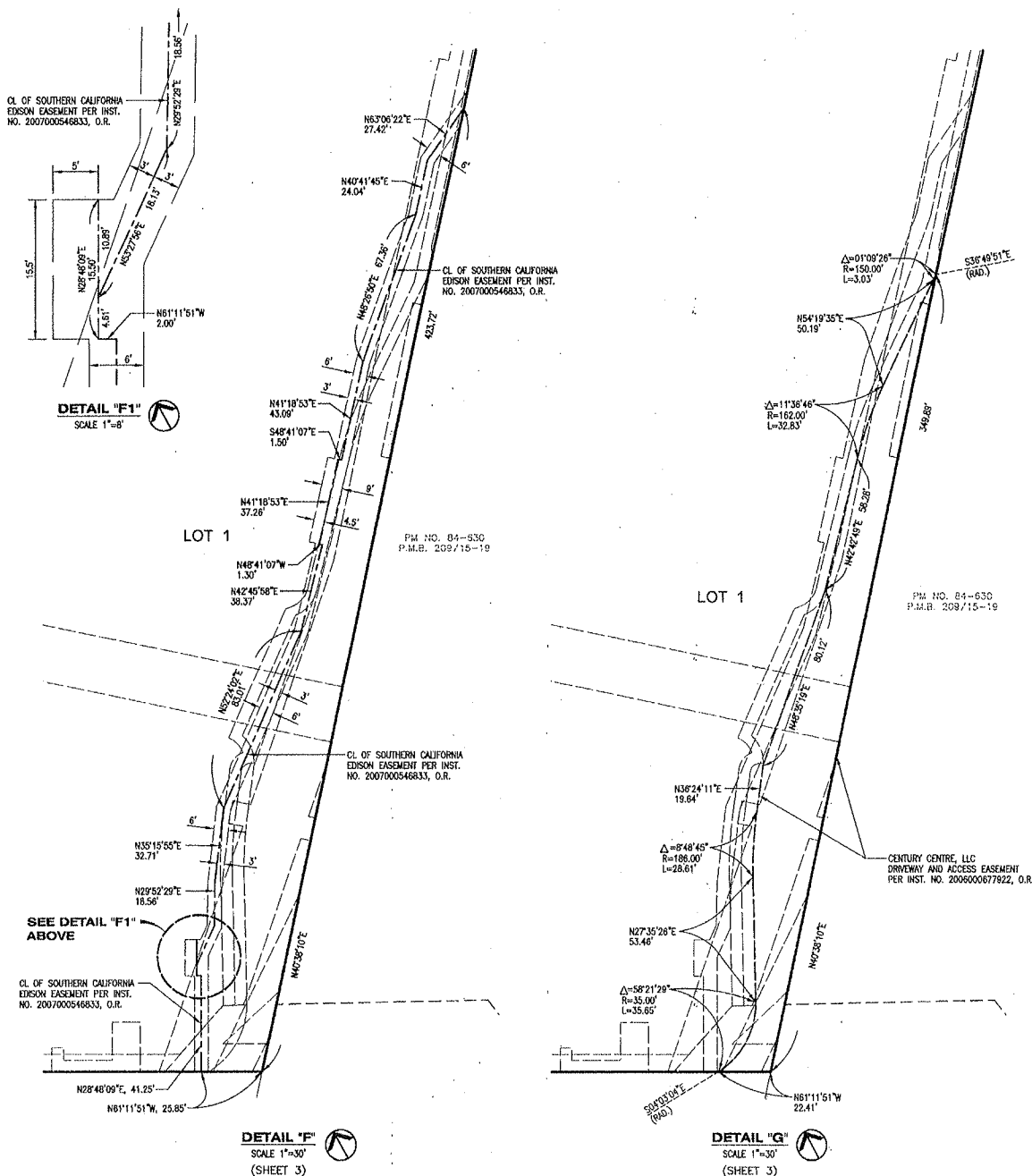
EASEMENTS DETAILS

NOTE:

SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM STATEMENT, REFERENCES, MONUMENT NOTES, GENERAL NOTES, BOUNDARY ESTABLISHMENT AND GPS TIE.

SEE SHEET 3 FOR EASEMENTS LOCATION SHEET.

SEE SHEETS 4, 6, 7 AND 8 FOR ADDITIONAL EASEMENT DETAILS.



922

SHEET 6 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES

KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30560

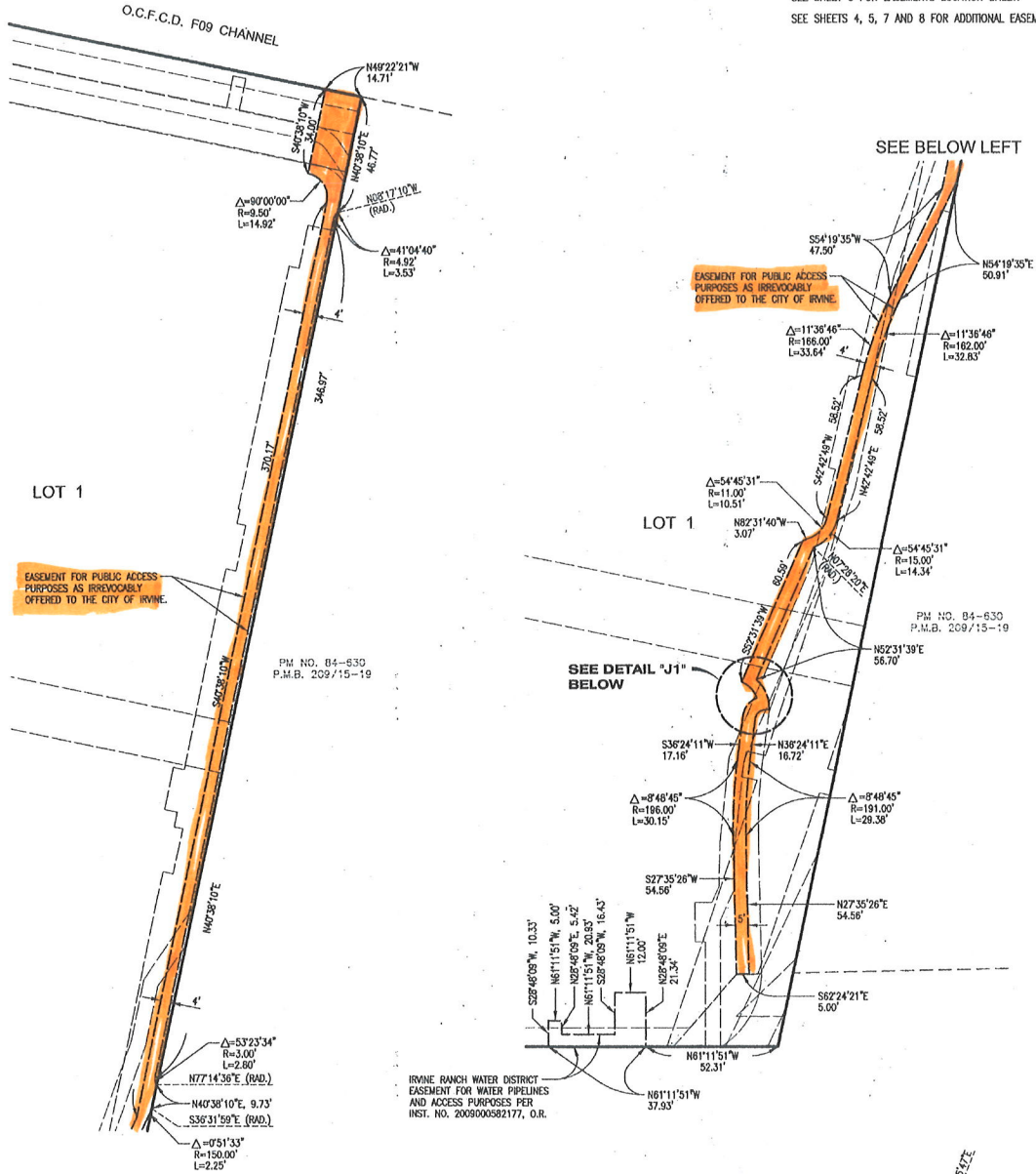
EASEMENTS DETAILS

NOTE:

SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM STATEMENT, REFERENCES, MONUMENT NOTES, GENERAL NOTES, BOUNDARY ESTABLISHMENT AND GPS TIE.

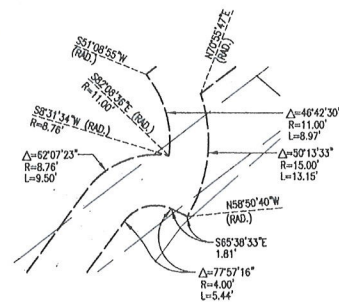
SEE SHEET 3 FOR EASEMENTS LOCATION SHEET.

SEE SHEETS 4, 5, 7 AND 8 FOR ADDITIONAL EASEMENT DETAILS.



IRVINE RANCH WATER DISTRICT
EASEMENT FOR WATER PIPELINES
AND ACCESS PURPOSES PER
INST. NO. 2009000582177, O.R.

DETAIL "J"
SCALE 1"=30'
(SHEET 3)



DETAIL "J1"
SCALE 1"=8'

SHEET 7 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

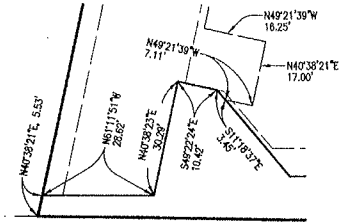
TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA
FOR CONDOMINIUM PURPOSES
KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30560

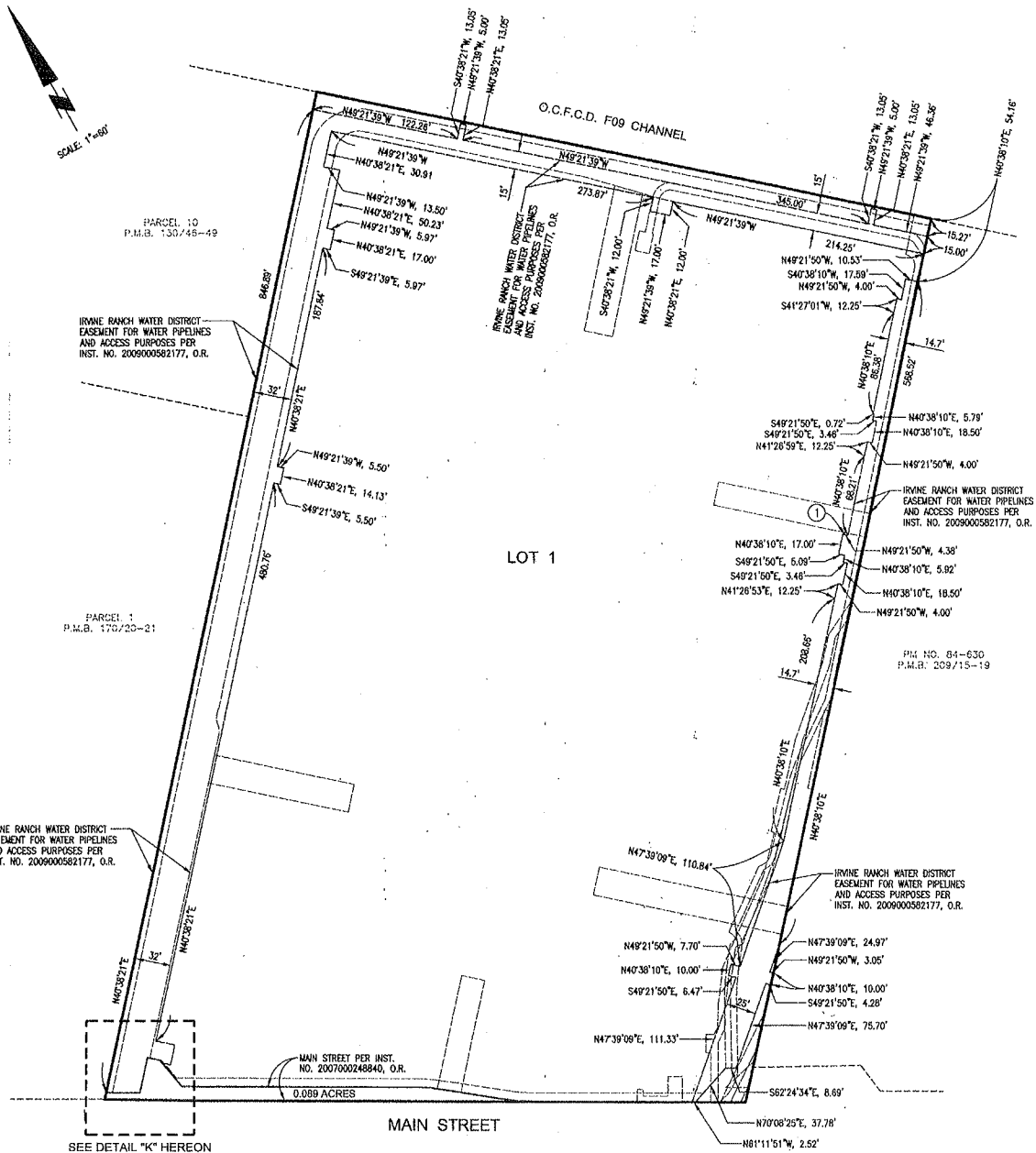
EASEMENT NOTE:
① HELD RECORD DISTANCE (4.38') AS DESCRIBED IN INSTRUMENT NO. 2009000582177 OF OFFICIAL RECORDS. SAID DISTANCE IS INCORRECTLY SHOWN AS 4.34' IN THE RECORD PLAT OF SAID INSTRUMENT.

NOTE:
SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM STATEMENT, REFERENCES, MONUMENT NOTES, GENERAL NOTES, BOUNDARY ESTABLISHMENT AND GPS TIE.
SEE SHEET 3 FOR EASEMENTS LOCATION SHEET.
SEE SHEETS 4, 5, 6 AND 8 FOR ADDITIONAL EASEMENT DETAILS.

EASEMENTS DETAILS



DETAIL "K"
NO SCALE



922

27

SHEET 8 OF 8
1 LOT
9.781 ACRES
DATE OF SURVEY: JULY 2011
ALL OF TENTATIVE TRACT MAP NO. 16955

TRACT NO. 16955

IN THE CITY OF IRVINE, COUNTY OF ORANGE, STATE OF CALIFORNIA

FOR CONDOMINIUM PURPOSES

KHR ASSOCIATES
JAMES H. KAWAMURA R.C.E. 30560

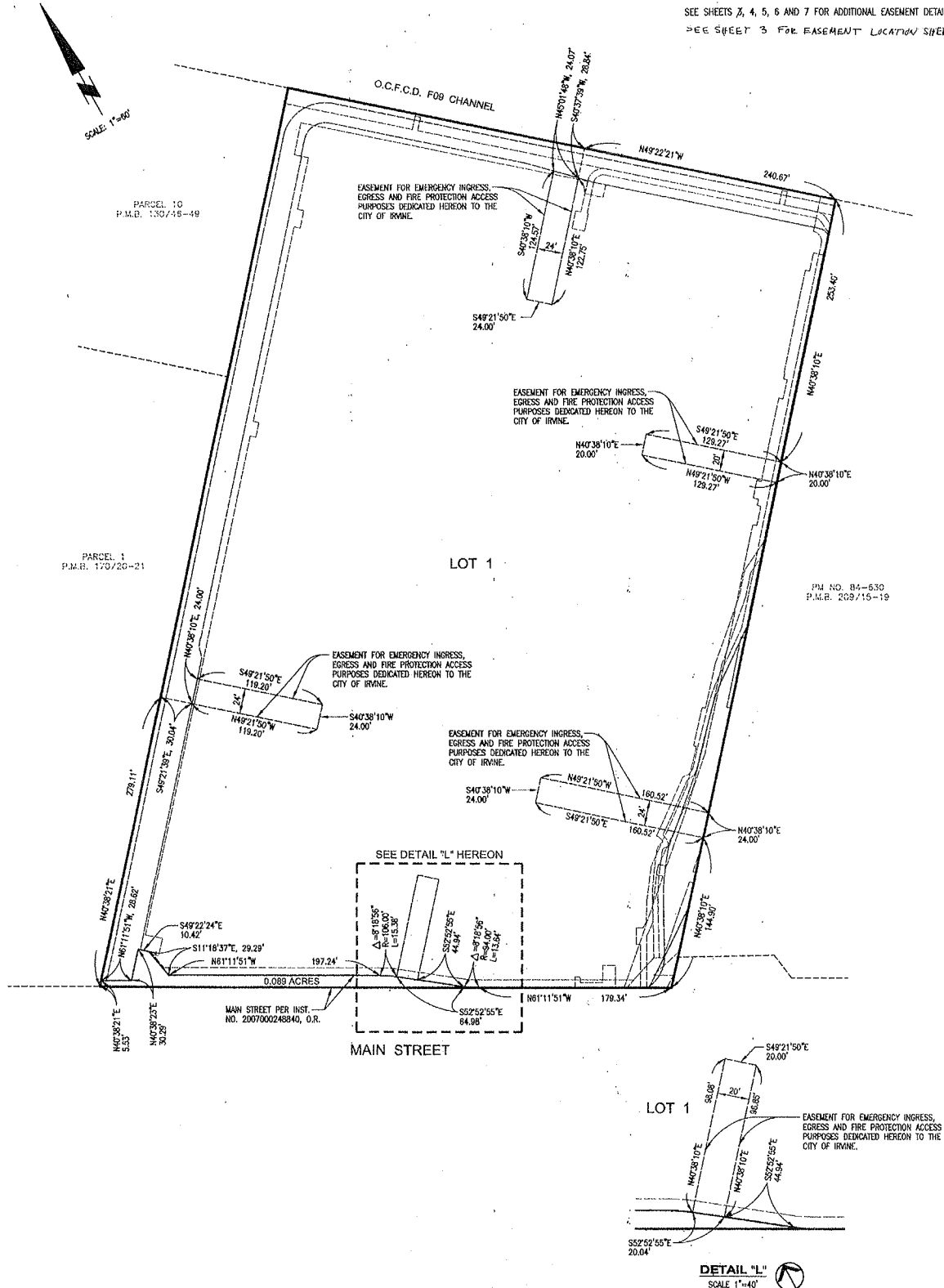
EASEMENTS DETAILS

NOTE:

SEE SHEET 2 FOR BASIS OF BEARINGS, DATUM STATEMENT, REFERENCES, MONUMENT NOTES, GENERAL NOTES, BOUNDARY ESTABLISHMENT AND GPS TIE.

SEE SHEETS 3, 4, 5, 6 AND 7 FOR ADDITIONAL EASEMENT DETAILS.

SEE SHEET 3 FOR EASEMENT LOCATION SHEET



Attachment 4 – Preliminary Foundation Report



TECHNICAL MEMORANDUM

EMI PROJECT NO: 14-127

DATE: August 6, 2014

PREPARED FOR: Mr. Chad Harden / Michael Baker Jr., Inc.

PREPARED BY: (Raja) S. Pirathiviraj and Lino Cheang / Earth Mechanics, Inc. (EMI)

SUBJECT: Preliminary Foundation Report (PFR)
Kelvin Pedestrian Bridge (New)
Irvine, Orange County, California

1.0 Scope of Work

This memorandum has been prepared to provide the necessary geotechnical information to assist the structural designers in the type selection process for the new Kelvin Pedestrian Bridge in City of Irvine, California. The content of this memorandum follows Caltrans Foundation Report Preparation for Bridge Foundations (Caltrans, 2009). It includes preliminary geotechnical, seismic, and foundation recommendations for the subject structure. The recommendations provided in this memorandum are based on subsurface information obtained from the recent field investigation performed by Earth Mechanics, Inc. The log-of-test-borings (LOTB) sheet is presented in the Appendix A. Foundation recommendations included in this report are based on preliminary design drawings and loads. As a result, these recommendations should be considered preliminary; final foundation design will be performed later during the PS&E phase.

2.0 Project Description

The Kelvin pedestrian bridge crosses Barranca Channel to provide connection between Kelvin Avenue and Main Street. A Site Location Map is presented in Figure 1.

At the project site, Barranca Channel is running in a northwest-southeast direction. The existing Barranca Channel is a trapezoidal channel with a total top-width of about 56.5 feet and a height of about 12.5 feet at the pedestrian bridge crossing. In the future, Barranca Channel will become a rectangular concrete channel at the pedestrian bridge crossing. The rectangular channel will be about 50-foot wide and about 12-foot high.

The pedestrian bridge will be a single-span structure. The length of the bridge is 62 feet and the width is 8 feet. The bridge abutments are proposed to be on spread footings.

3.0 Field Investigation and Testing Program

EMI performed two soil borings on July 21, 2014 near the proposed supports. Both borings were drilled to a depth of 70 feet below the existing ground surface. The LOTB sheet is presented in Appendix A.

4.0 Laboratory Testing Program

Soil laboratory testing was performed on selected samples obtained from the site-specific borings. Laboratory test results are included in Appendix B.

5.0 Site Geology and Subsurface Conditions

Topography: The project site is in the southern part of the basin known as the Tustin Plain and is near the eastern margin of the San Joaquin Hills. The major drainages in this part of the basin flow from the surrounding hills and mountains in the east and south. The principal drainage in the site area is San Diego Creek which flows northwesterly from the southern part of the plain, around the northern end of the San Joaquin Hills, into Newport Bay. The creek is now largely confined to earthen and concrete- or rip-rap-lined channels which include Peters Canyon Channel and Barranca Channel. At the proposed bridge site, the Barranca Channel extends southeast until it confluences with San Diego Creek at Main Street. Overall, the site is relatively flat with elevations at approximately +40 feet at the site and a regional topography sloping gently to the southwest.

Physiography: The project site is in the Los Angeles physiographic basin, a large, relatively flat, low-lying, coastal plain surrounded by mountains on the north, east, and southeast. The basin is bounded on the north by the Santa Monica Mountains, on the east by the Repetto-Puente-Santa Ana ranges, and on the south by San Joaquin Hills. The western margin of the basin is bordered by the sea and the Palos Verdes Hills. The floor of the basin slopes gradually southwesterly from about 300 to 600 feet elevation along the margins of the surrounding hills to sea level along the coastline. The generally flat-lying nature of the Los Angeles Basin floor is disrupted by an alignment of northwest-southeast trending, low-elevation hills along the Newport-Inglewood Structural Zone. The areas on either side of the Newport-Inglewood Structural Zone are essentially flat and comprise the Downey-Tustin Plain on the northeast and the Torrance Plain on the southwest. Major rivers within the basin are the Los Angeles, San Gabriel, and Santa Ana Rivers which enter the basin through gaps in the surrounding mountains and drain southerly across the basin floor.

Seismicity: The project site is in seismically active southern California. The largest historical earthquake within the project vicinity was the 1933 Long Beach event which had a magnitude of about 6.3. This earthquake did not rupture the surface but is believed to have been centered in the Huntington Beach-Newport Beach area and associated with the Newport-Inglewood Structural Zone (Hauksson and Gross, 1991).

The 1987 Whittier earthquake ($M=5.9$) occurred at depth on a thrust or reverse fault dipping northerly from the Los Angeles Basin, below the Puente Hills and the San Gabriel Basin. This



event probably occurred on one of the faults within the Coyote Hills fault zone which includes the Norwalk fault and the Puente Hills fault of Shaw and Shearer (1999).

There is no clustering or alignment of earthquakes in proximity to the site. This apparent lack of earthquake activity suggests that the site area is tectonically stable and suggests that there are no unrecognized active faults at the site.

The project site is located near projected trace of the San Joaquin Hills blind thrust fault. According to Caltrans ARS Online, the project site is approximately 1.3 miles from the buried fault rupture plane (Caltrans, 2012a). In the event of an earthquake, strong to moderate shaking should be anticipated at the site.

Subsurface Conditions. Based on the site-specific soil boring data, the subsurface material consists predominantly of fine-grained soils. Lean clay and silt were encountered to a depth of about 30 feet with occasional layers of silty sand and clayey sand. Fat clay with interbedded layers of silt was encountered between depths of about 30 feet and 65 feet. Below a depth of about 65 feet to the maximum depth explored, a clayey sand layer was encountered.

Perched groundwater was encountered at an approximate elevation of +16 feet (about 24 feet below the existing ground surface) in Boring A-14-01 only during drilling.

6.0 Scour Evaluation

Scour potential should not be a design issue because there is no support within the channel.

7.0 Corrosion Evaluation

Three soil samples were tested for pH, minimum resistivity, soluble chloride content and soluble sulfate content. The test result indicates that the minimum resistivities ranged from 100 to 330 ohm-cm. The pH ranged from 8.0 to 8.6. The soluble sulfate ranged from 1,500 to 7,700 ppm. The soluble chloride ranged from 512 to 5,168 ppm.

Based on the Caltrans Corrosion Guidelines (2012b), soils are considered corrosive if the pH is 5.5 or less, or the sulfate concentration is 2,000 ppm or greater, or the chloride concentration is 500 ppm or greater. Based on the above Caltrans criteria and the corrosivity test results, the on-site soils are corrosive to bare metals and concrete.

8.0 Preliminary Seismic Recommendations

The design ARS curve was determined using the Caltrans ARS Online website. The key parameters for determining the preliminary design ARS curve are listed in Table 1. The peak ground acceleration (PGA) is the zero-period spectral acceleration shown on the ARS curve. The design ARS curve is presented in Figure 2.

Table 1. Key Parameters for Determining Design ARS

Site Coordinates	Latitude = 33.6839 degrees	Longitude = -117.8405 degrees
Shear Wave Velocity, $V_{s(30)}$	853 feet/sec	
Peak Ground Acceleration (PGA)	0.606 g	

Liquefaction Evaluation. Liquefaction analysis was performed using the recent soil boring data and an assumed design groundwater depth of 10 feet below existing grade, which is roughly the depth to the channel bottom. Based on the results of the analysis, liquefiable materials were not encountered in Boring A-14-01. Results also indicate that a thin layer (less than 3 feet thick) of potentially liquefiable coarse-grained soils was encountered at a depth of about 17.5 feet in Boring A-14-02. This thin liquefiable soil layer does not appear to represent a continuous horizontal soil layer, and impact should not result in the collapse of the proposed bridge.

Liquefaction-Induced Soil Settlement. Calculated liquefaction-induced settlement at the northern approach (Boring A-14-01) was zero, and calculated liquefaction-induced settlement at the southern approach (Boring A-14-02) was 0.3-inch. We do not anticipate that the above settlement magnitudes will result in the collapse of the proposed bridge.

Surface Fault Rupture. The potential of surface fault rupture at this bridge site is anticipated to be low. In addition, per Caltrans Memo to Designer 20-10 (Caltrans, 2013), since the subject structure do not fall within an Alquist-Priolo Earthquake Fault Zone or within 1,000 feet of an unzoned fault that is Holocene or younger in age, further fault studies will not be needed.

9.0 Preliminary Foundation Recommendation

Spread footings are being considered for the proposed abutments. Based on the information provided by the structural designers, dimensions of the spread footing are 4 feet wide and 13 feet long. The bottom of footing is located about 6 feet below the existing grade. The service limit state bearing pressure is 1,200 psf.

Based on the service limit state bearing pressure, the resulting maximum calculated settlement is about 1-inch provided 2-foot of overexcavation is performed below the bottom of footing. The horizontal limits of the overexcavation should begin one foot from the bottom edge of the abutment footing and extending downward at a 45 degree imaginary plane until the plane intersects the recommended minimum excavation depth. Caltrans Structure Backfill should be used for backfilling with a minimum relative compaction of 95% of maximum density as determined by Caltrans Test Method 216. The overexcavation bottom should be proof rolled prior to backfilling. Further, the overexcavation bottom should be inspected by a qualified geotechnical engineer or technician to confirm the presence of an unyielding and competent surface.

10.0 Rectangular Channel

Existing Channel. A trapezoidal channel is located underneath the pedestrian bridge. Slope stability analyses were conducted for both static and pseudo-static conditions using subsurface information obtained from the LOTB sheet. Results of our analyses show that the calculated factor-of-safety is greater than the minimum required 1.5 under the static condition. Slope stability analysis under the pseudo-static condition was performed using a seismic coefficient equal to 0.202 (one-third of the horizontal peak ground acceleration). Analysis indicates that the calculated factor-of-safety is greater than the required minimum of 1.1 under the pseudo-static condition.

Future Channel. In the future, the existing trapezoidal channel will be re-configured to a rectangular channel. The rectangular channel wall will be located in close proximity to the abutment spread footing. As a result, additional surcharge loads exerted by the abutment footings will need to be considered in the future design of the vertical channel wall. This preliminary surcharge loading is presented in Figure 3.

11.0 References

Caltrans, 2013, Memo to Designer 20-10, January.

Caltrans, 2012a, Caltrans ARS Online Version 2 Website
(http://dap3.dot.ca.gov/ARS_Online/index.php).

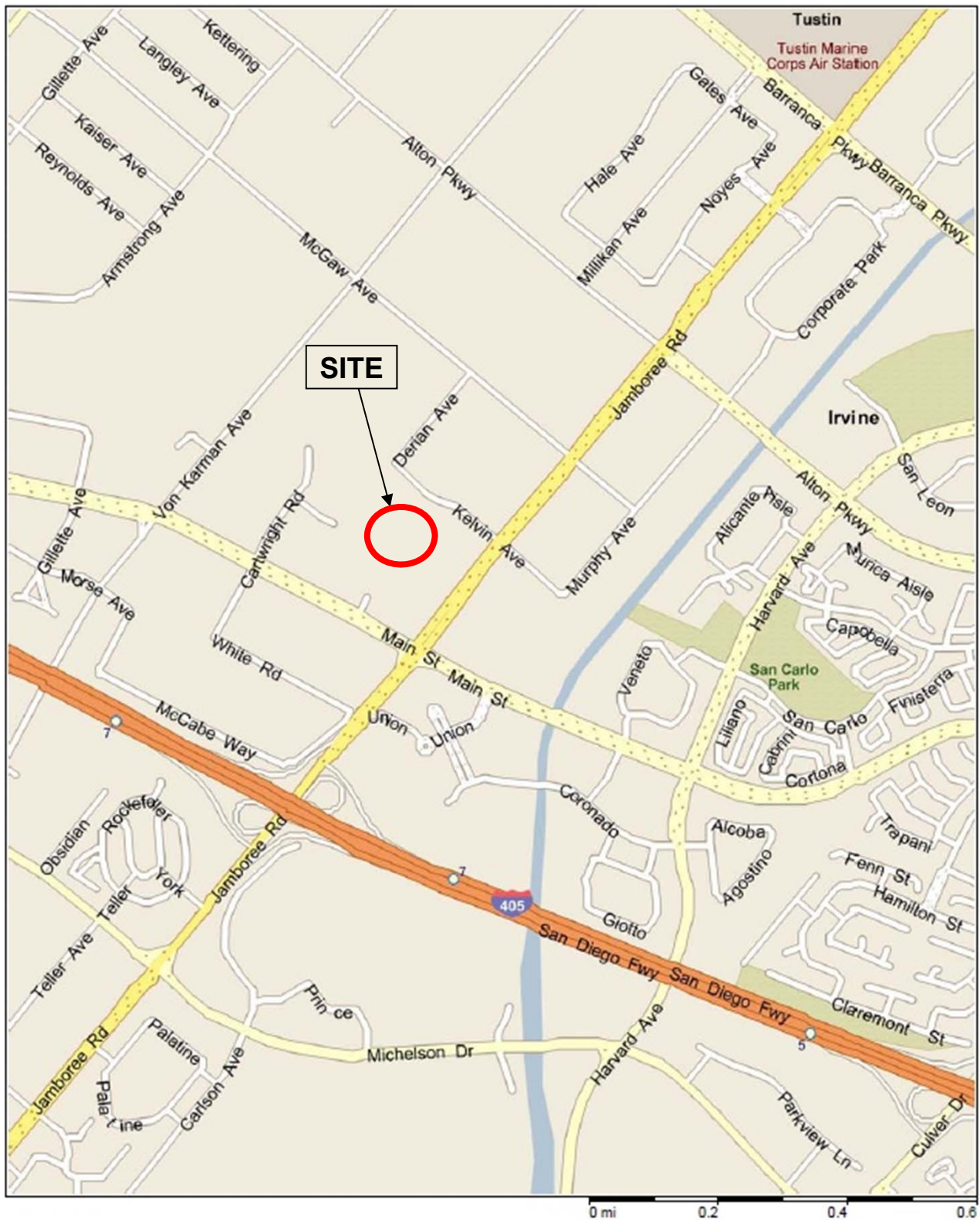
Caltrans, 2012b, Corrosion Guidelines, Version 2.0, November

Caltrans, 2009, Foundation Report Preparation for Bridge Foundations, Division of Engineering Services, Geotechnical Services, December.

Hauksson, E. and Gross, S., 1991, Source parameters of the 1933 Long Beach earthquake: Bulletin of the Seismological Society of American, v. 81, p. 81-98.

Shaw, J.H., and Shearer, P.M., 1999, An elusive blind-thrust fault beneath metropolitan Los Angeles: Science, v. 283, p.1516 (5 March)





Kelvin Pedestrian Bridge (New)



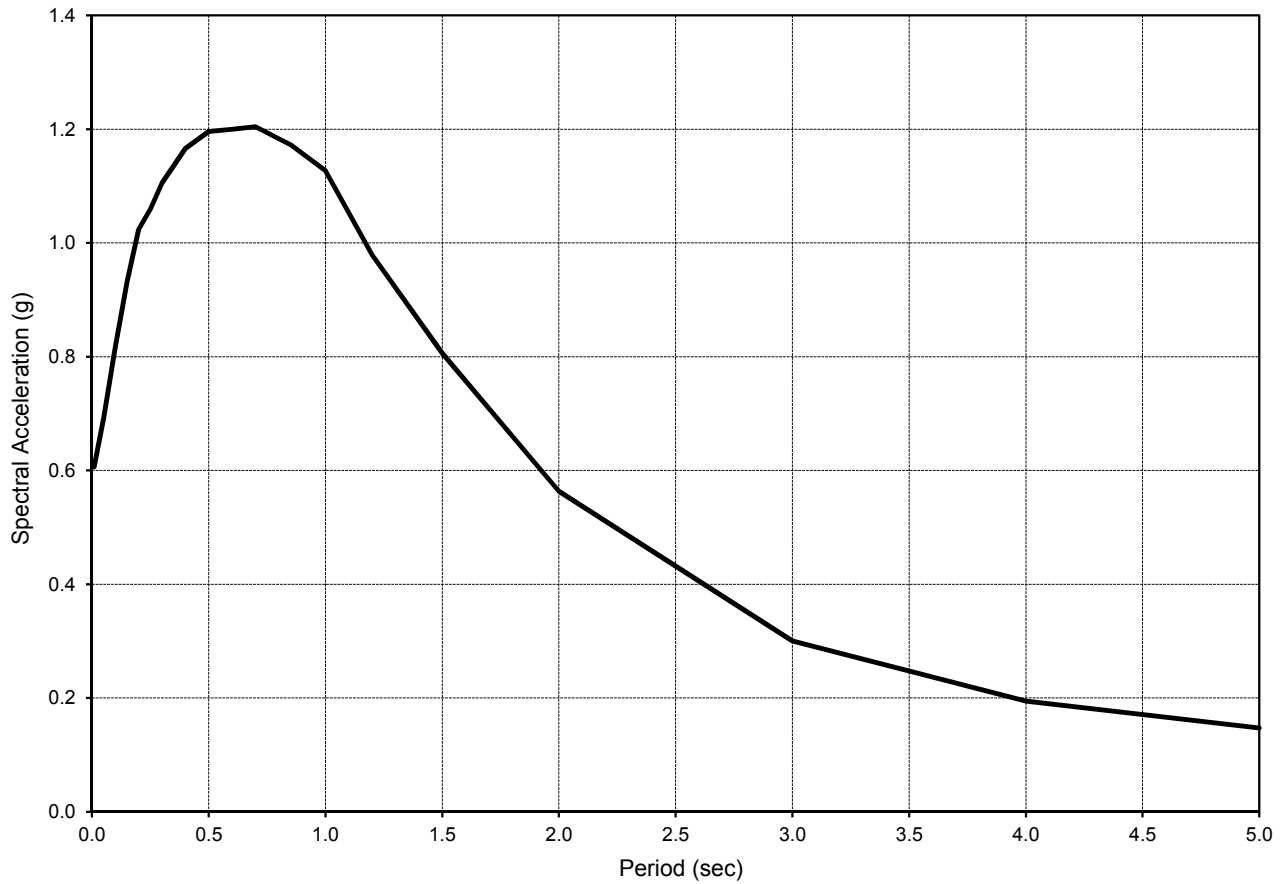
Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

SITE LOCATION MAP

Figure 1

Project No. 14-127

Date: 08-05-2014



Latitude = 33.6839 °
 Longitude = -117.8405 °
 Damping Ratio = 5%
 Magnitude M = 7.0

Spectral Coordinates			
Period (sec)	Acc. (g)	Period (sec)	Acc. (g)
0.010	0.606	0.700	1.204
0.050	0.693	0.850	1.173
0.100	0.817	1.000	1.127
0.150	0.932	1.200	0.979
0.200	1.024	1.500	0.806
0.250	1.060	2.000	0.563
0.300	1.105	3.000	0.300
0.400	1.166	4.000	0.194
0.500	1.196	5.000	0.147
0.600	1.200		



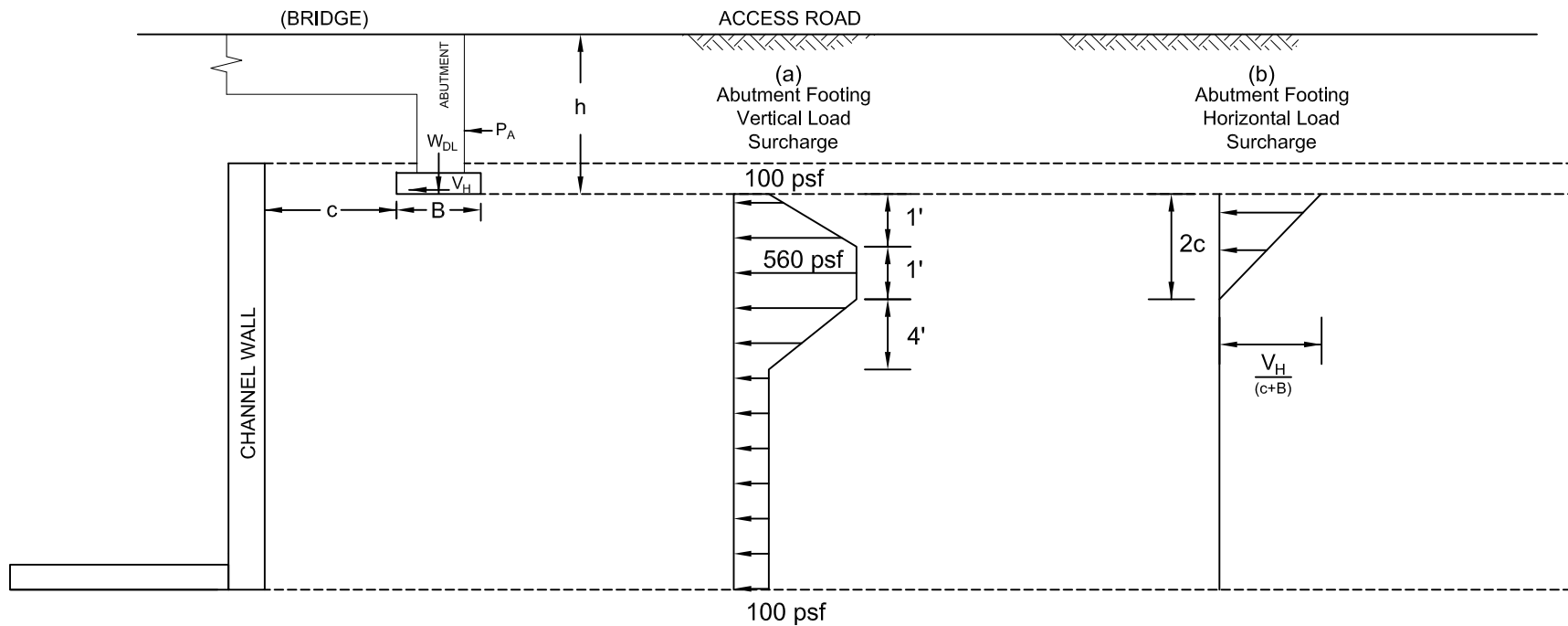
Kelvin Pedestrian Bridge

Project: 14-127

Date: 07/29/14

Design ARS Curve

Figure 2



W_{DL} = Dead load reaction at base of footing

V_H = Static horizontal reaction at base of footing = $0.5W_{DL}$, but not less than P_A

P_A = $18h^2$ lbs/ft (Active lateral earth pressure resultant)

Assumptions:

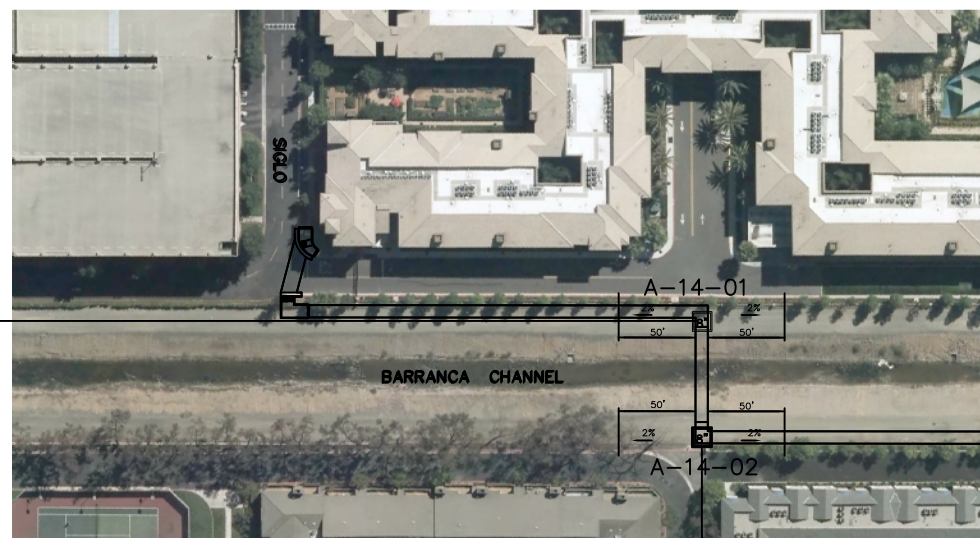
c = 1 foot (Distance between channel wall and abutment footing)

B = 4 feet (Width of abutment spread footing)

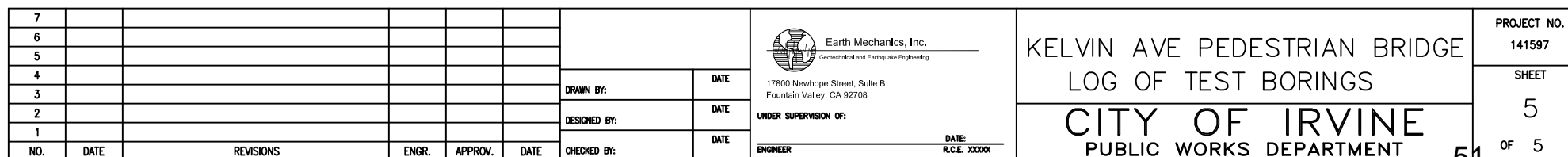
q = 1200 psf (Abutment footing bearing pressure)



Appendix A
Log-Of-Test-Borings (LOTB) Sheet



- (1) This LOTB sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification and Presentation Manual (June 2010).
- (2) See Caltrans 2010 Standard Plan Sheets A10F and A10G for Legend.
- (3) 2.4" samples were taken using a California Modified Sampler.
- (4) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.
- (5) Conversion factor from 2.4" Modified California Ring Sampler blowcounts to Standard Penetration Test (SPT) blowcounts is 0.5.

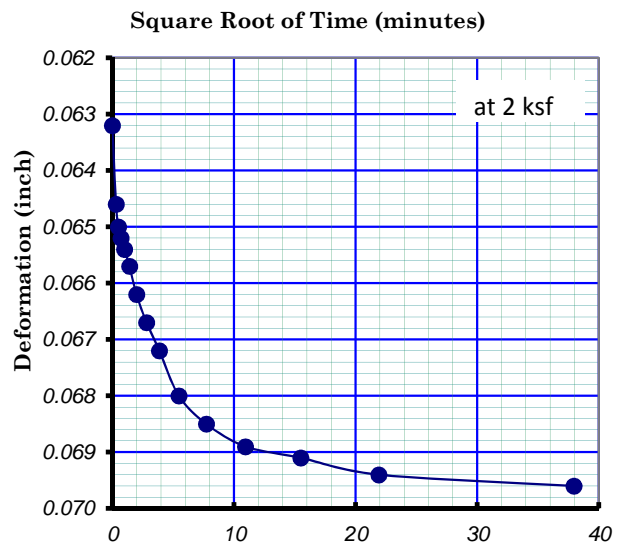
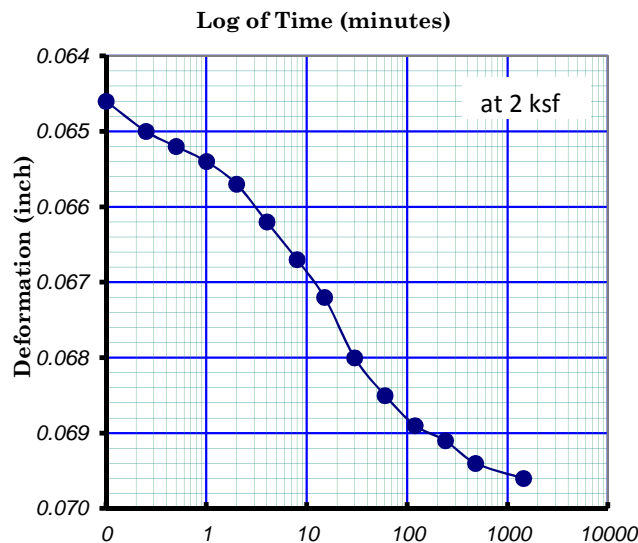
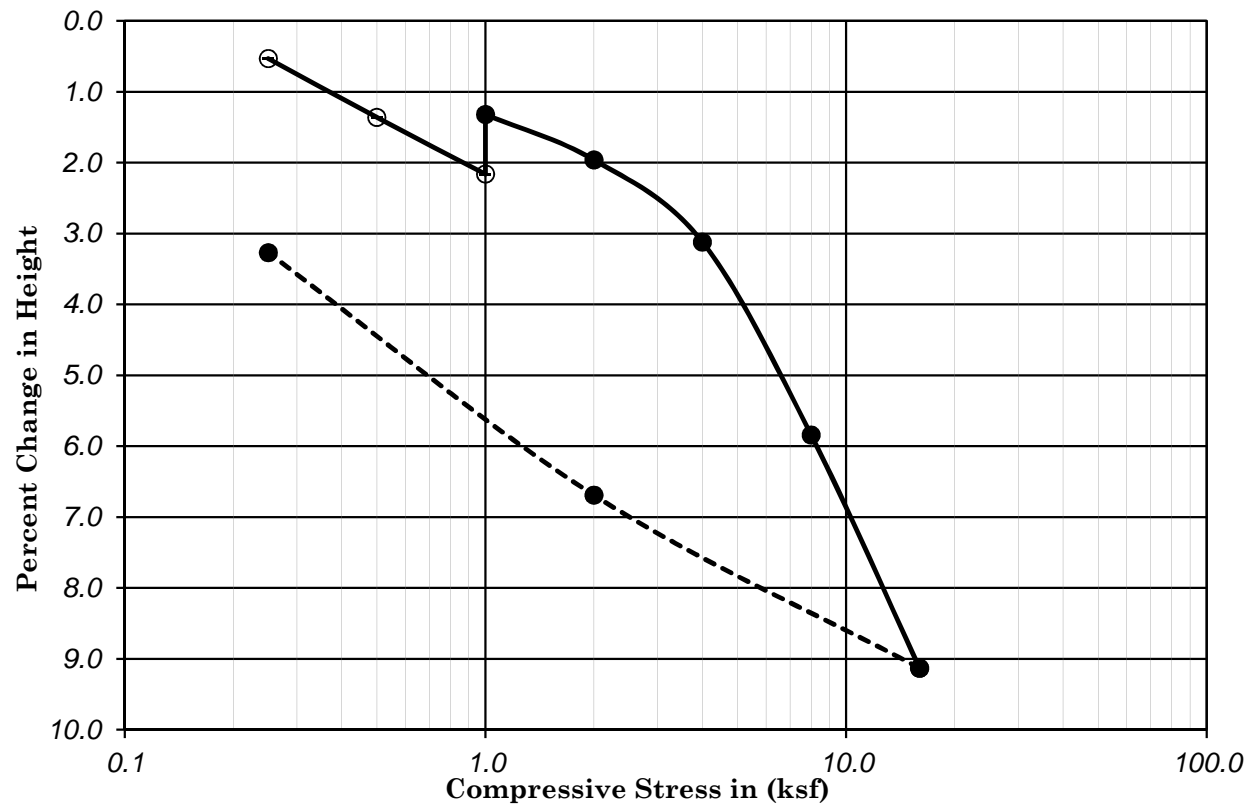


Appendix B
Laboratory Test Results

TABLE A-1 SUMMARY OF LABORATORY TEST RESULTS

Project No. : 14-127 Project Name : Kelvin Pedestrian Bridge

Boring No.	Sample No.	Sample Depth (ft)	Soil Identification (group symbol) ASTM D2488/D2487	Moisture Content ASTM D2216 (%)	Total Unit Weight ASTM D2937 (pcf)	Pocket Penetrometer (tsf)	Torvane Shear (tsf)	Grain Size Distribution GR:SA:FI (%)	Sand Equivalent (CT-217)	Atterberg Limits ASTM D4318 (LL/PL/PI)	Soil-Minimum Resistivity CT-643 (ohm-cm)	Soil-pH CT-643	Soil-Soluble Sulfate Content CT-417 (ppm)	Soil-Moisture Free Chloride Content CT-422 (ppm)
A-14-001	S-1	2.5	SM	4.5										
A-14-001	D-2	5	CL	34.8	110.9						240	8.0	7700	1243
A-14-001	S-3	7.5	CL	22.4										
A-14-001	D-4	10	CL	16.9	132.0	2.0								
A-14-001	S-5	12.5	CL	17.4										
A-14-001	D-6	15	CH	28.6	130.7	0.5								
A-14-001	S-7	17.5	CL	26.1										
A-14-001	D-8	20	SM	26.9	125.3									
A-14-001	S-9	25	CL	27.9				1:9:90						
A-14-001	D-10	30	CH	26.5	125.8									
A-14-001	S-11	35	CL	25.0										
A-14-001	D-12	40	ML	27.2	120.1	4.5								
A-14-001	S-13	45	CL	30.1										
A-14-001	D-14	50	CH	15.6	125.0	3.5								
A-14-001	S-15	55	CH	22.6										
A-14-001	D-16	60	SM	18.4	128.2									
A-14-001	S-17	65	CL	18.4										
A-14-001	D-18	70	SM	21.8	125.0									
A-14-002	D-1	2.5	CL	20.5	116.0	4.5								
A-14-002	S-2	5	CL	25.3										
A-14-002	D-3	7.5	CL	22.8	121.3	0.25					330	8.3	1500	512
A-14-002	S-4	10	CH	17.7										
A-14-002	D-5	12.5	CL	16.4	135.5	3.75								
A-14-002	S-6	15	CH	28.4										
A-14-002	D-7	17.5	SM	17.6	133.0									
A-14-002	S-8	20	CL	25.4						34/17/17				
A-14-002	D-9	25	CH	23.2	127.4									
A-14-002	S-10	30	CL	22.6						28/18/10				
A-14-002	D-11	35	CL	21.0	130.9	2.25					100	8.6	3700	5168
A-14-002	S-12	40	CL	29.9										
A-14-002	D-13	45	CH	24.7	125.5	3.25								
A-14-002	S-14	50	CH	23.8										
A-14-002	D-15	55	ML	25.7	121.3									
A-14-002	S-16	60	SM	27.4										
A-14-002	D-17	70	SC-SM	24.3	128.1									



Boring No. : A-14-001				Liquid Limit : -			Moisture Content (%)		Dry Density		Percent Saturation		Void Ratio
Sample No. : D-6				Plastic Limit : -					(pcf)		(kN/m ³)		
Depth	(ft)	15.0	16.5	Plasticity Index : -		Initial	23.71	104.38	16.43	104.11		0.61	
	(m)	4.58	5.03	Specific Gravity : 2.70		Final	22.80	107.93	16.99	109.61		0.56	
Description : Yellowish brown , Fat CLAY (CH)													



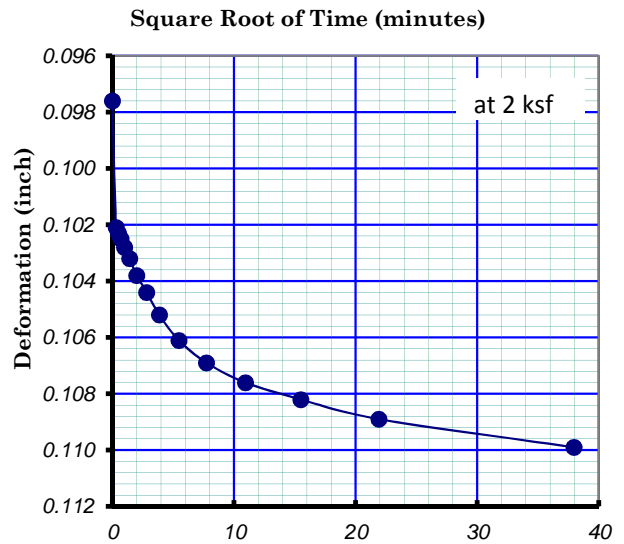
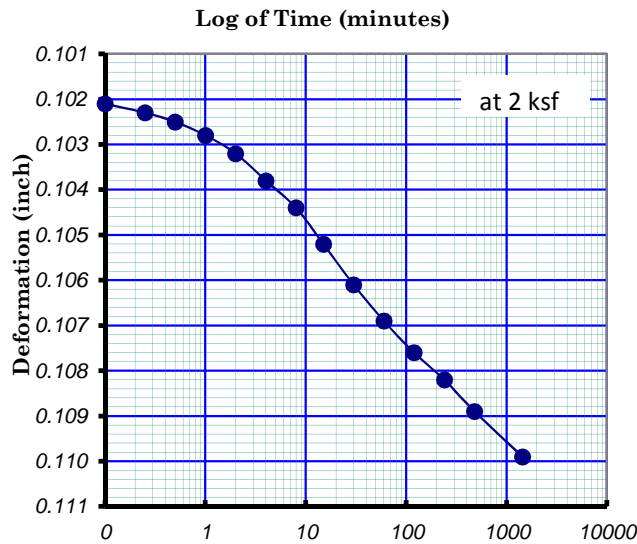
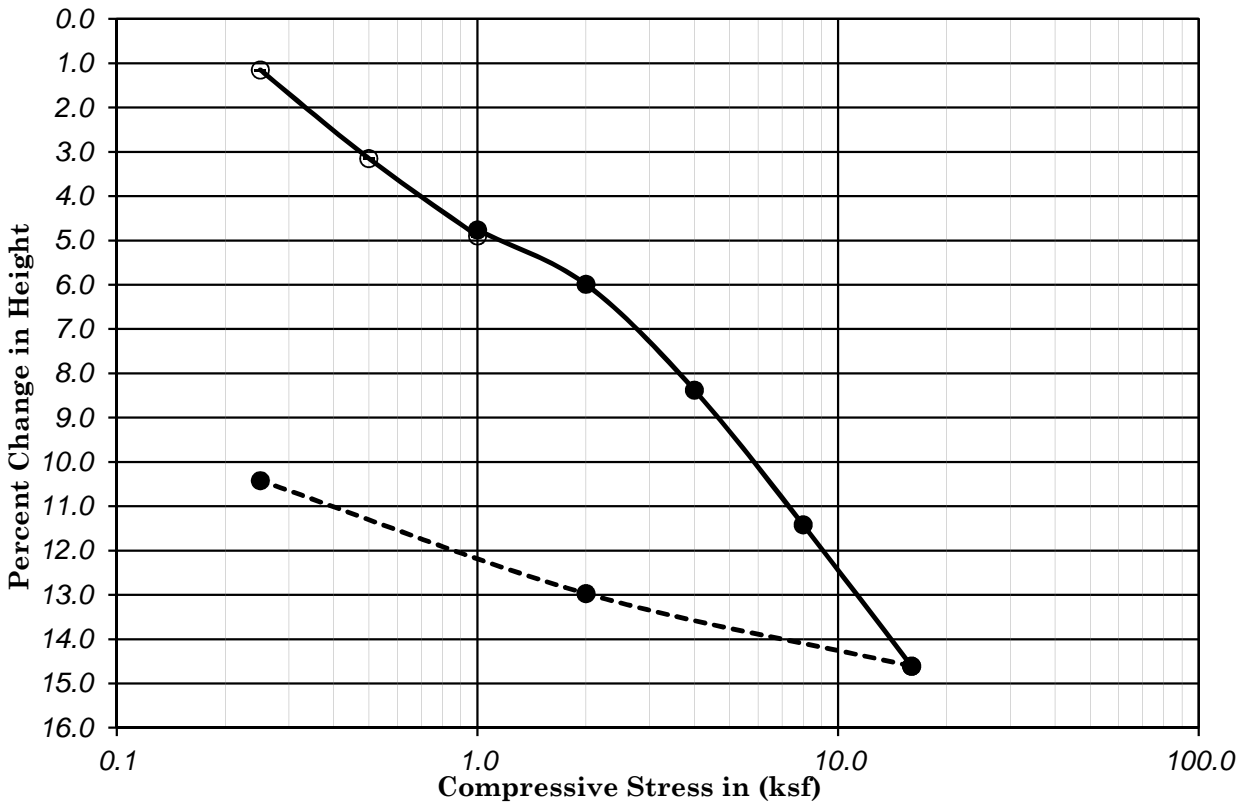
Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

RBF, Kelvin Ped Bridge, City of Irvine

Project No. : 14-127

08/04/14

CONSOLIDATION TEST
(ASTM D-2435 / CT-219)



Boring No. : A-14-002				Liquid Limit : -			Moisture Content (%)		Dry Density		Percent Saturation		Void Ratio
Sample No. : D-3				Plastic Limit : -					(pcf) (kN/m³)				
Depth	(ft)	7.5	9.0	Plasticity Index : -		Initial	23.73	100.64	15.84	94.92	0.67		
	(m)	2.29	2.75	Specific Gravity : 2.70		Final	20.45	112.39	17.69	110.50	0.50		
Description : Dark olive brown , Fat CLAY (CH)													



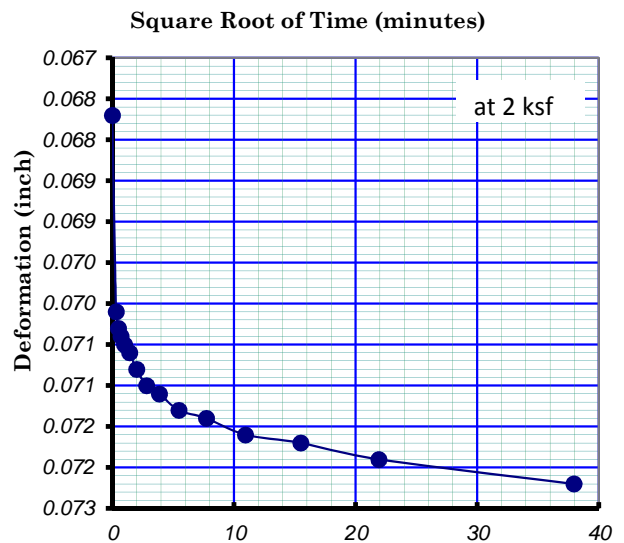
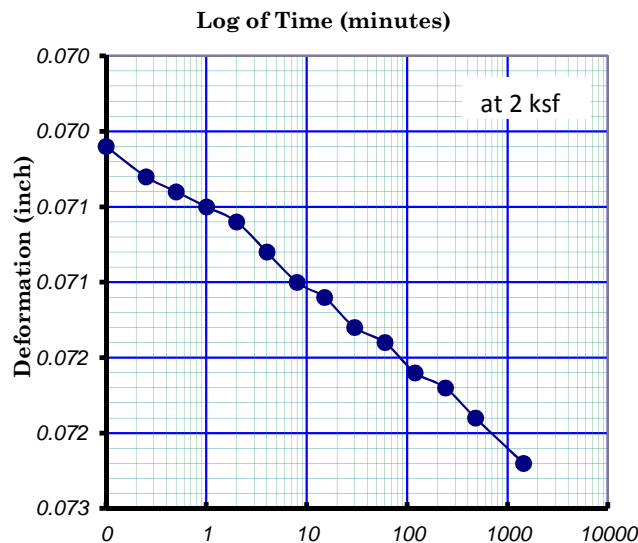
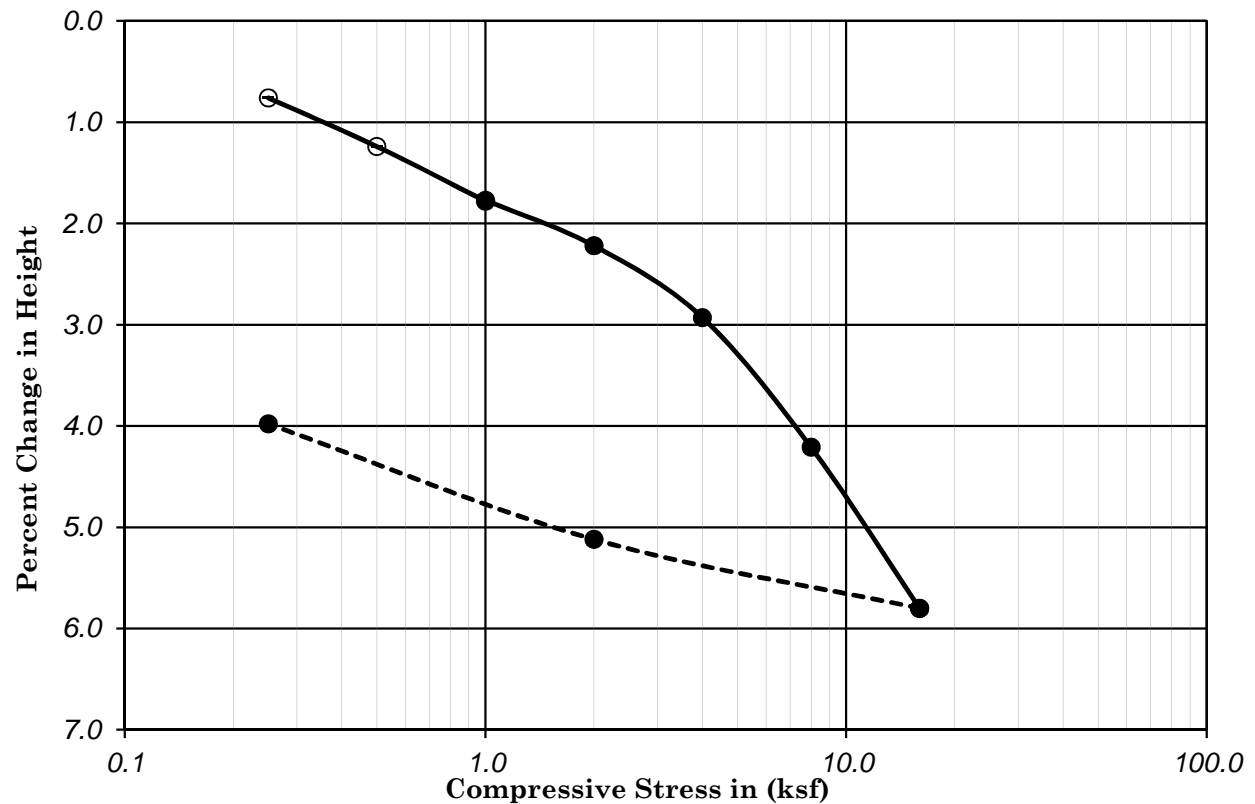
Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

RBF, Kelvin Ped Bridge, City of Irvine

Project No. : 14-127

08/04/14

CONSOLIDATION TEST
(ASTM D-2435 / CT-219)



Boring No. : A-14-002				Liquid Limit : -			Moisture Content (%)		Dry Density		Percent Saturation		Void Ratio
Sample No. : D-5				Plastic Limit : -					(pcf)		(kN/m ³)		
Depth	(ft)	12.5	14.0	Plasticity Index : -		Initial	16.62	116.27	18.30	99.76		0.45	
	(m)	3.81	4.27	Specific Gravity : 2.70		Final	15.04	121.12	19.06	103.72		0.39	
Description : Dark yellowish brown , SANDY lean CLAY (CL)													



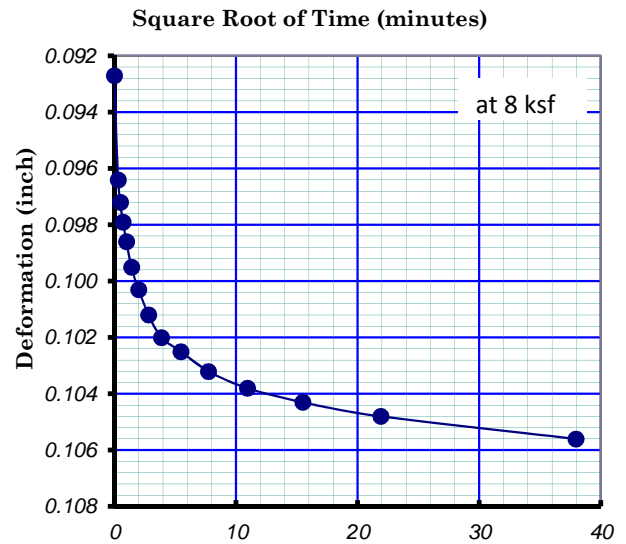
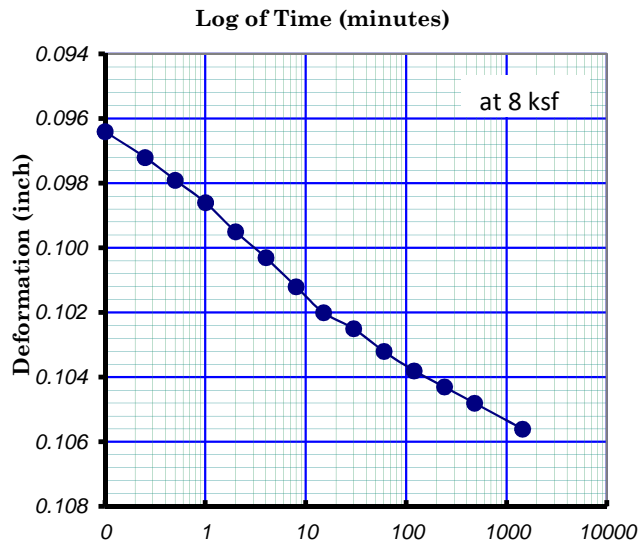
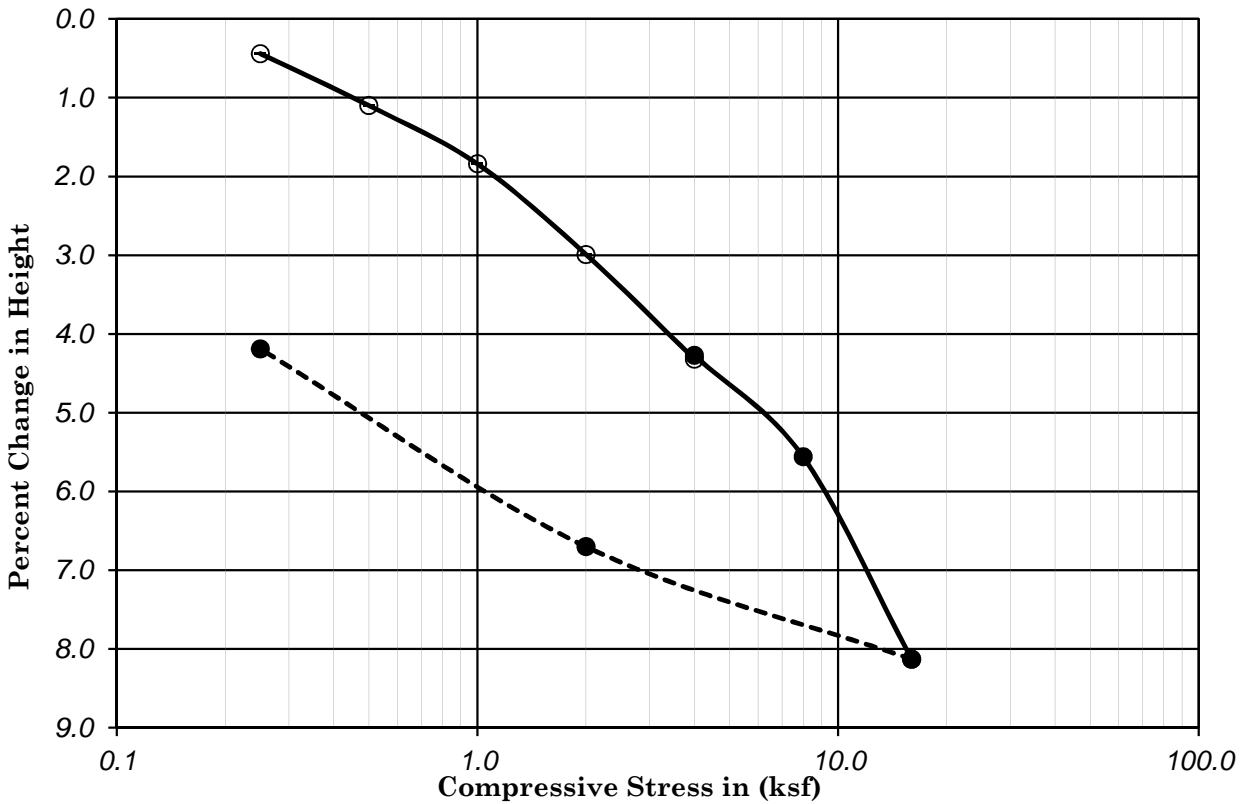
Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

RBF, Kelvin Ped Bridge, City of Irvine

Project No. : 14-127

08/04/14

CONSOLIDATION TEST
(ASTM D-2435 / CT-219)



Boring No. : A-14-002				Liquid Limit :		-		Moisture Content (%)		Dry Density		Percent Saturation	Void Ratio
Sample No. : D-11				Plastic Limit :		-				(pcf)	(kN/m³)		
Depth	(ft)	35.0	36.5	Plasticity Index :		-	Initial	22.78	106.67	16.79	106.00	0.58	
	(m)	10.68	11.13	Specific Gravity :		2.70	Final	20.84	111.34	17.53	109.50	0.51	
Description : Olive brown with gray, Lean CLAY (CL)													



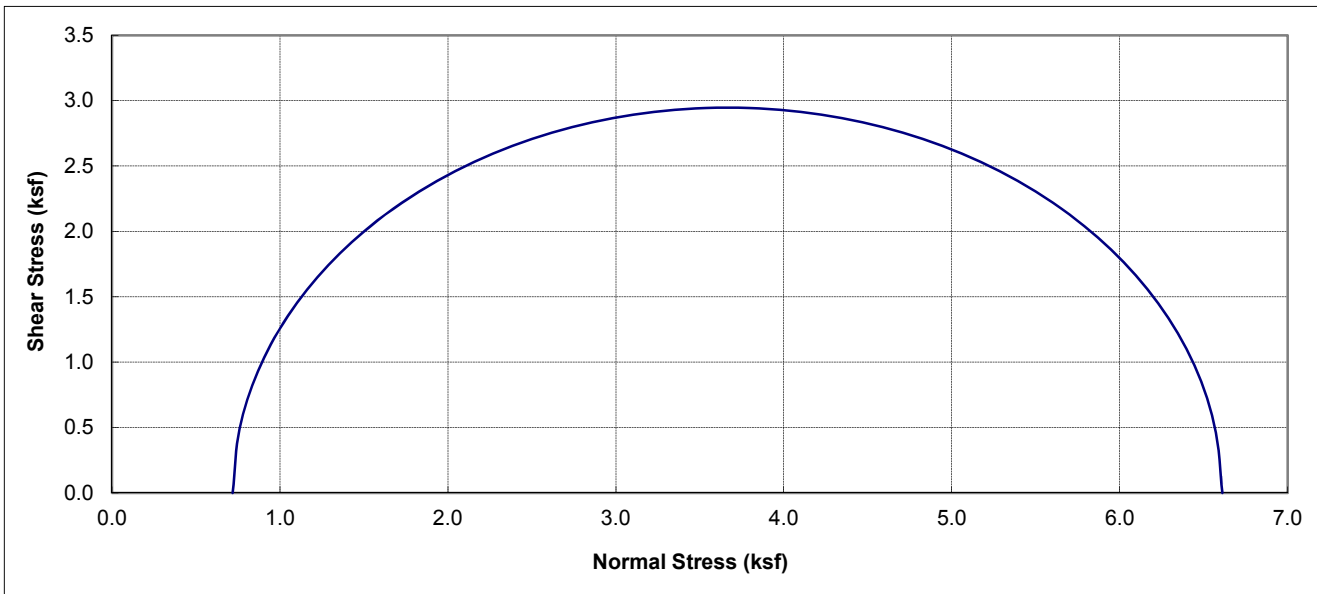
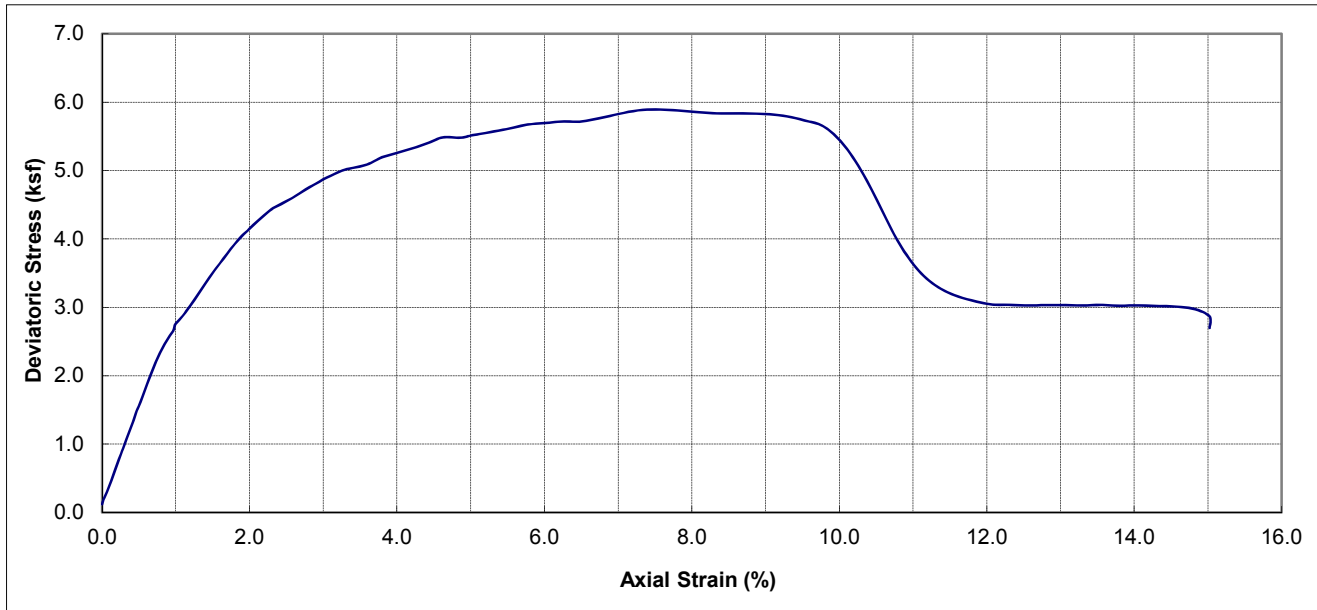
Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

RBF, Kelvin Ped Bridge, City of Irvine


Project No. : 14-127

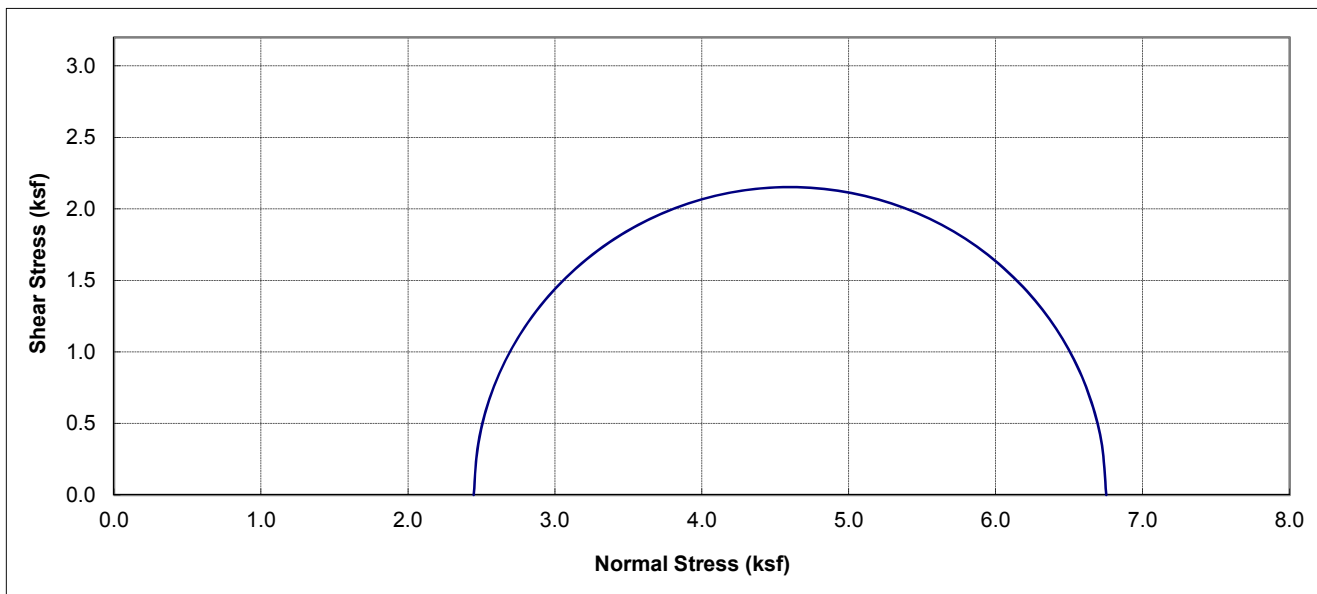
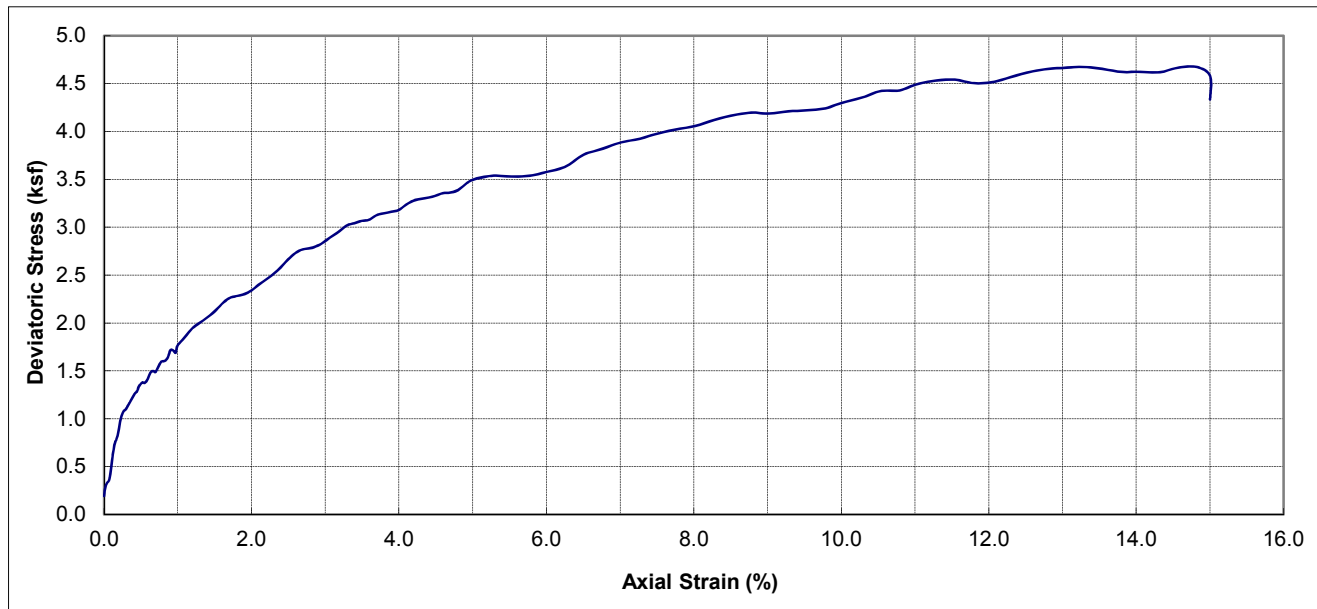
08/04/14

CONSOLIDATION TEST
(ASTM D-2435 / CT-219)




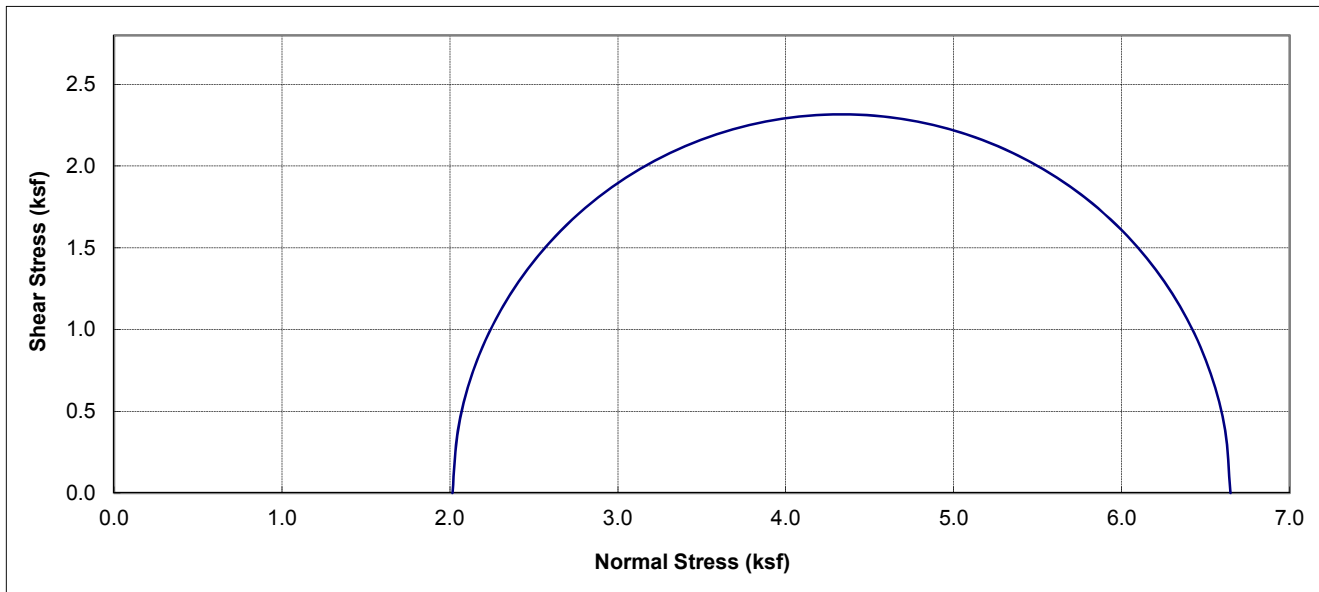
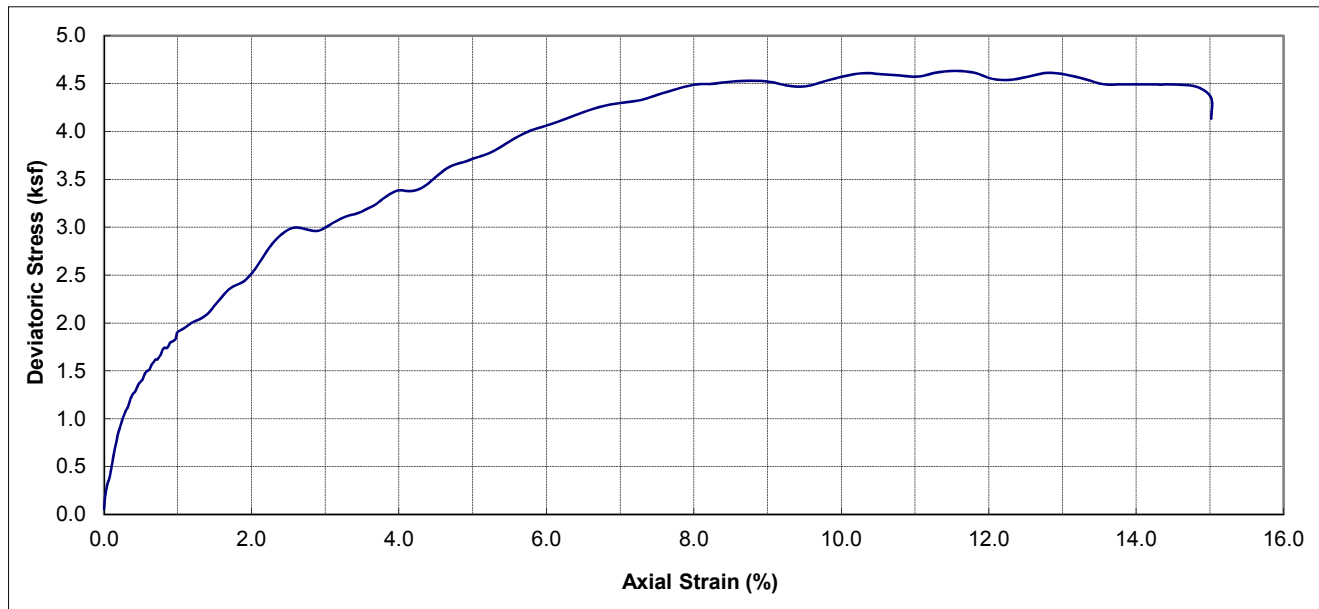
Boring No.	Sample No.	Depth (ft)	Soil Type	Dry Density (pcf)	Moisture Content (%)	Conf. Stress (ksf)	10% Axial Strain Dev. Stress (ksf)	Initial Saturation (%)
A-14-01	D-2	5	Dk. Brown, LEAN CLAY (CL)	85.4	34.77	0.72	5.89	96.4

 Earth Mechanics, Inc. Geotechnical and Earthquake Engineering	RBF, Kelvin Ped Bridge, City of Irvine				
	UNCONSOLIDATED UNDRAINED TEST (ASTM D2850)				
Project No. : 14-127		Date : 07/28/14		Figure No. :	




Boring No.	Sample No.	Depth (ft)	Soil Type	Dry Density (pcf)	Moisture Content (%)	Conf. Stress (ksf)	10% Axial Strain Dev. Stress (ksf)	Initial Saturation (%)
A-14-01	D-10	30	Olive Brown, FAT CLAY (CH)	104.3	23.29	2.45	4.30	102.3

 Earth Mechanics, Inc. Geotechnical and Earthquake Engineering			RBF, Kelvin Ped Bridge, City of Irvine		
			UNCONSOLIDATED UNDRAINED TEST (ASTM D2850)		
Project No. : 14-127		Date : 07/28/14		Figure No. :	



Boring No.	Sample No.	Depth (ft)	Soil Type	Dry Density (pcf)	Moisture Content (%)	Conf. Stress (ksf)	10% Axial Strain Dev. Stress (ksf)	Initial Saturation (%)
A-14-02	D-9	25	Olive Brown, FAT CLAY (CH)	100.1	26.50	2.02	4.63	104.7

 Earth Mechanics, Inc. Geotechnical and Earthquake Engineering	RBF, Kelvin Ped Bridge, City of Irvine				
	UNCONSOLIDATED UNDRAINED TEST (ASTM D2850)				
Project No. : 14-127		Date : 07/28/14		Figure No. :	

**Attachment 5 – Kelvin Avenue Pedestrian Bridge –
Barranca Storm Channel Basis of Design Report**

Kelvin Avenue Pedestrian Bridge

Barranca Storm Channel Improvements, Facility F09

Bridge Feasibility Study BASIS OF DESIGN REPORT

Prepared by:

RBF Consulting, a Company of Michael Baker International

Contact:

Brad Losey, RCE 65140

JN 141597

May 13, 2015 – Revised per comments



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Technical Appendix

- A. Barranca Channel Capacity Calculations
- B. Comment Response Letters to OCPW and Conditions of Approval

SECTION 1 – INTRODUCTION

This report serves to document the supplemental hydraulic analysis used to evaluate the required span width for the proposed Kelvin Pedestrian Bridge over Barranca Channel. The purpose of this analysis is to evaluate the feasibility of the Kelvin Avenue Pedestrian Bridge and recommend a clear span distance that will allow for construction of a pedestrian bridge without adversely impacting the existing flood plain, allowing potential future channel expansion, and minimizing throw-away costs. This is a preliminary Basis of Design Report in support of the pedestrian bridge feasibility study, and is not intended to be used as the final analysis for the design of the ultimate improvements to Barranca Channel.

Barranca Channel is owned by Orange County Flood Control District (OCFCD) and maintained on its behalf by Orange County Public Works (OCPW). The OCFCD designation for the Barranca Channel is F09. The channel was initially constructed in 1970. Subsequent projects have added box culverts for street crossings, and a 1993 emergency repair project widened the most downstream reach of the channel (Main Street to Jamboree Road). The channel is tributary to San Diego Creek. San Diego Creek was the subject of a Project Report that determined the ultimate channel size and design water surface elevations in 1987. OCFCD uses these elevations as the downstream control for design calculations, because San Diego Creek has not yet been expanded to the ultimate size. The San Diego Creek Project Report also developed recommendations for an ultimate Barranca Channel using a rectangular concrete channel.



Photo 1 - View of the inactive AT&SF railroad spur at the channel crossing. Looking from southeast side. Upstream is to the right of this photo.



Photo 2 - View of Barranca Channel at the entrance to the RCB under the AT&SF Railroad Spur. This RCB is located upstream of the proposed Kelvin Pedestrian Bridge location. (Approximate capacity of 750 cfs.) Note restriction of existing box culvert at Barranca Channel.

SECTION 2 – HYDROLOGY

Barranca Channel is owned by Orange County Flood Control District (OCFCD) and maintained on its behalf by Orange County Public Works (OCPW). The OCFCD designation for the Barranca Channel is F09. The channel was initially constructed in 1970. Subsequent projects have added box culverts for street crossings, and a 1993 emergency repair project widened the most downstream reach of the channel (Main Street to Jamboree Road). The channel is tributary to San Diego Creek.

The 100-year High Confidence a peak flow rate for the Barranca Channel at the confluence with San Diego Creek is 1448 cfs per the "San Diego Creek Master Plan" (RBF Consulting, September 30, 2013). The San Diego Creek Master Plan report also cites the "Barranca Channel Update to the San Diego Creek Flood Control Master Plan" (September 28, 2007) as the source of the Barranca Channel flow rates. The San Diego Creek Master Plan Table 7.1 recommends a peak flow rate at the confluence with Barranca Channel (CP6K) of 28,600 cfs for the 100-year High Confidence event.

SECTION 3 – HYDRAULICS

The Los Angeles County Flood Control District hydraulic analysis program F0515P, Water Surface Pressure Gradient (WSPG) computer program was used to develop the hydraulic model of the channel system. The program computes and plots uniform and non-uniform steady flow water surface profiles and pressure gradients in open channels or closed conduit with irregular or regular sections. The computational procedure is based on solving Bernoulli's equation for the total energy between the sections in a reach. The flow regime may alternate between supercritical, critical, subcritical and pressure flow in any sequence. The open channel flow procedure utilizes the standard step method. Losses at bends, angle points, manholes, entrances and exits, junctions, and friction are accounted for along each reach of the analysis. Confluences and bridge piers are analyzed using pressure and momentum theory. The locations of hydraulic jumps within the system are estimated by analyzing the system in the subcritical regime and reanalyzing the system in the supercritical regime. A hydraulic jump is approximately located where points of equal energy are calculated for the two analyses. The regime analyses are performed automatically within the analysis and require no additional user input.

The program output includes a listing of the input data, and for each reach depth of flow, water surface elevation or pressure gradient, discharge, flow velocity, velocity head, energy grade elevation, critical depth, normal depth, and conveyance characteristics.

The As-Built Plans for Barranca Channel were compiled into a hydraulic model using the WSPG 2.4 software. The model covers the channel from the outlet at San Diego Creek (Station 2+84) to the RCB outlet at Barranca Road (Station 89+80). The proposed Kelvin Pedestrian Bridge is at approximate Channel Station 28+10. The existing channel is an engineered earth trapezoidal shape with 1.5:1 side slopes in the vicinity of the proposed pedestrian bridge location. The channel is 12.5-ft deep with a 16-ft bottom width. There is a six inch depression from the channel wall toe to the channel invert. Per the OCFCD Addendum 5, this depressed invert is not considered in the channel capacity calculations.

On January 15, 2015, OCPW provided a water surface elevation of 35.16 (NGVD 29) to be used as the water surface control elevation in San Diego Creek for Barranca Channel.

The existing Barranca Channel is considered deficient by OCPW. The channel does not have the capacity to pass the 100-year High Confidence flow rate with the freeboard required in accordance with the Orange County Flood Control District Design Manual Addendum 3. Using the downstream control provided by OCPW, the existing channel was analyzed using WSPG for the existing condition, and verified that the channel is deficient. To determine the capacity of the channel, the hydraulics were repeated with smaller flow rates. The peak flow was reduced in 10 percent increments to find the flow rate that will remain within the channel banks. Two flow rates were determined to be relevant to the discussion. The capacity of Barranca Channel in the vicinity of the proposed bridge is limited by the capacity of the box culvert underneath the inactive AT&SF railroad spur (Station 39+50). The capacity of the channel at the railroad spur RCB is approximately 750 cfs. At the proposed Kelvin Avenue Bridge, the capacity is approximately 900 cfs. The WSPG calculations are contained in the Appendix and summarized on the included chart "Barranca Channel HGL Plot"

SECTION 4 – OVERLAND FLOW DISCUSSION

The project site and environs were examined using USGS Quadmaps, OCPW index maps, aerial topography, Google Earth topographic data, verified by a field visit. Additionally, RBF/Baker conducted a Topographic Route Survey on March 4, 2015. The object of this examination was to find the areas of ponding and/or the potential route of breakout for the flow that exceeds the existing channel capacity. The USGS mapping indicates a prevailing grade toward the southwest. The contours shown on the Tustin California Quadmap do not definitively show the breakout route from the channel should the channel capacity be exceeded. To further evaluate the probable breakout route and ponding areas aerial mapping contours at a five-foot interval were obtained and evaluated. The mapping confirmed the information gleaned from the quadmap, and showed a low area along Von Karman Avenue, where the breakout flow would initially pond. The OCPW index maps show that the local storm drains in Von Karman Avenue will convey the ponded water back into Barranca Channel as the flooding depicted by the hydrograph recedes. The site visit found that the breakout route for flow is along the railroad spur, out to Von Karman Avenue, and ultimately out of the Barranca Channel watershed. Because the area is relatively flat, it is difficult to conclusively delineate a defined breakout route. The Elevation Profile tool in Google Earth can help find breakout routes by comparing the profile of alternative routes.

Four routes were investigated:

- 1) Along the Tracks and South on Von Karman,
- 2) South through the development and along Cartwright Road,
- 3) East across the development and along Kelvin Avenue toward Jamboree Road,
- 4) East along Barranca Channel toward Jamboree Road.

These four potential breakout routes are illustrated and attached to this report. The routes and profiles are displayed using Google Earth and the included Elevation Profile tool. The conclusions herein are made based on a Topographic Route Survey, but displayed using the Google tools.

The Topographic Route Survey conducted by the RBF/Baker Survey Crews confirmed the results found using the Google Earth Elevation Profile tool, it shows that breakout toward the east is not probable. The terrain rises approximately two feet from the top of the channel at the railroad spur RCB to Jamboree Road. Similarly, the OCFCD right of way adjacent to Barranca Channel also rises over two feet toward Jamboree. Conversely, the Topographic Route Survey did confirm that the primary breakout route is along the AT&SF railroad spur, and south along Von Karman Avenue, across Main Street, and toward the Lane Channel (F08). The secondary breakout route is toward Cartwright Road, across Main Street, and toward Lane Channel.

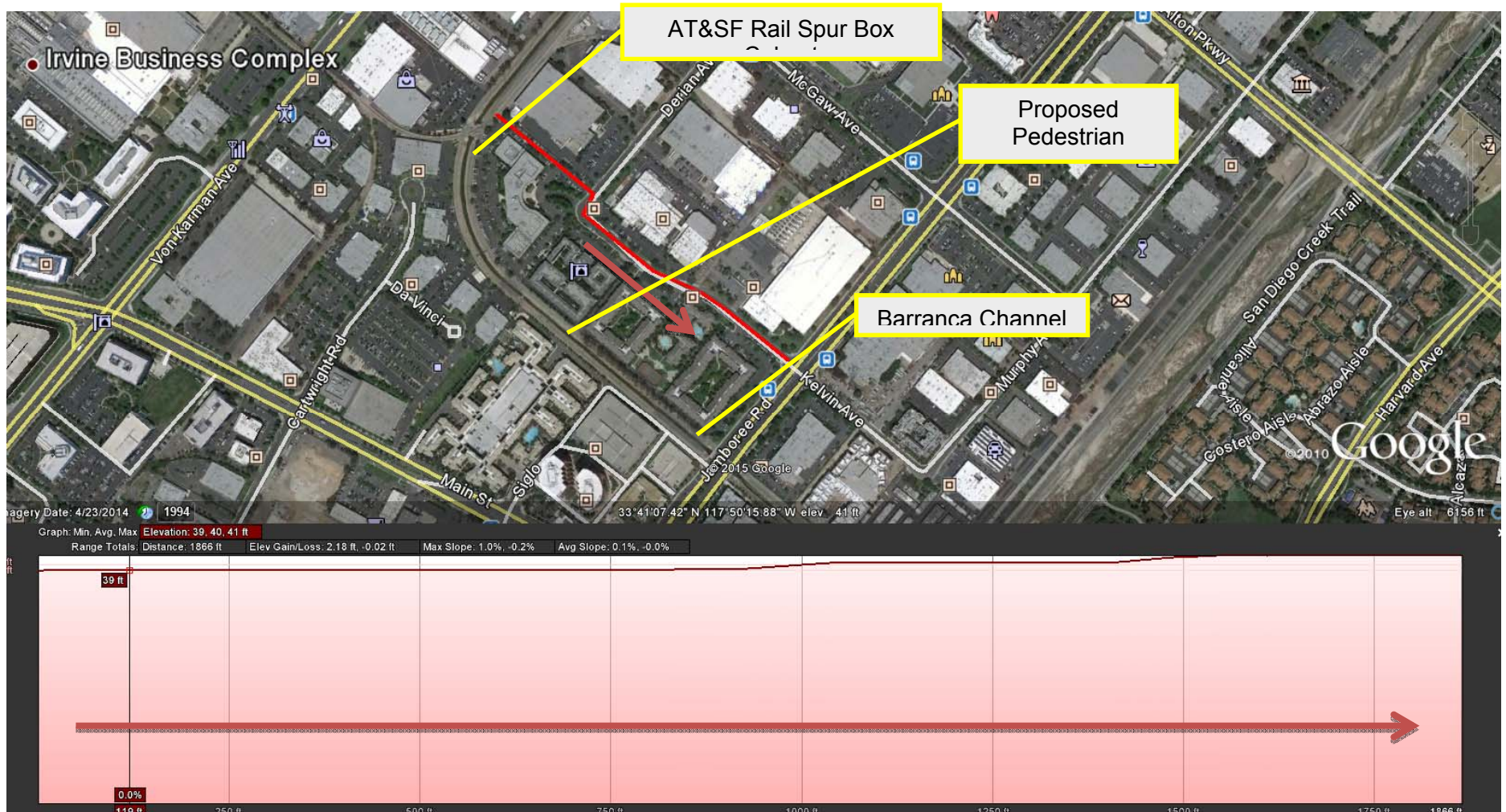
The capacity of the channel at the railroad spur RCB limits the channel capacity to 750 cfs. As the channel banks are exceeded, the runoff will pond in the adjacent developed areas, and eventually breakout toward the south. Ponded water within the watershed will return to the channel as the hydrograph recedes through the local storm drain system, but the flow that is forced outside the channel does not return to the system at a rate that can cause the channel to reach a bank-full condition at the proposed pedestrian bridge location. Therefore, the construction of the proposed Kelvin Avenue Pedestrian Bridge will not alter the existing flow conditions and will not adversely impact the existing channel hydraulics.



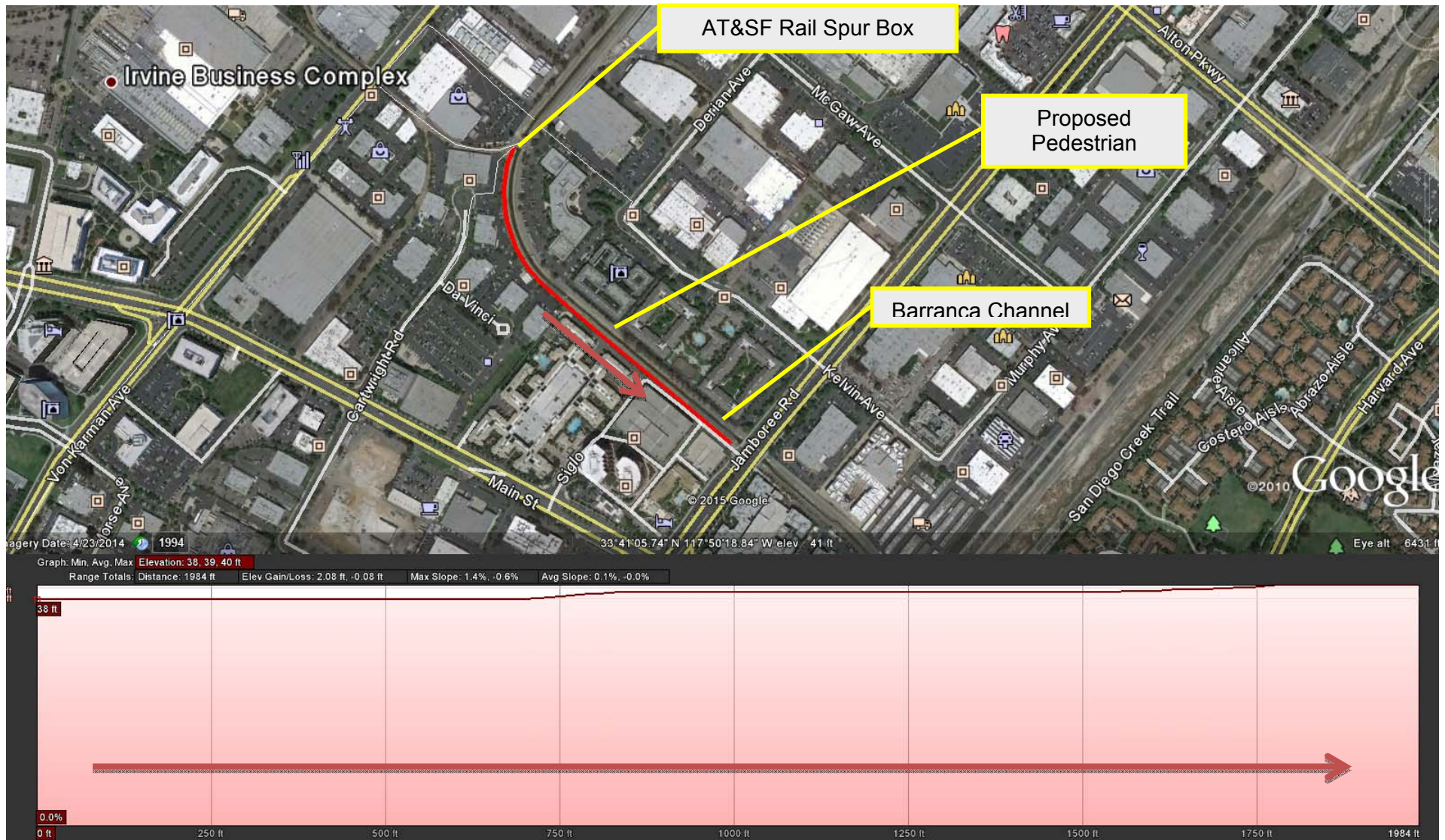
Route 1: Profile of potential breakout along Von Karman Ave. Note: Elevations shown are not on project datum



Route 2: Profile of potential breakout along Cartwright Road. Note: Elevations shown are not on project datum



Route 3: Profile of containment along Kelvin Ave. Note: Elevations shown are not on project datum



Route 4: Profile of containment along Barranca Channel. Note: Elevations shown are not on project datum

SECTION 5 – FREEBOARD CONSIDERATIONS

Due to the existing hydraulic deficiencies within the Barranca Channel, the available channel freeboard does not meet the freeboard requirements per Addendum #3 of the OCFCD Design Manual. The available freeboard is a result of the existing channel geometry, cross section, and the quantity of flow within the channel has been shown to be restricted by the upstream AT&SF box culvert.

As shown in the analysis in Section 4, Runoff in excess of the channel capacity will tend to flow away from Barranca Channel. This condition is also documented by the stepped vertical profile of the top of channel bank as shown in the original Barranca Channel As-Built Plan (DWG F09-101-1A) in the appendix. Based on these conditions it is not possible for flow to exceed the channel banks at the proposed bridge location.

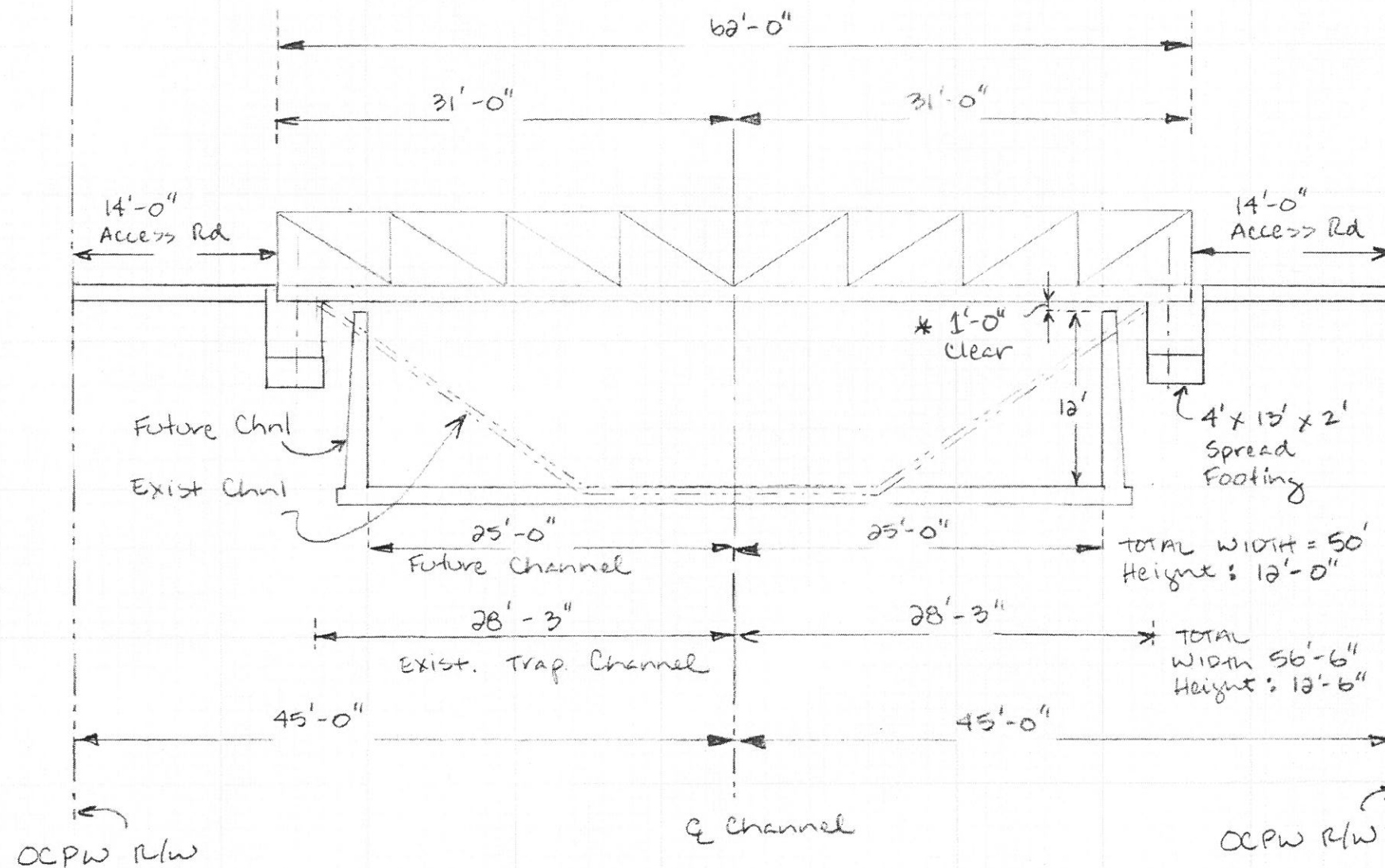
Because the proposed bridge cannot worsen the existing deficient condition, the freeboard requirements for this pedestrian bridge have been discussed with OCPW Flood Programs. Elevating the soffit of the pedestrian bridge a minimum of one-foot above the existing channel bank was determined to be adequate for this bridge. The relationship between the proposed bridge and the top of channel bank is shown as a sketch on the included copy of the Barranca Channel As-Built Plan (DWG F09-101-1A).

SECTION 6 – CONCLUSIONS AND RECOMMENDATIONS

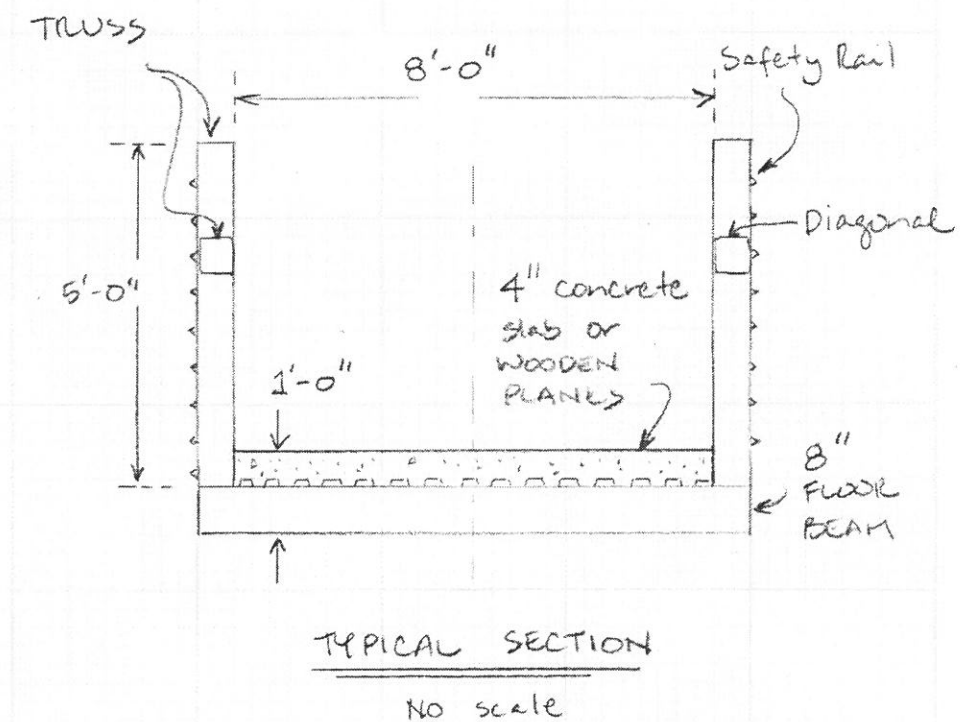
Based on field review and the route survey conducted by the RBF/Baker Survey Crews, it is apparent that the Barranca Channel watershed is not a traditional "closed system". Flow in the channel can escape the watershed when the channel capacity is exceeded. The profile of the channel banks restricts the ponded water from returning to the channel. Ponding that will occur during the 100-year High Confidence Event is expected to be relatively shallow as a result of the available break-out routes and velocities are anticipated to be minimal. Addition of the Pedestrian Bridge does not present an impediment to the existing levels of protection provided by Barranca Channel

The existing channel width at the Kelvin Pedestrian Bridge is 56.5 feet. The ultimate Barranca Channel has not yet been recommended by OCPW. The OCFCD Right of Way is 90-ft. Reserving 14-ft on each side of the channel for maintenance access, the maximum possible channel width within the existing R/W is 62-ft. To provide additional freeboard at the proposed pedestrian bridge location, it is recommended that the soffit elevation be designed a minimum of one-foot above the existing top of channel bank. This will provide approximately 1.5 feet of freeboard from the 750 cfs water surface, based on the capacity of the upstream AT&SF box culvert. This would allow the existing channel to flow in a manner similar to the existing condition, should a 100-year high confidence event be experienced. Future channel width should be addressed if/when OCFCD upgrades Barranca Channel to the ultimate configuration.

The City will need to obtain an encroachment permit from OCPW Property Permits for the City's plans to remove, reconstruct, and relocate structures interfering with future OCFCD improvements. Additionally, Orange County stipulates that performance of these activities shall be at no cost to OCFCD/County. There will be a language to that effect in the easement document and any license or permit for this project.



KELVIN BRIDGE - ELEVATION
Scale 1" = 10'



* Note: Provide additional 1'-0" of clearance as recommended in Kelvin Bridge Pedestrian Bridge Feasibility Study Basis of Design Report.

Attachment 6 – County Plan Check Comments and Responses

December 3, 2014

Sahar Parsi
Encroachment Permits
OC Public Works
300 N. Flower Street
Santa Ana, CA 92702-4048

JN 141597

Subject: Response to Plan Check Comments #01-Permit: 2014-755 and # 01.1 – Permit 2014 – 00755

Thank you for providing the attached comments dated November 17 and 18, 2014. We intend to include the comments in the attachments to the Feasibility Study for the Kelvin Avenue Pedestrian Bridge Project. Following are our responses to comments from each of the commenting departments:

OC Construction: Materials Lab

1. Preliminary foundation report should be signed and stamped by the project geotechnical engineer.

Response: The final report will be signed and stamped by a geotechnical engineer.

2. Final foundation report should be submitted for our review with the project plan and specification review letter from the project geotechnical engineer of record.

Response: To be provided in final design activities.

3. Future rectangular channel foundation recommendations should be provided based on the proposed bridge loading and the subsurface conditions encountered in the field geotechnical investigation.

Response: The specific design of future channel improvements is not known at this time and will not be known next year when final design of the pedestrian bridge is submitted for an encroachment permit with the County.

4. Final foundation report should include but not limited to all the calculations for liquefaction settlement, slope stability, bearing capacity and static settlement and all design and construction considerations.

Response: To be provided in final design activities.

5. After construction, final construction observation report including as built plan and compaction information should be provided for our review.

Response: To be provided in final design activities.

OC Operations & Maintenance

1. Permittee to provide full detailed plans to fully evaluate the impact to OCFCD Facility.

Response: To be provided in final design activities.

2. Permittee shall enter into and/or amend current "Agreement" with OCFCD/County of Orange.

Response: It is requested that a meeting be scheduled with the County reviewer and City staff to clarify the agreement requirements so that they can be documented in the Feasibility Study.

3. Permittee shall incorporate O&M plan to keep debris, trash, and graffiti at a minimum to non-existence.

Response: To be provided in final design activities.

4. Bridge deck shall be out of the 100 year flow elevation and a minimum of 12' (FT) above design elevation.

Response: The proposed concept meets this requirement.

5. Pedestrian surface shall be AC paving or better. This shall include both sides of bridge ramping as shown on submitted proposal.

Response: The proposed concept meets this requirement.

6. Guard Cable Fencing per OC Public Works Standard Plan 1413 shall be provided at top of channel for public safety.

Response: Fencing added to concept plan.

7. Please provide construction plans and details in next submittal for evaluation and considerations. Return for further review.

Response: To be provided in final design activities.

OC Infrastructure Programs –Flood Control:

General

1. We find the City of Irvine's (City) proposal to construct a pedestrian bridge (relocated approximately a hundred feet upstream of the previous proposal) over Barranca Channel (OCFCD Facility No. F09) and a 5-foot wide trail along F09 to be conceptually feasible subject to the following:

a. City should acknowledge that due to the deficiency of F09 and OCFCD's need to construct an improved channel with increased capacity, the proposed bridge and its foundation components,

appurtenances, etc. essentially represent a throw away cost. The proposed bridge may need future removal or reconstruction to accommodate OCFCD's future channel improvements.

Response: The bridge has been designed so that it could be compatible with future channel improvements. The foundations may require reconstruction dependent on the ultimate channel improvements.

b. Once City addresses all technical and operational comments and concerns as summarized herein, City will need to acquire an easement based on the fair market value of the property from OCFCD for public use of the proposed pedestrian bridge and an appropriate license or permit for the proposed 5-foot wide trail over the maintenance access road within OCFCD's right-of-way.

Response: The City intends to construct the project by means of an encroachment permit. An easement acquisition is not proposed. The City would like to schedule a meeting with the commenter to confirm this assumption.

c. Use of OCFCD right-of-way will be based on the City being responsible for all maintenance responsibilities, liability, etc. associated with the proposed project and public use. The easement document and any license or permit will contain a language stating that the use of the property is primarily for flood control purposes and will include indemnification provisions against any damages, losses, fines, etc.

Response: The City would like to meet with the County to confirm agreement requirements.

d. Improvement plans and supporting calculations (e.g., hydraulic calculations, bridge foundation stability assessment, etc.) should be submitted for review and approval via County Property Permit process. A detailed review of the proposed project and its compatibility with OCFCD's requirements will be performed at that time.

Response: To be provided in final design activities.

e. Gates and fencing requirements restricting public access to specific areas within OCFCD right-of-way may be required.

Response: To be provided in final design activities.

f. The proposed bridge foundations should neither interfere with the operation and maintenance activities for F09 nor jeopardize the structural integrity of the channel.

Response: The proposed concept meets this requirement.

Barranca Channel Memo and Kelvin Bridge Planning Study Write-up

2. The documents state that the Barranca Channel is owned and maintained by Orange County Public Works. F09 is owned and maintained by OCFCD. Please note of the correction for future submittals.

Response: Ownership corrected in Feasibility Study.

3. The memo indicates that the Final Runoff Management Plan for Tustin Legacy (RBF Consulting, December 2004) is cited in the San Diego Creek Master Plan (RBF Consulting, September 30, 2013) for the source of Barranca Channel flow rates. The Barranca Channel Update (RBF Consulting, September 28, 2007) was used in RBF's September 30, 2013 San Diego Creek Flood Control Master Plan Extension. It is not clear what discharges were used in the hydraulic modeling of F09.

Response: Comment Noted. This memorandum is revised to clarify the source of the discharge rate and the specific value is now listed.

4. The documents indicate that existing condition hydraulic analysis for the channel show that the water depth at the proposed bridge location is 9.9 feet. Additionally, proposed condition analyses were also performed based on OCFCD Design Manual's freeboard and maintenance requirements. These analyses will need to be provided for our review. Please see comment 1.d above.

Response: Comment Noted. This memorandum was written to evaluate the feasibility of the Kelvin Avenue Bridge. This is not an encroachment permit application, and a full Basis of Design Report has not yet been prepared. The hydraulics will require further refinement as the project develops, a statement regarding the need for a Basis of Design Report and an Encroachment Permit application have been added to the memorandum text. The hydraulic calculations used for this preliminary analysis are not attached.

5. The study write-up indicates that in the future, should OCFCD intend to improve F09, the spread footings can be removed and reconstructed, and the bridge superstructure relocated and re-placed. The City will need to obtain an encroachment permit from the County covering City's plans to remove, reconstruct, and relocate structures interfering OCFCD's improvements. Additionally, performance of these activities shall be at no cost to OCFCD/County. There will be a language to that effect in the easement document and any license or permit for this project.

Response: Comment Noted. These requirements are added to the memorandum text.

OC Development Services: Inspection Services

1. Locate the bridge entry/exits outside of OCFCD right-of-way as it reduces the channel access road width below the 14- foot minimum.

Response: The channel access road has a minimum width of 14 feet at the location where the bridge crosses the channel. This change has not been made to the concept.

2. Construct (4) dual swing gates per OCPW standard plans to secure OCFCD right-of-way at all times.

Response: Dual swing gates have been added to concept plan.

OC Watershed and Environmental Resources

1. As considered in the initial application for this project under Permit No. 2012-00694, to ensure that post-construction contribution of polluted runoff to OCFCD right-of-way is minimized and prevented through implementation of Best Management Practices (BMPs), permit applicant shall provide a proposed Water Quality Plan (WQP) for the proposed public project, consistent with requirements of

the Fourth Term Municipal Stormwater NPDES Permit to which the County, District and City are all parties. Please submit WQP for review and approval to OC Public Works / Environmental Resources, Attn: Duc Nguyen (714) 955-0676, at Duc.Nguyen@ocpw.ocgov.com or 2301 North Glassell Street, Orange, California 92865.

Response: The area of imperviable improvements (i.e. the AC walkway and bridge within OCFCD right of way is approximately 2,000 s.f. and therefore a WQMP is not required.

2. Any spillage of fuel, oil or hazardous materials from construction equipment or vehicles must be immediately and properly cleaned up and removed from the OCFCD right-of-way. For spills of significant volume, notifications must be immediately made to OC Public Works/Water Quality Compliance for assessment of appropriate corrective action. Contaminated soil, sand or other material, and hazardous wastes generated from the cleanup must be disposed of by approved methods.

Permittee assumes full responsibility for costs to investigate extent of contamination, cleanup, waste removal and implementation of an approved remedial action plan for the release of any wastes or hazardous materials that result in soil, surface water and groundwater contamination. Notification to OC Public Works/Water Quality Compliance should be directed to (877) 89-SPILL. For emergency or after-hours spill notification, call (877) 89-SPILL or contact the Orange County Sheriff's Communications Control 1 by dialing 911.

Response: Comments noted and will be included in construction document specifications.

3. The following shall be included as general or specific notes on project plan construction sheets:

- Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.
- Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to the streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
- Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.
- All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed of in trash or recycle bins.
- Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit or the statewide General Construction Stormwater

Permit. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives, and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine / equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of such materials should occur in a specified and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.

- Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into construction sites is prohibited, as is discharging of contaminated soils via surface erosion. Discharging of non-contaminated groundwater produced by de-watering shall comply with National Pollutant Discharge Elimination System (NPDES) Permit No. CAG918002, R8-2009-0045 and R8-2007-0041 (general discharge permits for groundwater at sites within the San Diego Creek/Newport Bay Watershed) issued by the Santa Ana Regional Water Quality Control Board, and as said permit may be updated during the term of the construction.

Response: Comments noted and will be included in construction document specifications.

May 13, 2015

Sahar Parsi
Encroachment Permits
OC Public Works
300 N. Flower Street
Santa Ana, CA 92702-4048

JN 141597

Subject: Response to Final Plan Check Comments Permit 2014 – 00755

Thank you for providing the attached comments dated November 17 and 18, 2014. We intend to include the comments in the attachments to the Feasibility Study for the Kelvin Avenue Pedestrian Bridge Project. Following are our responses to comments from each of the commenting departments:

OC Infrastructure Programs – Flood Programs:

We have reviewed the Basis of Design Report dated March 24, 2015 for the proposed Kelvin Pedestrian Bridge over Barranca Channel (F09). Based on RBF's analyses and conclusion, the proposed pedestrian bridge does not worsen the existing hydrological or hydraulic conveyance capacity in Barranca Channel, OCFCD Facility No F09. From this perspective, the project is deemed acceptable from Flood Program Support for concept. These items need to be addressed in the separate construction for the Kelvin Pedestrian Bridge.

Response: Comment Noted. The Basis of Design Report will be amended and resubmitted as shown below, and this letter included as an attachment.

With respect to the Basis of Design report, comments are as follows:

Section 1 – Introduction

- 1st paragraph, 2nd sentence - Replace "flood hazard" with "flood plain".
- 2nd paragraph, 1st Sentence - Revise to read: "... maintained on its behalf by Orange County Public Works (OCPW)."

Section 2 – Hydrology

- 1st paragraph, 1st sentence - Revise to read: "... maintained on its behalf by Orange County Public Works (OCPW)."
- 2nd paragraph, 1st Sentence – Revise to read: "... a peak flow rate for San Diego Creek at the confluence with Barranca Channel ..."

Response: The above listed edits are now included.

Section 5 – Conclusions and Recommendations

- Within the second paragraph, the report presumes under ultimate conditions the channel will be constructed within existing right-of-way as an open concrete rectangular channel (U channel) with 14 foot wide maintenance roads along each side.
- For the ultimate channel configuration, neither confinement to existing right-of-way nor the presumed geometric configuration identified or depicted in the Kelvin Bridge – Elevation detail provided may be pursued by OC Public Works on behalf of OCFCD.

Response: Comment Noted. The report does not presume to confine the ultimate configuration to the existing R/W or a specific cross-section. The intent of the second paragraph is to convey that the existing limitations of R/W and dual-side maintenance access are accommodated with the proposed Kelvin Pedestrian Bridge.

- Also within the second paragraph, the report recommends that the soffit elevation of the proposed pedestrian bridge be designed a minimum of six inches above the existing top of channel bank. (Said 6" clearance is also depicted in the Kelvin Bridge – Elevation detail provided and references a Bridge Memo dated 1/30/5.)

Response: The report now shows a recommendation for one-foot of vertical clearance over the existing channel bank. The elevation detail is revised.

- Per Caltrans Bridge Design Details dated June 1990, clearance between the top of slope and soffit of the bridge should be about three feet, but may be as little as two feet. As such, compliance or reasoning for divergence needs to be provided.

Response: Discussion on proposed freeboard has been provided in a separate section of the report.

Hydraulics

- Freeboard – For non-leveed condition, the final design of the pedestrian bridge needs to meet the minimum freeboard requirements (1.5') per addendum #3 of the current OCFCD Design Manual. For leveed conditions, FEMA regulations control – ie: 2 feet of freeboard for facilities where water surface elevation is not more than 2-feet above surrounding ground.

Response: Discussion on proposed freeboard has been provided in a separate section of the report. The channel is an incised/excavated channel (no levees), therefore the FEMA regulations for leveed channels do not apply.

Maintenance

- OCFCD security and maintenance access to its facility.
- City will bear responsibilities to construct, operate, and maintain the trail, pedestrian bridge and amenities within OCFCD right-of-way – including:
- Removal of debris, trash, and graffiti within, upon, under and over OCFCD's right-of-way.
- City's use of OCFCD's right-of-way shall be non-exclusive and OCFCD reserves the right to use the property as necessary to access, construct, reconstruct, widen and maintain the flood control facility.
- City will need to bear the cost and expense for the repair, relocation, and/or replacement of City's improvements within OCFCD's right-of-way.

Response: Comments Noted. The Basis of Design Report includes this letter so that this criteria will be identified as the project moves into final design phase.

Indemnification/Liability

- The City will be required to indemnify OCFCD from any damages, losses, fines, claims, etc. in connection to the proposed improvements and activities within, upon, under, or over OCFCD right-of-way.

Response: Comment Noted. The Basis of Design Report includes this letter so that this criteria will be identified as the project moves into final design phase.

OC Operations & Maintenance:

O&M has no further comments

Response: To be provided in final design activities.

May 21, 2015

Email: dbrandt@rbf.com
lthai@ci.irvine.ca.us

City of Irvine
One Civic Center Plaza
Irvine, CA. 92612

Attn: David Brandt

Re: Plan Check Review #4 – Permit: 2014-00755

Dear Mr. Brandt

Your request for the conceptual review of a pedestrian bridge over Barranca Channel (F09), West of Kelvin Avenue, North of Siglo, near Northwest of Jamboree Road in Irvine within a portion of Orange County Flood Control District's Barranca Channel (F09) right-of-way, was reviewed by Orange County Public Works reviewers.

Provided Information was satisfactory and there is no further comments regarding this subject. Permit 2014-00755 will be closed and if you decide to proceed with this project, please submit a new permit application and provide (7) sets of construction plans and all related documents to Encroachment Permits. Please feel free to contact me at 714-667- 8838, if you have any further questions or concerns.

Sincerely,

Sahar Parsi

Encroachment Permits

**ADDENDUM TO THE
IBC VISION PLAN AND MIXED USE OVERLAY ZONING CODE
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT
(SCH No. 2007011024)
FOR THE**

Kelvin Avenue Pedestrian Bridge Project

LEAD AGENCY:



City of Irvine

One Civic Center Plaza
Irvine, CA 92606

Contact: Ms. Lisa Thai
949.724.7384

PREPARED BY:

RBF Consulting

14725 Alton Parkway
Irvine, California 92618

Contact: Mr. Alan Ashimine
949.472.3505

June 2015

JN 141597

ATTACHMENT 3

This document is designed for double-sided printing to conserve natural resources.



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1.0 INTRODUCTION AND SUMMARY

1.1 PURPOSE OF ADDENDUM

Pursuant to the California Environmental Quality Act (CEQA) Public Resources Code section 21000 et. seq. (CEQA), this Addendum is prepared to address potential environmental impacts of the Kelvin Avenue Pedestrian Bridge Project over Barranca Channel within the Irvine Business Complex (IBC). This document is an Addendum to the IBC Vision Plan and Mixed Use Zoning Code Final Program Environmental Impact Report (EIR) which was certified by the Irvine City Council on July 13, 2010 (SCH No. 2007011024) (referred to hereafter as the "IBC EIR"). These documents serve as the environmental review of the proposed Kelvin Avenue Pedestrian Bridge Project, as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 CCR Section 15000 et. seq. (CEQA Guidelines), and the City of Irvine procedures for CEQA implementation.

As described herein, there are no new significant impacts resulting from the current design changes of the proposed project, nor are there any substantial increases in the severity of any previously identified environmental impacts. The proposed project's effects were covered in the IBC EIR. All feasible mitigation measures and alternatives have been incorporated into the proposed project.

1.2 USE OF AN ADDENDUM TO A PREVIOUSLY CERTIFIED EIR

To ensure that individual projects are within the scope of the previously certified IBC EIR and that no new significant impacts would result, the City reviews each application in accordance with Sections 15162 and 15164 of the CEQA Guidelines. When necessary, additional environmental analysis is completed consistent with Sections 15162 through 15164, including EIR Addendums, Supplemental EIRs, or Subsequent EIRs. In addition, the proposed zoning ordinance specifies master plans, conditional use permits or other discretionary review processes to ensure that all aspects of proposed projects, including land use compatibility, are analyzed.

CEQA Guidelines Section 15164 states that: "The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred." Pursuant to Section 15162 of the CEQA guidelines, no subsequent EIR may be required for the project unless the City determines, on the basis of substantial evidence, that one or more of the following conditions are met:

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
 - (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
 - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
 - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:



- (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

1.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION

The proposed project is located within the IBC, or Planning Area 36, of the City of Irvine in central Orange County. The IBC consists of a range of industrial, office, commercial, and residential uses covering approximately 2,800 acres in the western portion of the City of Irvine.

Due to shifts in land use, the City conducted regional efforts to update planning policies for the IBC to allow for residential uses in what were historically industrial areas. The result was the IBC EIR certified by the Irvine City Council on July 13, 2010. The document set forth a framework for new residential uses within the IBC to ensure proper integration of a mixed-use community comprised of residential, office, industrial, and commercial uses. The IBC EIR reviewed and analyzed the land use policy changes and covered the cumulative impacts of the land use shift.

The IBC EIR analyzed an increase in total residential units in the IBC from 9,015 to 15,000 units, a difference of 5,985 units, along with a corresponding reduction of nonresidential office equivalency square footage. In addition, a total of 1,598 density bonus units, in addition to 440 existing, approved, or under construction would be allowed in accordance with state law, for a total 17,038 units. The IBC Vision Plan outlined the City's policies and objectives for addressing residential and mixed-use development within the IBC, to be incorporated as a new element in the *City of Irvine General Plan* (General Plan). The framework for the IBC Vision Plan provided the land use and urban design structure by which new residential development would be organized.

As they relate to the proposed Kelvin Avenue Pedestrian Bridge Project, the IBC Vision Plan provides a series of objectives related to improving pedestrian and bicycle circulation in the project area. Figure 3-4, *IBC Vision Plan Framework* and Figure 3-5, *Proposed IBC Infrastructure Improvements*, of the IBC EIR identified several infrastructure improvements including pedestrian bridges, creek walks, sidewalk completion, Class I bikeways, and on-street bikeways. The pedestrian bridges identified in the IBC Vision Plan consist of five pedestrian bridges (four across Jamboree Road and the fifth across the San Diego Creek at the terminus of McGaw Avenue).

Most of the potentially significant environmental impacts identified in the IBC EIR were determined to be less than significant or were reduced to a level that is considered less than significant through either the adoption of mitigation measures or the incorporation of project revisions that would avoid or substantially lessen significant impacts. Impacts related to Air Quality, Noise, Land Use and Traffic, however, were identified as significant and unavoidable in the IBC EIR. For those impact areas, the City adopted a Statement of Overriding Considerations.

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

This document, prepared pursuant to CEQA, constitutes an Addendum to the IBC EIR. These documents serve as the environmental review of the proposed project, as required pursuant to the provisions of CEQA, the CEQA



Guidelines, 14 Cal. Code Regs. section 15000 et seq. (CEQA Guidelines), and the City of Irvine procedures for CEQA implementation.

This Addendum relies on use of an Environmental Checklist Form, as suggested in Section 15063 (d)(3) of the State CEQA Guidelines. The form includes a checklist to indicate whether the conditions set forth in Section 15162 of the State CEQA Guidelines that would require a subsequent or supplemental EIR are met, and whether there are new significant impacts resulting from the project. The Environmental Checklist Form is used to review the potential environmental effects of the proposed project for each of the following areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The Environmental Checklist Form prepared for this project is found in Appendix A of this Addendum. It contains a series of questions about the project for each of the impact categories. There are six possible responses to each of the questions included on the Environmental Checklist Form as follows:

1. Substantial Change in Project Requiring Major EIR Revisions;
2. Substantial Change in Circumstances Requiring Major EIR Revisions;
3. New Information Resulting in New Significant Impacts;
4. New Information Resulting in More Severe Impacts;
5. New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts;
6. Less Than Significant Impact/No Substantial Change From Previous Analysis.

1.5 SUMMARY OF FINDINGS

Based on the Environmental Checklist and supporting environmental analysis, the proposed project would not result in any new significant impacts that were not previously addressed in the IBC EIR, nor are there any substantial increases in the severity of any previously identified environmental impacts. The scope of the installation of a prefabricated pedestrian bridge over the Barranca Channel and trail construction/modification do not result in any new impacts that are not already covered in the IBC EIR, and none of the conditions set forth in Section 15162 of the



CEQA Guidelines which would otherwise require preparation of a Subsequent or Supplemental EIR are met in this instance.



2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regionally, the project site is located within the western portion of the City of Irvine (City), within the central Orange County; refer to [Exhibit 2-1, Regional Map](#). Locally, the project site is located within the IBC, Planning Area 36, between the Main Street and Kelvin Avenue to the west of Jamboree Road. Barranca Channel traverses the site in a northwest-southeast direction; refer to [Exhibit 2-2, Site Vicinity](#). The project site is located approximately 0.35 miles northwest of the San Diego Creek, approximately 0.35 miles northeast of San Diego Freeway (Interstate 405), and approximately 1.5 miles southeast of Costa Mesa Freeway (State Route 55).

The project site is surrounded by residential (apartment buildings), commercial (office buildings), and transportation (roadway) uses. Additionally, a parking structure is located to the east of Siglo Street and south of Barranca Channel.

2.2 PROJECT DESCRIPTION

The proposed project consists of the installation of a pedestrian bridge (Kelvin Pedestrian Bridge) and trail improvements/modifications to promote pedestrian connectivity within the project area. Specifically, the bridge would be constructed over Barranca Channel, with a new pedestrian path along the Barranca Channel and between the channel and Kelvin Avenue to the northwest border of Kelvin Courts Apartments; refer to [Exhibit 2-3a through Exhibit 2-3e, Conceptual Site Plan](#). It should be noted that [Exhibit 2-3e, Conceptual Site Plan View Locations](#) provides photographs of existing conditions at various locations along the project site. Proposed improvements are described in additional detail below.

KELVIN PEDESTRIAN BRIDGE

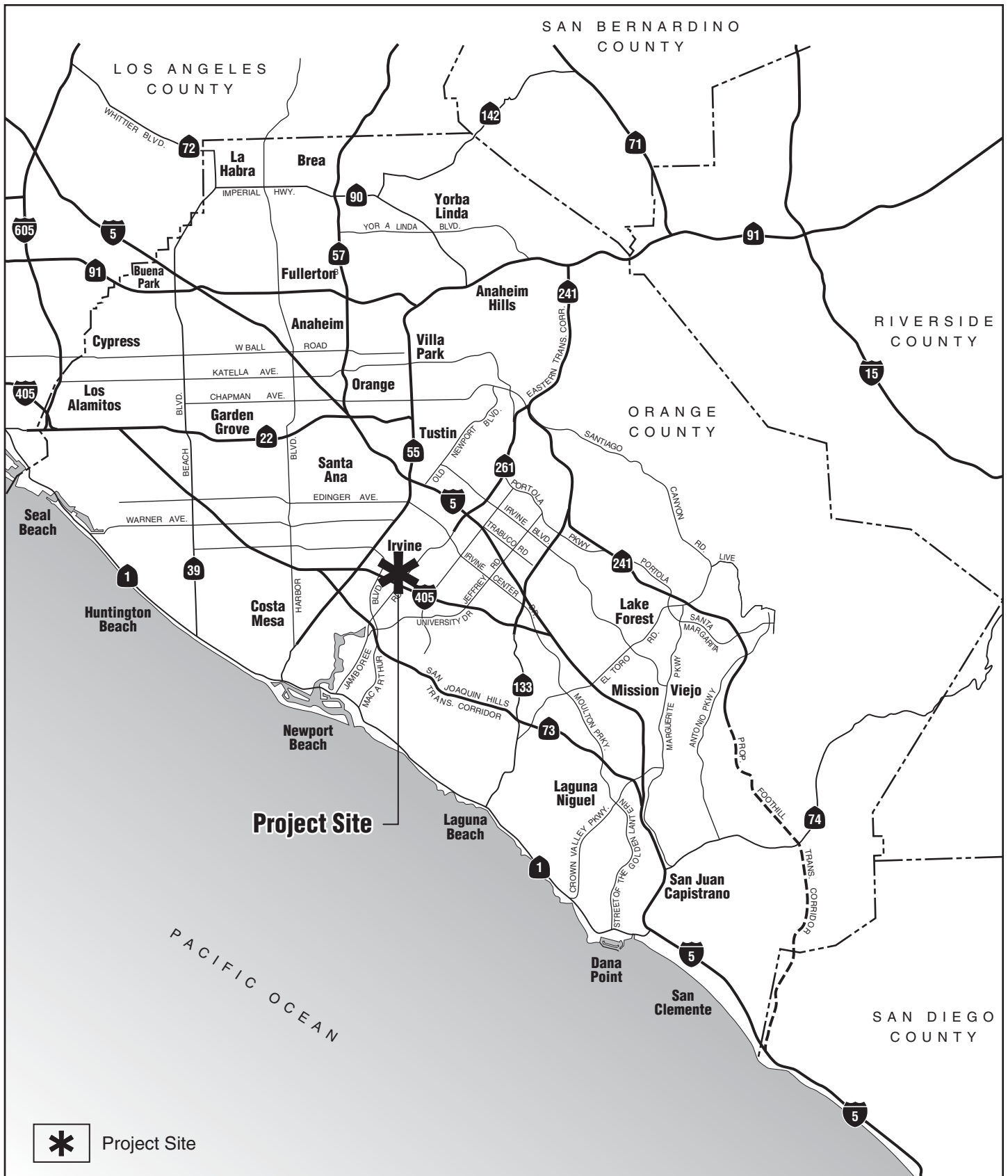
The proposed Kelvin Pedestrian Bridge would span over the Barranca Channel in the reach between Derian Avenue and Jamboree Road. Barranca Channel is owned by Orange County Flood Control District (OCFCD) and maintained on its behalf by Orange County Public Works (OCPW) and is a tributary to San Diego Creek. The existing channel is a rip-rap lined trapezoidal channel 56' 6" inches wide, 12' 6" inches tall, with a 16-foot bottom width. The channel has 17-foot wide unpaved access roads on both sides immediately adjacent to the channel. The proposed bridge location is surrounded by multi-family residential uses to the north and south.

Based on the existing hydraulic conditions, the water depth is 9.9 feet at the proposed bridge location. The profile of the proposed pedestrian bridge would provide 2.6 feet of freeboard. Immediately adjacent to the bridge, the access roads would have a width of 14 feet. The proposed bridge is a 62-foot span prefabricated truss bridge on spread footings. The bridge and pedestrian access paths would be built entirely within the OCPW right-of-way, and no additional right-of-way would be required.

The bridge span and location have been developed taking into consideration potential future improvements to Barranca Channel. A potential future configuration of the channel to provide additional capacity would be a rectangular channel, with a width of 50 feet and a height of 12 feet with a soft or vegetated invert. The future channel would be designed to take into account the surcharge loads from the bridge footings, due to the close proximity of the footings to the channel walls.

Prefabricated Truss Bridge Geometry and Design

The proposed bridge would span 62 feet and have a width of 8 feet. The deck would either be a 4-inch thick concrete deck slab or wooden planks. For ease of maintenance, the bridge would be made of weathering steel so that no painting is required. The bridge would have pedestrian handrails 4' 6" tall made of vertical pickets.



NOT TO SCALE

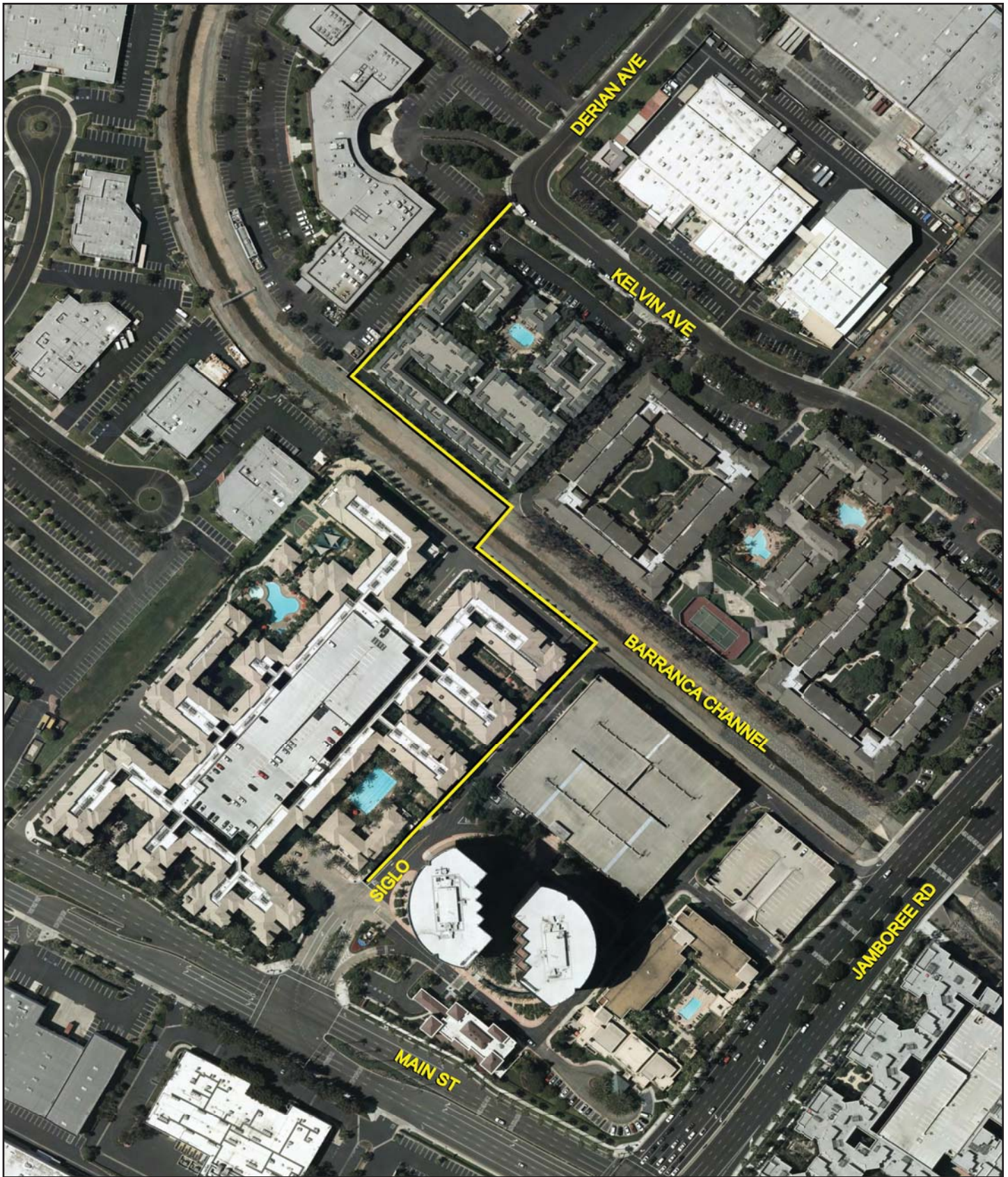


06/15 • JN 141597

ADDENDUM TO THE FINAL EIR
KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

Regional Map

Exhibit 2-1



- Proposed Improvement

NOT TO SCALE

RBF
CONSULTING
A Baker Company

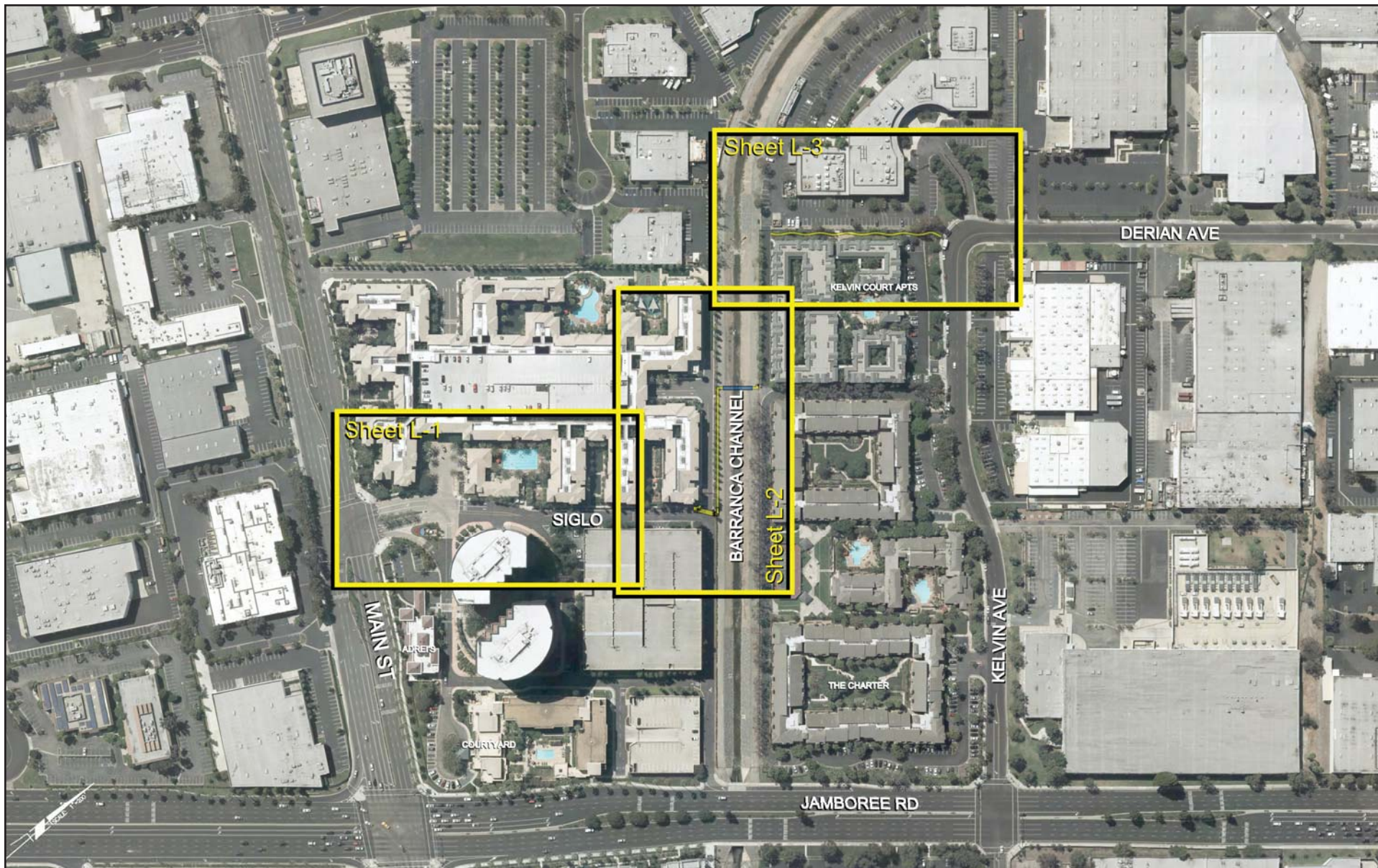


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ADDENDUM TO THE FINAL EIR
KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

Site Vicinity

Exhibit 2-2



NOT TO SCALE

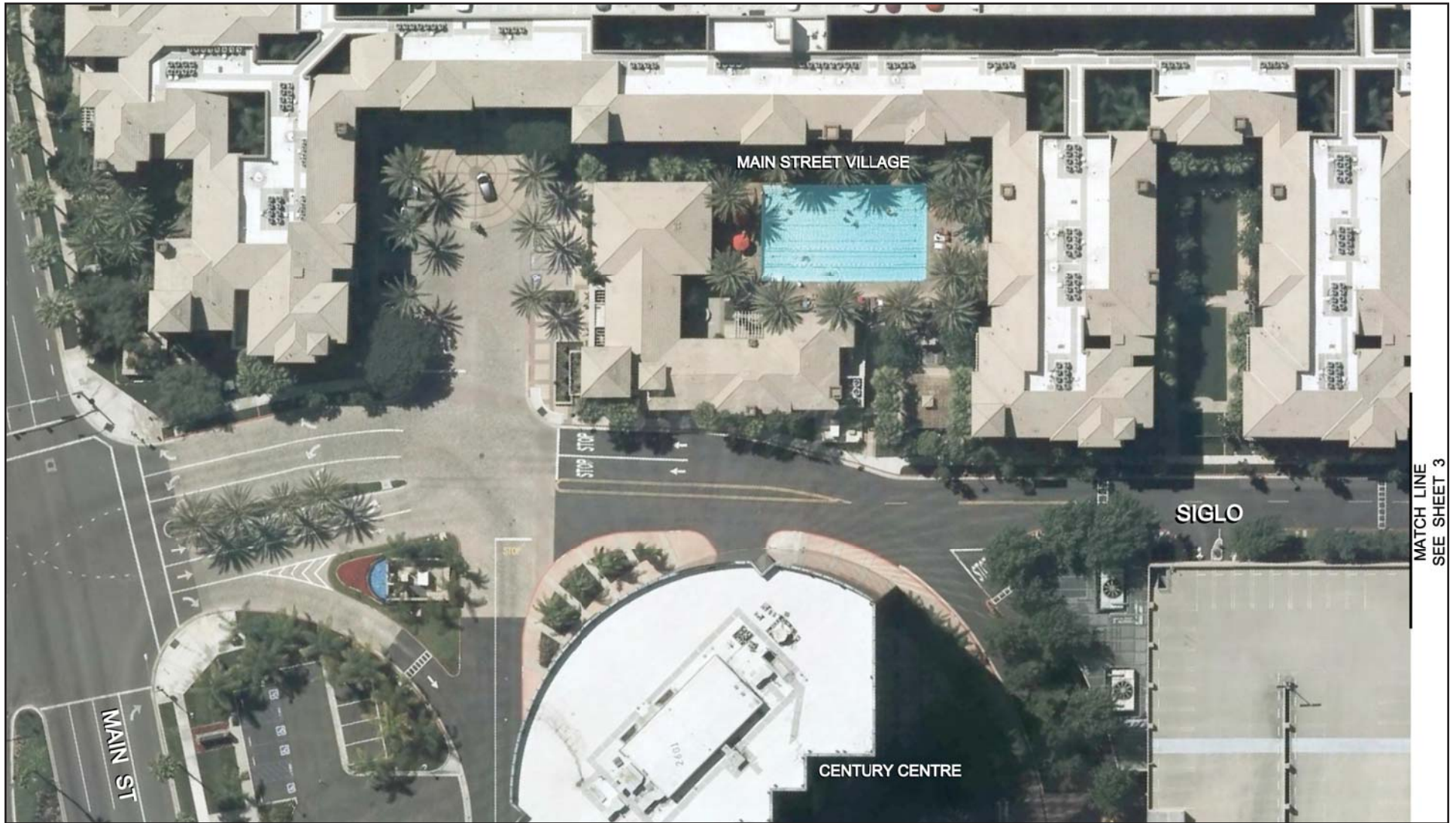


06/15 • JN 141597

ADDENDUM TO THE FINAL EIR
KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

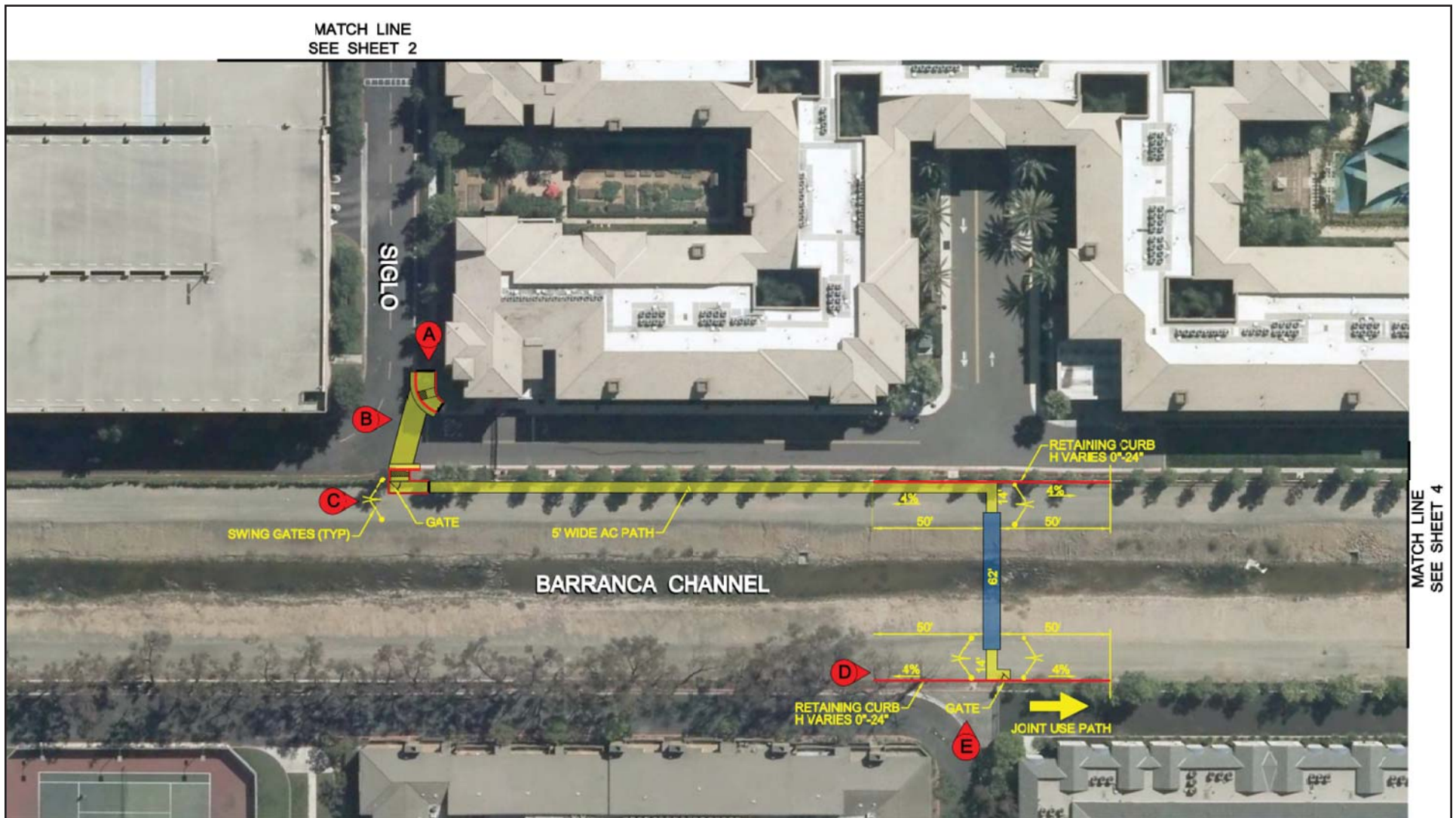
Conceptual Site Plan

Exhibit 2-3a



NOT TO SCALE





NOT TO SCALE

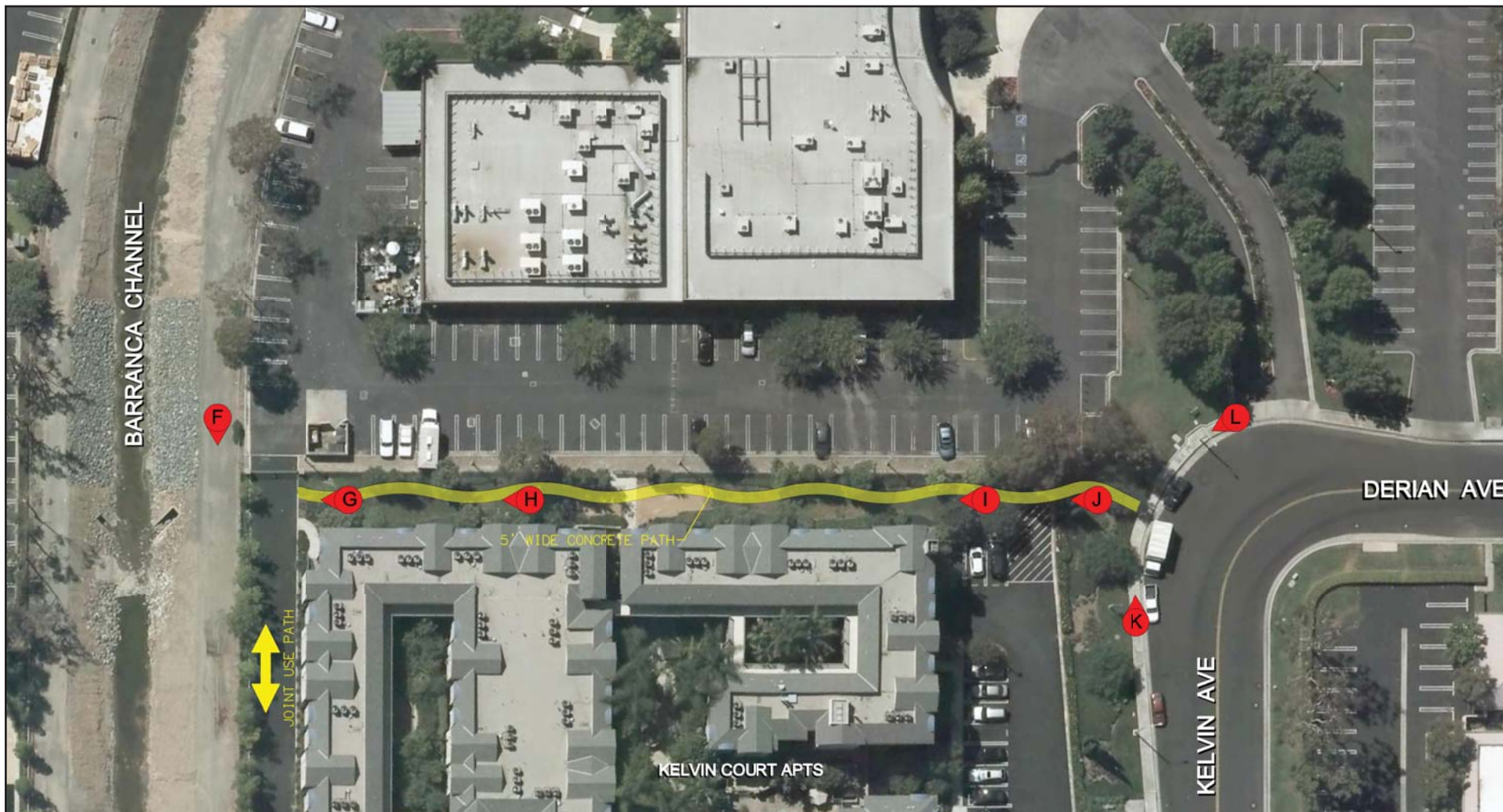


06/15 • JN 141597

ADDENDUM TO THE FINAL EIR
KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

Conceptual Site Plan (Sheet L-2)

Exhibit 2-3c



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ADDENDUM TO THE FINAL EIR
KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

Conceptual Site Plan (Sheet L-3)

Exhibit 2-3d



VIEW A



VIEW B



VIEW C



VIEW D



VIEW E



VIEW F



VIEW G



VIEW H



VIEW I



VIEW J



VIEW K



VIEW L



The depth of the concrete slab plus floor beam would be 1 foot. The soffit elevation of the bridge would be designed as minimum of one-foot above the existing top of channel bank. Therefore the access roads on each side of the bridge would be 2 feet higher at the bridge than in other portions of the channel. The access road would need to ramp up to the bridge for 50 feet at a grade of 4%, to obtain the required elevation at the bridge.

Abutment design would be completed as part of the construction documents for the bridge and pathway. A truss bridge manufacturer would be selected to provide the design of the superstructure and delivery of the bridge to the jobsite. The bridge and abutments would be designed in accordance with current Caltrans design criteria: American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Design Specifications with the Caltrans Amendments, the latest edition of the Caltrans Seismic Design Criteria and the LRFD Guide Specifications for the Design of Pedestrian Bridges. In accordance with these codes, the bridge would be designed for a pedestrian live load of 90 lbs per square feet. Vehicle live loading would not be considered because of the bridge's narrow width. Bollards would be placed at either end of the bridge so that a vehicle is not able to be driven onto the bridge.

Prefabricated Truss Bridge Construction

The existing maintenance road adjacent to the existing trapezoidal channel is approximately 17 feet wide and accessed from a driveway at Jamboree Road. The bridge superstructure would be placed on a truck in one piece and delivered to the site. A crane would be placed on the maintenance road and would lift the bridge off the truck and set the bridge in place on the bridge abutments.

In the future, to facilitate construction of the future rectangular channel, the spread footings may need to be removed. The bridge would need to be temporarily relocated during construction of the new channel. The rectangular channel can then be built, the spread footings would be reconstructed, and the bridge can be replaced onto the new footings.

Currently, no utilities exist within the limits of the proposed pedestrian bridge crossing over the Barranca Channel. Nighttime security lighting may be installed along the prefabricated pedestrian bridge to provide security for users of the bridge.

TRAIL IMPROVEMENTS

The project proposes to construct ancillary trail improvements on both sides of the proposed bridge. The proposed trail improvements are as follows:

- Trail Improvements South of the Proposed Bridge – These trail improvements extend along the southerly limit of the Barranca Channel maintenance road from Siglo Street to the proposed bridge location. As shown on Exhibit 2-3c, Conceptual Site Plan (Sheet L-2), this proposed trail would be approximately 260 feet in length and 5 feet in width and would be paved with asphalt concrete (AC). Additionally, two Americans with Disabilities Act (ADA)-accessible curb ramps and a crosswalk would be constructed to provide a pedestrian crossing to and from the Barranca Channel at Siglo Street. In addition, a gate would be installed at the entrance of the sidewalk along the Barranca Channel.
- Trail Improvements North of the Proposed Bridge – These trail improvements would be constructed along the northwestern border of the Kelvin Court Apartments. The proposed sidewalk would start near the Barranca Channel and extend to the southwest corner of Kelvin Avenue and Derian Avenue, meandering through an existing landscaped area of the apartment property. As shown on Exhibit 2-3d, Conceptual Site Plan (Sheet L-3), this proposed meandering trail would be approximately 370 feet in length and 5 feet in width, with AC paving. The City of Irvine maintains an existing easement through this area; as such, right-of-way acquisition would not be required for these improvements.



- Between the proposed trail and the bridge, trail users would travel along an existing paved access road along the southwesterly boundary of the Kelvin Court Apartments, which would be utilized as a joint use path. In addition, a gate would be installed where the joint use path and Barranca Channel converge.

PERMITS

The existing channel is maintained by the OCPW. The area has limited access and temporary construction limits next to the channel would be required. This area is subject to jurisdiction and approval from the following agencies:

- City of Irvine
- Orange County Public Works

2.3 SUMMARY

The project proposes bridge and trail improvements that are consistent with the objectives of the IBC Vision Plan to improve pedestrian connectivity in the IBC. The proposed project would create a new point of access over Barranca Channel within an area surrounded by residential and employment-generating uses, and would promote and encourage the use of existing and proposed regional trails within the IBC, as identified within the IBC Vision Plan. According to the IBC Element of the *General Plan*, the vision of the IBC is to create a system of new public parks, urban plazas, open spaces, and private or public recreation areas that are interconnected by streets, bikeways, and trails. To provide enhanced pedestrian connectivity to the IBC, new bridges were proposed in the IBC EIR to create enhanced pedestrian connections within the IBC and to the wider system of trails. Additionally, the Vision Plan suggests a more “pedestrian oriented, urban living experience” within the emerging residential and mixed-use districts of the IBC. Although the proposed Kelvin Pedestrian Bridge is not identified as a future improvement within the IBC EIR, it is consistent with several other pedestrian bridges proposed to cross Jamboree Road and the San Diego Creek. As such, this Addendum covers the incorporation of the Kelvin Avenue Pedestrian Bridge as a transportation infrastructure improvement intended to improve local and regional connectivity within the IBC.



3.0 ENVIRONMENTAL SETTING

This Chapter presents the environmental setting for the proposed project site and surrounding areas. The setting is described as it relates to potential environmental effects associated with the proposed project. The existing setting is also shown in Exhibit 2-2. A discussion of the potential environmental impacts is provided in Chapter 4.

3.1 Aesthetics

The project site is located between Main Street and Kelvin Avenue to the west of Jamboree Road, within the eastern area of the IBC. The project site consists of portions of the maintenance road along Barranca Channel, a section of Barranca Channel, and a landscaped area located at the northwest border of the Kelvin Court Apartments. The existing Barranca Channel is a tributary to San Diego Creek and is a rip-rap lined trapezoidal channel 56' 6" inches wide, 12' 6" inches tall, with a 16 feet bottom width. The channel has 17-foot wide maintenance roads on both sides immediately adjacent to the channel. The channel and maintenance roads are bounded by a chain-link fence, and surrounded primarily by multi-family residential uses.

Generally, the site vicinity is highly urbanized and void of unique aesthetic resources or sensitive scenic vistas. The site is surrounded by numerous multi-level apartment buildings (e.g., Main Street Village Apartments, Kelvin Court Apartments, and Charter Apartments) which range in height from approximately three to four stories. In addition, the Century Center, which includes two twelve-story office buildings along with a six-story parking structure, is located at northeast corner of Main Street and Siglo Street in the vicinity of the project site. Thus, with the high level of development that has occurred in the project area, there are no significant visual resources on or in the vicinity of the site.

3.2 Agriculture and Forest Resources

The IBC does not contain any land zoned for agriculture or forestry. The project site is currently developed and no agricultural or forest resources exist on the project site or in the vicinity.

3.3 Air Quality

The project site shares the same air quality characteristics as the IBC and the City of Irvine, within the South Coast Air Basin (SoCAB). The SoCAB falls within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), and is subject to rules and regulations of the SCAQMD. The existing project site consists of an existing roadway (Siglo Street), Barranca Channel, and an existing landscaped area associated with the Kelvin Court Apartments. None of the project site includes stationary equipment generating air pollutant emissions. However, nominal amounts of air pollutant emissions occur due to maintenance activities (i.e., periodic maintenance vehicle trips along Barranca Channel, landscape maintenance at the Kelvin Court Apartments).

3.4 Biological Resources

Generally, the project area has been graded and developed and is void of sensitive biological resources. While the area along the northwesterly boundary of the Kelvin Court Apartments is landscaped, it is limited to ornamental vegetation. The Barranca Channel is an earthen bottom/bank drainage facility with rip-rap placed in various locations in the project area. While the majority of the banks are unvegetated, small and sporadic patches of riparian vegetation exist along the bottom of the channel. However, bridge construction activities would not encroach into the channel bottom or banks; thus, there are no native, sensitive, or important biological resources that would potentially be affected by the project.



3.5 Cultural Resources

There are two historical resources and three archaeological resource sites documented within the IBC and described in the IBC EIR. Neither historical resource site is considered historically significant nor are they located within or near the proposed project site. The three archeological sites are in the southern portion of the IBC and are not near the proposed project site.

3.6 Geology and Soils

Based on the IBC EIR, the project site is located within the Tustin Plain, which is part of the coastal section of the Peninsular Range Province, a geomorphic province that extends 900 miles south from the Los Angeles basin to the tip of Baja California. The Peninsular Ranges Province is characterized by elongated northwest-trending mountain ridges separated by sediment-floored valleys. The Tustin Plain separates the Santa Ana Mountains, to the north and east, from the San Joaquin Hills to the south. Sediments eroded from the Santa Ana Mountain and the San Joaquin Hills have been deposited by streams emanating from these highlands (Santiago Creek, Peters Canyon Wash, Rattlesnake Canyon Wash, San Diego Creek, El Modena Canyon, etc.) and the lower reach of the Santa Ana River to produce the broad, complex, alluvial fan of the Tustin Plain. This area consists of relatively flat-lying unconsolidated to semiconsolidated sediments that are approximately 30 to over 1,200 feet thick beneath the IBC area, generally thickening to the northwest. These deposits include strata of the upper member of the Pliocene Fernando Formation (approximately 2 to 3 million years old) and Pleistocene (10,000 to 2 million years old) older alluvium. The near-surface, unconsolidated Holocene sediments beneath the site are between 10 and 20 feet thick and predominately consist of young alluvial fan deposits. Soil development within the IBC includes well-drained soils of the Alo, Balcom, and Myford Series, which are characteristic of upland and marine terrace deposits, and poorly drained soils of the Chino and Omni Series and Thapto-Histic Fluvaquents, which are characteristic of alluvial fan, floodplain, and coastal basin deposits.

No active surface earthquake faults are mapped or known to cross the IBC area, and the site is not in an Alquist-Priolo Earthquake Fault Zone. The known regional active and potentially active faults that could produce the most significant ground shaking within the IBC are the San Joaquin Hills, Newport-Inglewood, and Whittier-Elsinore Faults. The Newport-Inglewood Fault zone extends northwest from offshore Newport Beach to Inglewood, as close as approximately 3.5 miles to the southwest of the IBC, with the offshore portion as close as approximately 7.5 miles south. The Newport-Inglewood fault zone is broad, and is considered seismically active with numerous recorded earthquakes of generally small size.

As with all of Orange County, the IBC area is in the California Building Code Seismic Zone 4. This is the highest classification of the four zones in the United States, with the most stringent requirements for building design. The project area is also in the City of Irvine Seismic Response Area (SRA) 1, which is predominantly characterized by soft soils and high groundwater. In SRA 1, liquefaction is the primary potential seismic hazard. The California Geological Survey seismic hazard maps also delineate the subject site and surrounding areas as being potentially liquefiable.

Based on the presence of alluvial materials within the IBC, there is a potential for expansive soils. Expansive soils shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand.

Numerous geotechnical investigations within the IBC have encountered severely corrosive soils, as classified by Uniform Building Code Table 19-A-3. Corrosive soils contain chemical constituents that may cause damage to construction materials such as concrete and ferrous metals.

Subsidence, the phenomenon of widespread land sinking, is generally related to substantial overdraft of groundwater or petroleum reserves from underground reservoirs. The project does not have an oil field or drinking water



production wells on-site and has not been used for the extraction of either resource; therefore, subsidence is not considered a potential hazard on the project site.

The groundwater table is relatively shallow within the IBC area, and groundwater may come into contact with surface waters by seeping through channel bottoms, cracks in storm drain pipes, and through groundwater dewatering activities.

3.7 Greenhouse Gas Emissions

Generally, the project area shares Greenhouse Gas (GHG) emissions characteristics similar to the IBC and the City of Irvine. The existing project site consists of an existing roadway (Siglo Street), Barranca Channel, and an existing landscaped area associated with the Kelvin Court Apartments. None of the project site includes stationary equipment generating GHGs. However, nominal amounts of GHG emissions occur due to maintenance activities (i.e., periodic maintenance vehicle trips along Barranca Channel, landscape maintenance at the Kelvin Court Apartments).

3.8 Hazards and Hazardous Materials

Based on the IBC EIR, IBC encompasses an area that includes numerous businesses that have had historical releases of hazardous substances to the environment and/or are undergoing environmental investigation or remediation. Certain features could influence the impact of hazardous material releases occurring within the IBC, including prevailing wind patterns and the direction of groundwater flow.

According to the State Water Resources Control Board (SWRCB) Leaking Underground Storage Tanks (LUST) GeoTracker website and Department of Toxic Substances Control (DTSC) EnviroStor website, the proposed project site is not listed in any of their databases. However, the GeoTracker website lists several LUSTs within the project vicinity. With the exception of Former Great Lakes Chemical Corp. (located at 17461 Derian Avenue, directly to the northeast of the project site), other adjacent reported facilities have a "Completed-Case Closed" status. The former Great Lakes Chemical Corp. has been under remediation as of January 2012. Potential contaminants of concern are chlorinated hydrocarbons, tetrachloroethylene (PCE), and trichloroethylene (TCE) that may have affected groundwater.

3.9 Hydrology and Water Quality

The IBC and project site are within the western portion of the San Diego Creek watershed, which is part of the larger Santa Ana River basin. The San Diego Creek Watershed covers 112.2 square miles in central Orange County, of which the IBC project site comprises 3.9-percent of the total watershed area. Its main tributary, San Diego Creek, drains from the Santiago Hills and outlets into the Upper Newport Bay. Watershed uses are generally comprised of agricultural, vacant, developed and recreational land uses. The entire western portion of the watershed is developed, with development spreading to the east and south.

The Santa Ana Regional Water Quality Control Board (RWQCB) generally divides the San Diego Creek into two reaches: Reach 1 extends from the Upper Newport Bay outlet of the creek to the crossing at Jeffrey Road, and Reach 2 extends from Jeffrey Road to its headwaters within the City of Lake Forest. Specifically, runoff from the IBC area ultimately discharges into Reach 1 of San Diego Creek, which flows generally along the eastern boundary of the Complex.

The majority of the local drainage systems within the IBC (approximately 75 percent) discharge to one of the three regional facilities within the area: Lane Channel (designated F08 by the Orange County Flood Control District [OCFCD]), Armstrong Channel (F08S01), and Barranca Channel (F09), all of which ultimately discharge into San Diego Creek Reach 1.



The project site is located on and in the vicinity of Barranca Channel. In general, the Barranca Channel drains the central and eastern portions of the IBC, in addition to portions of the Cities of Tustin and Santa Ana. Overall, the Barranca Channel drains 1,337 acres, and roughly 500 acres (or 37 percent) are within the IBC. At its downstream location, Barranca Channel confluences with San Diego Creek at Main Street, approximately 1,800 feet upstream of the Lane Channel confluence. From there, it continues upstream in a northwest direction as a rip-rap lined trapezoidal soft bottom section. It then crosses Jamboree Road as a double reinforced concrete box (RCB), and then transitions back to an earthen trapezoidal channel that parallels Kelvin Avenue. The flood control facility continues in this fashion for approximately 1,350 feet before curving northeasterly at the Atchison, Topeka and Santa Fe (AT&SF) railroad crossing. It then continues north, parallel to Von Karman Avenue until it reaches Barranca Parkway, south of the Tustin Legacy development at the former Marine Corps Air Station (MCAS) Tustin, as a rip-rap lined channel until it reaches Red Hill Avenue. The rip-rap lined channel then transitions into an RCP and turns northeasterly to continue upstream along Red Hill Avenue.

In addition to the three major drainage channels listed above, local storm water runoff within the IBC is collected by a series of smaller drainage channels and underground storm drains that discharge into the tributary channels and into San Diego Creek. The project site is in an existing developing area and all drainage infrastructure is already in place. An existing 24" storm drain is located along Kelvin Avenue, and an existing catch basin is located at the intersection of Kelvin Avenue and Jamboree Boulevard. Additionally, an existing catch basin is located at Siglo Street approximately 370 feet southwest of the project site. Currently, surface water on the site is either drained into Barranca Channel or directed by curbing into storm drains that discharge directly to San Diego Creek approximately 0.35-mile southeast of the site.

The portion of the project site which is along and over Barranca Channel is within Flood Hazard Areas identified in the City's Safety Element of the *General Plan* (City of Irvine 2012), and similarly is located within flood hazard and floodway areas as defined on the Flood Insurance Rate Map (FIRM) (FEMA 2009).

The proposed project site and surrounding areas are fully developed. The project site is not within a dam/levee inundation area, a tsunami hazard area, a seiche inundation area, or subject to mudflows as designated in the County of Orange *General Plan* and City of Irvine *General Plan*.

Geographically, the IBC is located within the Irvine Groundwater Management Zone of the lower Santa Ana River basin. As defined in the Basin Plan, the Irvine Groundwater Management Zone is generally bounded by Newport Bay and the San Joaquin Hills to the south/southwest, the Santa Ana Mountains to the east, and the Orange County Groundwater Management Zone to the north. The project site is situated over the Irvine Subbasin of the Orange County Main Groundwater Basin. The Orange County Water District (OCWD) manages the level of water in the Basin, including the Irvine Subbasin, by regulating the amount of water pumped out and by recharging water into the Basin.

The project site is not located in a groundwater recharge area. The site will not utilize groundwater for operation; water will be supplied by the local municipal water service. Due agricultural activities and the increasing urbanization in the watershed over the past 100 years, shallow groundwater within portions of the watershed contains high levels of nutrients and selenium. Groundwater levels in portions of the watershed are shallow and relatively close to the ground surface.

The Santa Ana RWQCB recognized the potential threat groundwater discharges may have on surface water quality, and began regulating discharges of groundwater into surface waters through National Pollutant Discharge Elimination Systems (NPDES) permits. Due to the concerns from short-term discharges of nitrogen and selenium into surface waters, a separate permit was issued by the RWQCB specific to the San Diego Creek and Newport Bay watersheds. Order No. 2004-0021 (superseded by Order No. R8-2007-0041 in 2007) recognized that while groundwater contained high levels of selenium, there were no feasible treatment technologies for reducing selenium concentrations in discharges. The Orange County Nitrogen Selenium Management Program (NSMP) was developed



to investigate alternative compliance approaches and develop an overall understanding and management plan for selenium and nitrogen as a result of groundwater discharges in the watershed.

3.10 Land Use and Planning

The project site is within Planning Area 36 that includes a mix of office, light industrial, commercial, and high-density residential uses. The project site and surrounding area are designated as "Urban and Industrial" by the City of Irvine *General Plan*. The project site is designated as "5.1 IBC Multi-Use" by the City of Irvine *Zoning Map* and surrounding area are designated as "5.3 IBC Residential" and "5.1 IBC Multi-Use" by the *Zoning Map*. The IBC Element of the *General Plan* outlines the framework for future development of the IBC as a mixed-use community. A portion of the proposed project alignment along Barranca Channel would be located within an area designated "Proposed Trail Adjacent to Canal" identified in the Figure N-2, IBC Vision, of the IBC Element of the *General Plan*. Additionally, the IBC Vision Plan provides a series of objectives related to improving pedestrian and bicycle circulation in the project area. Figure 3-4, *IBC Vision Plan Framework* and Figure 3-5, *Proposed IBC Infrastructure Improvements*, of the IBC EIR identified several infrastructure improvements including pedestrian bridges, creek walks, sidewalk completion, Class I bikeways, and on-street bikeways. The pedestrian bridges identified in the IBC Vision Plan consist of five pedestrian bridges (four across Jamboree Road and the fifth across the San Diego Creek at the terminus of McGaw Avenue). The Kelvin Pedestrian Bridge is not included in the IBC Vision Plan; however, it would be consistent with the five pedestrian bridges proposed in the IBC EIR.

3.11 Mineral Resources

The project area is fully developed with commercial/residential land uses and lacks valuable or important mineral resources or mining operations. No mineral recovery activities currently occur in the project area, and the project site is not underlain by any known mineral resources of value to the region and residents of the state.

3.12 Noise

Noise levels in the project area are influenced primarily by motor vehicle and air traffic. Motor vehicle noise from the San Diego Freeway (I-405), Jamboree Road, Main Street, and other local streets produces a steady source of ambient noise to the project area. In addition, air traffic at John Wayne Airport contributes to ambient noise on the project site. Noise levels of 60 to 70 Community Noise Equivalent Level (CNEL)¹ are common along arterials within the IBC. According to the IBC EIR, ADT volume levels along Jamboree Road, between Kelvin Avenue and Main Street were 53,259 and ADT volume levels along Main Street, between Siglo Street and Jamboree Road were 22,024 in 2008. According to the City of Irvine Noise Element, vehicular traffic noise levels along Jamboree Road between Alton Parkway and Main Street were determined to be 71.4 CNEL at 100 feet from centerline, and are projected to increase to 73.2 CNEL by 2020 buildout condition. Additionally, vehicular traffic noise levels along Main Street between Von Karman Avenue and Jamboree Road were determined to be 68.1 CNEL at 100 feet from centerline, and are projected to increase to 71.7 CNEL by 2020 buildout condition (City of Irvine 2012). Noise sources on the project site consist of vehicle traffic along Siglo Street, in addition to periodic maintenance vehicle trips along Barranca Channel and landscape maintenance at the Kelvin Court Apartments.

3.13 Population and Housing

The project site is surrounded primarily by multi-family residential development; however, there is currently no housing or associated population that occurs within site boundaries.

¹ The CNEL is an average of noise levels over a twenty-four (24) hour period. The measured energy equivalent level (Leq) is weighted for the hours when there is a greater sensitivity to noise. A weighting factor of 5 decibels is applied to the evening period (7 to 10 p.m.) and a weighting factor of 10 decibels is applied to the night time period (10 p.m. to 7 a.m.). The daytime Leqs between 7 a.m. and 7 p.m. are not weighted.



3.14 Public Services

Although the project site currently produces no demand for public services, the project site is served by the Orange County Fire Authority (OCFA) for fire protection services, the Irvine Police Department (IPD) for police protection services, and the Irvine Unified School District (IUSD) for school services. All parks and other public facilities that serve the IBC would also serve the project.

3.15 Recreation

The project site consists of a section of Barranca Channel, maintenance road along the Barranca Channel within project limits, and landscaped area at the northwest border of the Kelvin Court Apartments in the extension of Derian Avenue. There are no existing public or private recreational amenities on the site, and there is currently no demand for recreational facilities created by the project site.

3.16 Transportation/Traffic

The majority of the site is inaccessible to public vehicular traffic, with the exception of the portion of the site along Siglo Street. There is no use on-site that generates substantial vehicle trips. The Barranca Channel is gated and the only trips associated with it are occasional maintenance vehicle trips.

Intersections within 0.5-mile of the project site are as follow:

- Von Karman Avenue/McGaw Avenue
- Von Karman Avenue/Main Street
- Jamboree Road/McGaw Avenue
- Jamboree Road/Kelvin Avenue
- Jamboree Road/Main Street
- Jamboree Road/I-405 northbound ramps
- Jamboree Road/I-405 southbound ramps

For existing conditions, levels of service at intersections were calculated in the IBC EIR through application of the Intersection Capacity Utilization (ICU) method, which quantifies the Level of Service (LOS) for an intersection. The methodology calculates the ratio of the sum of critical turning movement volumes to saturated flow rates. The ICU output is analogous to the intersection's volume-to-capacity (V/C) ratio. LOS A represents free-flow activity and LOS F represents overcapacity operation. According to the City's traffic impact study (TIA) Guidelines, LOS at an intersection or roadway is considered to be unsatisfactory when the ICU exceeds 1.00 (LOS E) within the IBC and 0.90 (LOS D) in all other areas of the City.

For freeway ramps, a similar methodology was employed to collect data for ramps that were within the study area but not associated with any intersection counts taken for the study. The freeway ramp criteria are based on peak hour V/C ratios. The freeway ramp capacities applied in the IBC EIR analysis are based on information contained in the Caltrans Highway Design Manual and the Caltrans Ramp Meter Design Manual and have been verified through discussions with Caltrans staff.

Table 3-1, Arterial Segment V/C Ratio LOS summarizes the V/C ranges that correspond to LOS A through F for arterial roadways and freeway segments and ramps. The V/C ranges listed for arterial roads are designated in the Orange County Congestion Management Program (CMP) as well as the General Plans for the County of Orange and the Cities within the study area. The intersection criteria involve the use of peak hour ICU values. The ICU ranges that correspond to LOS A through F are the same as the V/C ranges shown in Table 5.13-1 for arterial roads.



Table 3-1
Arterial Segment V/C Ratio LOS

LOS	Arterial Segment V/C Ratio	Freeway Segment/Ramp V/C Ratio
A	0.00-0.60	0-0.3
B	0.61-0.70	0.31-0.50
C	0.71-0.80	0.51-0.71
D	0.81-0.90	0.72-0.89
E	0.91-1.00	0.90-1.0
F	F > 1.00	F > 1.0
Source: IBC EIR		

The 2801 Kelvin Residential Project is located at the northeast corner of the Jamboree Road and Kelvin Avenue intersection, approximately 0.25-mile east of the proposed Kelvin Avenue Pedestrian Bridge site. The 2801 Kelvin Residential Project included the preparation of a Traffic Impact Analysis (TIA) to determine the impacts of the residential project on roadway facilities in the vicinity. The TIA included a study area bounded by Barranca Parkway to the north, I-405 to the south, Murphy Avenue to the east, and Red Hill Avenue to the west. The TIA included an analysis of 21 study intersections within the study area; based on the TIA, all study area intersections currently operate at satisfactory LOS (LOS E or better).

Based on the IBC EIR, section 5.13, Transportation and Traffic, with the addition of residential units among the existing predominant office uses at the IBC, there is a growing need for pedestrian transportation amenities such as sidewalks, crosswalks, and other important connections throughout the study area.

3.17 Utilities and Service Systems

Local utilities (e.g., irrigation utilities, electricity, and sewer) that serve existing on-site and surrounding uses are present and available within the project area; however, no utilities exist within the limits of the proposed Kelvin Pedestrian Bridge crossing over Barranca Channel.



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4.0 ENVIRONMENTAL IMPACT ANALYSIS

This Chapter presents information and analysis of the environmental impacts potentially affected by the proposed project. The analysis contained within this Chapter addresses the changes to impacts identified in the IBC EIR that could potentially occur as a result of the proposed Kelvin Avenue Pedestrian Bridge project, as well as any other changes that could result in environmental effects.

A summary of the Final IBC EIR findings is provided, followed by a discussion of the impacts associated with the proposed project modifications and significance of the impacts. An Environmental Checklist Form is included in Appendix A. Mitigation measures from the IBC EIR, or requirements incorporated into the IBC Vision Plan, are incorporated into the proposed project where applicable. Those measures and requirements fall into the following three categories:

- **Existing Plans, Programs, and Policies (PPP)** - These measures include existing regulatory requirements or plans and programs that are applicable to the proposed project. For example, existing standard conditions set forth by the City of Irvine, such as the requirement that new structures meet seismic safety requirements (i.e., California Building Code requirements) serve to reduce the potential for new development within the project site to be significantly affected by possible seismic events.
- **Project Design Features (PDF)** - The analysis of each topic includes a description of any project design features proposed by the City of Irvine that are specifically intended and designed to reduce or avoid impacts.
- **Mitigation Measures (MM)** - For those issue areas where the impacts analysis determines that implementation of the proposed project would result in significant impacts, mitigation measures are proposed in accordance with the requirements of CEQA.

4.1 AESTHETICS

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant aesthetic impacts.

- Future development pursuant to the IBC Vision Plan would not substantially alter the visual character of the IBC area and its surroundings and no mitigation measures were required.
- Additional light and glare generated by specific projects in accordance with the IBC Vision Plan would not substantially impact surrounding land uses. Outdoor lighting is required to be designed and installed so that direct rays are confined to the site and adjacent properties are protected from glare, and the level of lighting on the site must comply with the City's Uniform Security Code (IBC PPP 1-1). Prior to issuance of building permits, applicants must demonstrate through a photometric survey that lighting requirements of the Irvine Uniform Security Code are met (IBC PPP 1-2).
- Future development pursuant to the IBC Vision Plan may generate additional light and glare that could impact wildlife in the San Joaquin Freshwater Marsh and the San Diego Creek. However, for specific high-rise office or residential development projects within 100 feet of the San Joaquin Marsh or San Diego Creek, reflectivity shall be reduced through use of building surface materials and angles that are not highly reflective (IBC PDF 1-1).



Impacts of Proposed Project

The visual character of the portion of the IBC where the proposed project is located is characterized by multi-family residential apartment complexes and low- and mid-rise commercial (office) uses. The diversity of architectural types is bridged by a relatively uniform landscape treatment throughout the area. Based on the IBC EIR, the IBC Vision Plan outlines a conceptual framework of landscape improvements, pedestrian bridges, and new sidewalks. Similarly, the proposed project would result in construction of a trail and installation of a prefabricated pedestrian bridge over the Barranca Channel within the project limits in an urbanized setting. The proposed trail and Kelvin Pedestrian Bridge would be consistent with the visual character of the existing surrounding land uses and other proposed IBC infrastructure improvements in the IBC Vision Plan. The Kelvin Pedestrian Bridge would be of high visual quality and complement their surroundings.

Although the proposed project may incorporate nighttime security lighting for the benefit of trail users, this lighting would be compatible with existing sources of lighting in the project area. Receptors immediately surrounding the project site (i.e., apartment residents to the northeast and southwest of Barranca Channel) are already exposed to nighttime lighting due to existing security lighting along parking lots and internal roads in each residential development. In addition, any new lighting would be subject to existing City standards for intensity, placement, and shielding. There are no significant visual impacts resulting from the construction of the proposed project.

The City of Irvine *General Plan* does not identify any scenic resources or scenic highways within the IBC. The proposed project site is not characterized by unique visual resources or scenic vistas. Therefore, no adverse impact on designated scenic resources would result from the proposed project.

The IBC EIR identified no potentially significant aesthetic impacts. The proposed project would not result in new significant impacts or require new mitigation measures that have not already been addressed in the IBC EIR. Therefore, aesthetic impacts resulting from the proposed project would be less than significant and do not represent a substantial change from the previous analysis.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Summary of IBC EIR Findings

There are no designated farmlands, lands zoned for agricultural use, forest land or timberlands within the IBC.

Impacts of Proposed Project

The project site consists of Siglo Street, Barranca Channel, and a landscaped area associated with the Kelvin Court Apartments. Since no agricultural or forestry uses exist or adjacent to the project site, no impacts to agricultural/forestry resources would occur.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.



4.3 Air Quality

Summary of IBC EIR Findings

The certified IBC EIR identified the following air quality impacts as significant and unavoidable, despite implementation of the following IBC PPPs and PDFs included:

- Regional population, housing and employment growth projections in the IBC were not accounted for in the South Coast Air Quality Management Plan (AQMP):
 - PPP 2-1. SCAQMD Rule 201 – Permit to Construct
 - PPP 2-2. SCAQMD Rule 402 – Nuisance Odors
 - PPP 2-3. SCAQMD Rule 403 – Fugitive Dust (PM₁₀ and PM_{2.5})
 - PPP 2-4. SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
 - PDF 2-1. Health Risk Assessments for Residential Projects within Specified Distances of Certain Industrial Uses
 - PDF 2-2. Requirements for New Residential Developments within 500 Feet of I-405
 - PDF 2-3. Minimum Separation Distance from I-405 for Outdoor Active-Use Public Recreational Areas
 - PDF 2-4. Health Risk Assessments for Residential Projects within 1,000 Feet of Industrial Facility that Emits Toxic Air Contaminants
 - PDF 2-5. Odor Assessment for Residential Projects within 1,000 Feet of Industrial Facility that Emits Substantial Odors
 - PDF 2-6. Tier 3 USEPA Emission Standards for Off-Road Construction Equipment
 - PDF 2-7. Construction Equipment Properly Serviced and Maintained/Restrictions on Nonessential Idling of Construction Equipment
 - PDF 2-8. Construction Dust Control Plan and Enhanced Fugitive Dust Control Measures
- Construction emissions associated with build-out of the IBC would generate short-term emissions that exceed the SCAQMD's regional significance thresholds for VOC, NOX, CO, PM₁₀, and PM_{2.5}, and would significantly contribute to the nonattainment of designations of the South Coast Air Basin for O₃ and particulate matter (PM₁₀ and PM_{2.5}). Refer to PPP 2-1 through PPP 2-4 and PDF 2-6 through PDF 2-9.
- Build-out of the IBC would generate long-term stationary- and mobile-source emissions that exceed the SCAQMD regional significance threshold and significantly contribute to the nonattainment designations of the South Coast Air Basin for O₃ and particulate matter (PM₁₀ and PM_{2.5}). Refer to Global Climate Change PPP 15-2 through PPP 15-13 and PDF 15-3 through PDF 15-17.
- Project-related construction activities could expose sensitive receptors to substantial pollutant concentrations of NO_x, PM₁₀, and PM_{2.5}. Refer to PPP 2-1 through PPP 2-4 and PDF 2-6 through PDF 2-9.
- Development of residential uses within the IBC could be located within the California Air Resources Board's recommended buffer distances from I-405 or existing distribution centers, chrome platers, dry cleaners, or gas stations. Refer to PDF 2-1 through 2-5.

The certified IBC EIR found the following air quality impacts to be less than significant:

- Operation of the IBC would not expose off-site sensitive receptors to substantial concentrations of NO₂, CO, PM₁₀, and PM_{2.5}.



- New land uses within the IBC would not create objectionable odors; however, new residential land uses could be proximate to existing odor generators. Refer to PDF 2-5.

Impacts of Proposed Project

The proposed project would result in air quality impacts from construction. Construction activities produce fugitive dust and combustion emissions from various sources such as demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on-site would vary daily as construction activity levels change. The use of construction equipment on-site would result in regional and localized exhaust emissions.

Nearby sensitive receptors and on-site workers may also be exposed to dust, depending upon prevailing wind conditions, and equipment exhaust emissions. Application of fugitive dust suppression measures would minimize impacts. The project would comply with regional rules, which would assist in reducing the short-term air pollutant emissions. Fugitive dust from a construction-site must be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Implementation of these dust suppression techniques will reduce the fugitive dust generation (and thus the PM₁₀ component) by 50 percent or more. It should be noted that construction activities would be short-term in nature and cease upon project completion.

Long-term air quality impacts would typically consist of mobile source emissions generated from project-related traffic and from stationary source emissions from combustion. The proposed project involves implementation of trail improvements and installation of a pedestrian bridge over the Barranca Channel and would not generate any new vehicular trips. Additionally, the proposed project would not generate any stationary source emissions. The project would result in benefits related to air quality, since it would encourage pedestrian travel and reduce vehicular emissions over the long term. Thus, no impacts would occur in this regard.

During construction, potential odors would be generated by trucks and heavy-duty construction equipment used on-site during demolition and construction. However, odors from the trucks and heavy-duty construction equipment used at the project site would be temporary and would cease to exist after construction is completed. Construction of the proposed project would not create objectionable odors affecting a substantial number of people.

The IBC EIR identified that development of the IBC would increase air quality impacts related to a contribution to existing or projected air quality violations from both construction and operations. The IBC EIR identified mitigation measures that reduced these potential impacts, but not to less than significant levels. The City adopted Findings that reduction below significance levels was not feasible and adopted a Statement of Overriding Considerations for these impacts. Construction activities associated with the proposed project would be relatively minor, since it involves installation of a prefabricated bridge and minor trail improvements. The proposed project would not generate any long-term operational air pollutant emissions, and would result in beneficial effects related to air quality by reducing vehicle trips in the project area. As such, the proposed project would not result in any new significant impacts or substantially increase the severity of a previously-identified significant impact.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of PPPs 2-2 and 2-3, as well as PDFs 2-3 and 2-6 through 2-8 would apply to the proposed project.

PPP 2-2 **SCAQMD Rule 402 – Nuisance Odors:** The SCAQMD prohibits the discharge of any quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property to be emitted within the South Coast Air Basin (SoCAB).



- PPP 2-3 **SCAQMD Rule 403 – Fugitive Dust (PM₁₀ and PM_{2.5}):** The SCAQMD prohibits any person to cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that: (a) the dust remains visible in the atmosphere beyond the property line of the emission source; or (b) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook) if the dust emission is the result of movement of a motorized vehicle.
- PDF 2-3 As described in the proposed design criteria for the project, all outdoor active-use public recreational areas associated with development projects shall be located more than 500 feet from the nearest lane of traffic on the Interstate 405.
- PDF 2-6 Applicants for new developments in the Irvine Business Complex shall require that the construction contractor utilize off-road construction equipment that conforms to Tier 3 of the United States Environmental Protection Agency, or higher emissions standards for construction equipment over 50 horsepower that are commercially available. The construction contractor shall be made aware of this requirement prior to the start of construction activities. Use of commercially available Tier 3 or higher off-road equipment, or:
- year 2006 or newer construction equipment for engines rated equal to 175 horsepower (hp) and greater;
 - year 2007 and newer construction equipment for engines rated equal to 100 hp but less than 175 hp; and
 - 2008 and newer construction equipment for engines rated equal to or greater than 50 hp.
- The use of such equipment shall be stated on all grading plans. The construction contractor shall maintain a list of all operating equipment in use on the project site. The construction equipment list shall state the makes, models, and numbers of construction equipment on-site.
- PDF 2-7 Applicants for new developments in the Irvine Business Complex shall require that the construction contractor to properly service and maintain construction equipment in accordance with the manufacturer's recommendations. Nonessential idling of construction equipment shall be restricted to five minutes or less in compliance with California Air Resources Board's Rule 2449.
- PDF 2-8 Applicants for new developments in the Irvine Business Complex shall require that the construction contractor prepare a dust control plan and implement the following measures during ground-disturbing activities in addition to the existing requirements for fugitive dust control under South Coast Air Quality Management District Rule 403 to further reduce PM₁₀ and PM_{2.5} emissions. To assure compliance, the City shall verify compliance that these measures have been implemented during normal construction site inspections:
- During all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering. This would achieve a minimum control efficiency for PM₁₀ of 5 percent.
 - During all construction activities, the construction contractor shall sweep streets with Rule 1186 compliant PM₁₀-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.



- During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and tarp materials with a fabric cover or other suitable means. This would achieve a control efficiency for PM₁₀ of 91 percent.
- During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. This would achieve an emissions reduction control efficiency for PM₁₀ of 61 percent.
- During all construction activities, the construction contractor shall limit on-site vehicle speeds on unpaved roads to no more than 15 miles per hour. This would achieve a control efficiency for PM₁₀ of 57 percent.
- The construction contractor shall apply chemical soil stabilizers to reduce wind erosion. This would achieve a control efficiency of up to 80 percent.

4.4 Biological Resources

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant biological resources impacts.

- The project would not have a direct substantial adverse effect on any species identified as a sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.
- The project would not have a substantial adverse effect of any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.
- The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.

Impacts of Proposed Project

The site is currently developed with roadway uses, a drainage channel, and a landscaped area planted with ornamental vegetation along the northwesterly boundary of the Kelvin Court Apartments. The Barranca Channel is an earthen bottom/bank drainage facility with rip-rap placed in various locations in the project area. While the majority of the banks are unvegetated, small and sporadic patches of riparian vegetation exist along the bottom of the channel. However, bridge installation activities would not encroach into the channel bottom or banks, and would be



limited to paved and disturbed areas only; thus, there are no native, sensitive, or important biological resources that would potentially be affected by the project.

According to the *General Plan* Conservation Element, there is no identified Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan within or adjacent to the project site. The proposed project would be implemented in an urbanized and developed area. A portion of the project site contains ornamental trees, some of which may be removed during project implementation. In the event any mature trees are removed as part of the project, compliance with existing Migratory Bird Treaty Act (MBTA) requirements would minimize impacts related to nesting birds to a less than significant level. In addition, IBC PPP 3-2 requires compliance with the City's Tree Preservation Ordinance for tree replacement. Therefore, implementation of the project would not cause any significant impacts related to biological resources, and no mitigation measures will be required. As a result, no new impacts are anticipated which were not previously addressed in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

PPP 3-2 If any trees are removed, the Applicant shall carry out a tree survey and obtain a permit for their removal in accordance with the City's tree preservation ordinance (including 1:1 replacement).

4.5 Cultural Resources

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant cultural resources impacts. However, the EIR identified two PPPs to further reduce these less than significant impacts.

- Development of the project could impact prehistoric archaeological sites with burials and the proposed project could destroy paleontological resources or a unique geologic feature. However, prior to issuance of grading permits, project applicants are required to demonstrate retention of an archaeologist and paleontologist who shall remain on call during grading and other significant ground disturbing activities (IBC PPP 4-1).
- Grading activities could potentially disturb human remains. However, in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, specified steps are to be taken for the treatment and disposition of any remains encountered (IBC PPP 4-2).

Impacts of Proposed Project

According to the IBC EIR, no cultural resources are known to exist on the proposed project site. The project site was previously mass-graded. Barranca Channel, its associated maintenance roads, and the landscaped area along the northwestern border of the Kelvin Court Apartments currently exist on-site. The surrounding structures are less than 50 years old and are not considered historically significant. There are no known archaeological or paleontological sites within the project boundary and the site is within an area of low paleontological sensitivity. Moreover, all ground-disturbing and grading associated with the proposed Kelvin Avenue Pedestrian Bridge project would be shallow and limited to a maximum depth of approximately six feet within a very small and focused area (for the construction of bridge's spread footings). Given the minimal ground disturbance associated with the project, it is unlikely that the proposed project would affect unknown archaeological, paleontological, or historic resources. Thus, it has been determined that PPP 4.1 (requiring monitoring during grading) would not apply to the project. However, IBC PPP 4-2 would remain applicable to the proposed project in the event human remains are discovered during earth moving activities. The proposed project would not result in new significant impacts or require new mitigation measures that have not already been addressed in the IBC EIR.



PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PPP 4-2 would apply to the proposed project to minimize impacts related to the accidental discovery of human remains during earth-moving activities.

- PPP 4-2 In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, one of the following steps shall be taken (City of Irvine Standard Conditions 2.1 and A-6):
- a. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Orange County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.
 - b. Where the following conditions occur, the land owner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the property in a location not subject to further subsurface disturbance:
 - The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - The identified descendent fails to make a recommendation; or
 - The landowner or his/her authorized representative rejects the recommendation of the descendent, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. (CEQA Guidelines Section 15064.5[e])

4.6 Geology and Soils

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant geology and soils impacts. However, the PEIR identified several PPPs to further reduce the less than significant impacts.

- Future residents and employees could be subjected to strong earthquakes. With compliance with identified PPPs, no significant impacts would occur:
 - IBC PPP 5-1. Revegetation of cut and fill slopes in accordance with City of Irvine Grading Code and Grading Manual.
 - IBC PPP 5-2. Grading operations and construction in conformance with City of Irvine Grading Code and Grading Manual.
 - IBC PPP 5-3. Detailed geotechnical investigation reports for each Rough Grading Plan to evaluate faults, subsidence, slope stability, settlement, foundations, grading constraints, liquefaction potential,



- issues related to shallow groundwater, and other soil engineering design conditions and provide site-specific recommendations to mitigate these issues/hazards.
- IBC PPP 5-4. Grading and earthwork performed under the observation of a Registered Civil Engineer specializing in Geotechnical Engineering.
 - IBC PPP 5-5. Grading and earthwork performed under the observation of a Certified Engineering Geologist.
 - IBC PPP 5-6. Future buildings and structures designed in accordance with the City of Irvine Building Code and most recent Uniform Building Code and/or California Building Code.
- Future development could potentially be subjected to seismic-related ground failure, including landslides, lateral spreading, subsidence, liquefaction, or collapse, resulting in risks to life and property. With compliance with IBC PPPs 5-1 through 5-6 above, no significant impacts would occur.
 - The project would not result in substantial soil erosion or the loss of topsoil.
 - The project could have corrosive or expansive soil. With compliance with IBC PPPs 5-1 through 5-6 above, no significant impacts would occur.

Impacts of Proposed Project

Earthquakes are common to southern California, and have historically occurred in the project area. While no active surface faults are mapped or known to cross the IBC area, several known regional active and potentially active faults that could produce significant ground shaking may affect the project. Due to the shallow groundwater, the proposed project would also be subject to potential liquefaction hazards during a seismic event. As discussed previously, the project area is subject to several other geologic and soil conditions that could pose potential design hazards to the proposed project, including expansive soils, and corrosive soils. These impacts have been previously covered in the IBC EIR, and would be reduced to less than significant levels with the incorporation of PPPs and PDFs.

The proposed project would implement trail improvements and install a prefabricated pedestrian bridge over the Barranca Channel. The project site is relatively flat and previously graded. Minimal grading would be required for implementation of the proposed project. As noted in the Chapter 2, Project Description, the bridge and abutments would be designed in accordance with current Caltrans design criteria: AASHTO LRFD Design Specifications with the Caltrans Amendments, the latest edition of the Caltrans Seismic Design Criteria and the LRFD Guide Specifications for the Design of Pedestrian Bridges. IBC PPPs 5-2 and 5-4 require grading operations in conformance with City of Irvine Grading Code and Grading Manual and under observation of a Registered Civil Engineer specializing in Geotechnical Engineering or Certified Engineering Geologist. Additionally, IBC PPP 5-6 requires design of buildings and structures in accordance with the City of Irvine Building Code and most recent California Building Code. As such, the proposed project would not result in any new significant impacts or substantially increase the severity of a previously-identified significant impact in regards to geology and soils.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PPPs 5-2 through 5-6 would apply to the proposed project and would minimize the potential for significant impacts related to geotechnical conditions.

- PPP 5-2 All grading operations and construction will be conducted in conformance with the applicable City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, the most recent version of the California Building Code, and consistent with the recommendations included in the most current geotechnical reports for the project area prepared by the engineer of record.



- PPP 5-3. Detailed geotechnical investigation reports for each Rough Grading Plan to evaluate faults, subsidence, slope stability, settlement, foundations, grading constraints, liquefaction potential, issues related to shallow groundwater, and other soil engineering design conditions and provide site-specific recommendations to mitigate these issues/hazards.
- PPP 5-4. In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall be performed under the observation of a Registered Civil Engineer specializing in Geotechnical Engineering in order to achieve proper subgrade preparation, selection of satisfactory fill materials, placement and compaction of structural fill, stability of finished slopes, design of buttress fills, subdrain installation, and incorporation of data supplied by the engineering geologist.
- PPP 5-5. Grading and earthwork performed under the observation of a Certified Engineering Geologist.
- PPP 5-6. Future buildings and structures (e.g., houses, retaining walls) shall be designed in accordance with the City of Irvine Building Code and the most recent Uniform Building Code and/or California Building Code. The concrete utilized shall take into account the corrosion and soluble sulfate soil conditions at the site. The structures shall be designed in accordance with the seismic parameters included in the UBC/CBC.

4.7 Greenhouse Gas Emissions

Summary of IBC EIR Findings

The certified IBC EIR found the following impact to be less than significant with implementation of the identified IBC PPPs and PDFs:

- Project-related greenhouse gas emissions could significantly contribute to global climate change impacts or conflict with the California Air Resources Board-adopted Scoping Plan. The following IBC PPPs and PDFs were included to reduce this impact:
 - PPP 15-1. City of Irvine Construction and Demolition (C&D) Debris Recycling and Reuse Ordinance
 - PPP 15-2. 2008 Building and Energy Efficiency Standards (CCR Title 24)
 - PPP 15-3. Title 24 Code Cycles: Net-Zero Buildings (Residential & Non-Residential)
 - PPP 15-4. California Renewable Portfolio Standard
 - PPP 15-5. California Low Carbon Fuel Standard
 - PPP 15-6. Federal Corporate Average Fuel Economy (CAFE) Standards
 - PPP 15-7. California Assembly Bill 1493 – Pavley Standards
 - PPP 15-8. SB 375
 - PPP 15-9. Transit Service to LAX
 - PPP 15-10. Comprehensive Signal Retiming and Coordination Program
 - PPP 15-11. Additional Fixed Route Shuttle System to Complement the i Shuttle
 - PPP 15-12. Energy Efficient Traffic Lights
 - PPP 15-13. Waste Reduction
 - PPP 15-14. Renewable Energy and Existing Buildings Retrofit Program
 - PPP 15-15. Safe Route to Schools
 - PPP 15-16. Circulation Phasing Analysis
 - PDF 15-1. Alternate Transportation Incentives
 - PDF 15-2. Recycled Materials
 - PDF 15-3. Compact/Mixed-Use Development



- PDF 15-4. High Rate of Internal Trip Capture
- PDF 15-5. Office/Commercial Development Heat Island Standards
- PDF 15-6. Urban Infill Near Multiple Transit Modes
- PDF 15-7. Transportation Management Association (TMA)
- PDF 15-8. Pedestrian Improvements
- PDF 15-9. Bicycle Improvements
- PDF 15-10. Ultra-Low Flow Fixtures
- PDF 15-11. Landscaping and Irrigation Systems
- PDF 15-12. Use of Reclaimed Water on All Master Landscaped Areas
- PDR 15-13. Material Recovery
- PDF 15-14. GreenPoint Rated Residential Buildings
- PDF 15-15. Designed to Earn the Energy Star Non-Residential Buildings

Impacts of Proposed Project

Construction activities associated with heavy equipment emissions would contribute temporarily to greenhouse gas (GHG) emissions. Long-term operation of the project would not result in the generation of any GHGs, since the proposed project would not generate any vehicle trips or result in any stationary source emissions. The City of Irvine and the IBC EIR have set aggressive standards for reducing energy consumption and reduction of GHGs. Construction activities and associated GHG emissions associated with the proposed project would be relatively minor, since it involves installation of a prefabricated bridge and minor trail improvements. In addition, the project would result in beneficial effects related to air quality by reducing vehicle trips in the project area. As such, the proposed project would not result in any new significant impacts or substantially increase the severity of a previously-identified significant impact related to GHGs.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PDF 15-8 would apply to the proposed project and would minimize the potential for significant impacts from GHGs.

PDF 15-8 **Pedestrian Improvements:** The IBC Vision Plan creates funding mechanisms to provide for the implementation of community-orientated pedestrian infrastructure improvements to increase walkability. New streets incorporated into the IBC would reduce the size of the city blocks to a pedestrian scale and pedestrian paseos would connect to the arterials at key locations. In addition, many of the streets in the IBC currently do not have sidewalks. The sidewalk improvement program would be expanded to provide connectivity, and incorporate several new pedestrian bridges, and many existing sidewalks would be moved away from the curb into the setback area. The Creek walk system is also envisioned adjacent to the San Diego Creek to provide a trail to connect the Great Park from the IBC and the Civic Center.

Also refer to PDF 13-1 and PDF 15-7, which allow for the creation of a Transportation Management Association (TMA) for the IBC area.

4.8 Hazards and Hazardous Materials

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant hazards and hazardous material impacts.



- Project construction and/or operations would involve the transport, use, and/or disposal of hazardous materials. With compliance with identified PPPs, no significant impacts would occur:
 - IBC PPP 6-1. Removal of underground storage tanks in accordance with standards and regulations of the OCHCA.
 - IBC PPP 6-2. Compliance with Title 8 of California Code of Regulations (CCR) Section 1532.1 for protection of construction workers exposed to lead.
 - IBC PPP 6-3. Preparation of a Fire Master Plan for submittal to Orange County Fire Authority (OCFA).
 - IBC PPP 6-4. Lead-based paint assessment and removal requirements in compliance with Rule 29 of Code of Federal Regulations (CFR) Part 1926.
 - IBC PPP 6-5. Asbestos-containing materials (ACM) assessment and removal in compliance with applicable state and federal regulations.
 - IBC PPP 6-6. Hazardous waste management during site decommissioning and demolition in accordance with Title 22, Division 4.5 of the CCR.
 - IBC PPP 6-7. Limits and monitoring of construction worker exposure to asbestos in compliance with Title 8 of CCR, Section 1529.
 - IBC PPP 6-8. Appropriate agency notification of evidence of soil and/or groundwater contamination encountered during site development (i.e. OCHCA, DTSC, or RWQCB).
- Various hazardous material sites are located within the IBC project area. Refer to PPP 6-1 through PPP 6-8 above.

As described in the zoning code, PDF 6-2 requires discretionary applications for residential or residential mixed use to include a condition of approval for disclosure to residents clearly outlining the issues associated with living in a mixed-use environment. PDF 6-3 specifies project conditions of approval to mitigate any hazardous materials-related impacts during the removal of facilities such as transformers or clarifiers that would be demolished as part of a proposed development. As required by the zoning code, PDF 6-4 requires applications for new residential and/or residential mixed-use development to be accompanied by data evaluating compatibility with surrounding uses with respect to noise, odors, truck traffic and deliveries, hazardous materials handling/storage, air emissions, and soil/groundwater contamination. PDF 6-5 requires submittal to the City of a health risk assessment for all residential projects located within 1,000 feet of an industrial facility, which emits toxic air contaminants.

- The IBC project site is located in the vicinity of John Wayne Airport (JWA) and within the jurisdiction of an airport land use plan. PDF 6-1 specifies, as described in the zoning related to building height limitations, that recordation of aviation easements, obstruction lighting and marking, and airport proximity disclosures and signage shall be provided per Orange County Airport Environs Land Use Plan standards for JWA. PDF 6-2 requires discretionary applications for residential or residential mixed-use to include a condition of approval for disclosure to residents clearly outlining the issues associated with living in a mixed-use environment.
- IBC project development would not affect the implementation of an emergency response or evacuation plan. Refer to PPP 6-1 through PPP 6-8 above.

Impacts of Proposed Project

The proposed project would require only minor ground disturbance given the nature and scope of improvements (installation of a prefabricated bridge and associated trail improvements). Minor grading would be required for installation of new curb ramps, bridge footings, and trail construction. The bridge and pedestrian access paths would be built entirely within the OCPW right-of-way and no additional right-of-way would be required. IBC PPP 6-2 would protect construction workers from lead exposure, and IBC PPP 6-6 requires managing hazardous waste during site



decommissioning and demolition in accordance with Title 22, Division 4.5 of the CCR. Additionally, IBC PPP 6-8 requires notifying appropriated agency when evidence of soil and/or groundwater contamination encountered during site development. Upon implementation of these applicable PPPs, impacts in regard to hazards and hazardous materials would be less than significant and do not represent a substantial change from the previous analysis.

The project site is located in a built-up and urban area and is not subject to wildfire hazards. Additionally, public roadways provide adequate emergency access to the site, and appropriate fire lanes, water supplies, and other fire prevention measures are included in the project to minimize impacts to emergency providers.

The project site is located within the Federal Aviation Regulations Part 77 (FAR Part 77) "Imaginary Surfaces" associated with the John Wayne Airport, pursuant to the Airport Environs Land Use Plan (AELUP). An Aviation Easement for Orange County Airport covering approximately 18,500 acres around the airport, inclusive of the project site, restricts the construction of buildings and/or structures into air space above 203.68 feet mean sea level (msl). The existing elevation of the site is approximately 39 feet msl. The proposed Kelvin Pedestrian Bridge including floor beam, concrete slab, and pedestrian handrails would be approximately 5' 6" tall. Therefore, the proposed pedestrian bridge would be well below the restricted air space and would not represent a significant impact to aircraft safety, and do not represent a substantial change from the previous analysis.

Thus, the project would not result in any new significant impacts or substantially increase the severity of a previously-identified significant impact related to hazards or hazardous materials.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of PPP 6-2, 6-6, and 6-8 would reduce potential impacts associated with hazards and hazardous materials to less than significant.

PPP 6-2 During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

PPP 6-6 During site decommissioning and demolition activities, hazardous wastes must be managed in accordance with the requirements of Title 22, Division 4.5 of the California Code of Regulations. Title 22 sets forth the requirements with which hazardous-waste generators, transporters, and owners or operators of treatment, storage, or disposal facilities must comply. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste such as the requirements for transporting shipments of hazardous waste, manifesting, vehicle registration, and emergency accidental discharges during transportation.

PPP 6-8 Evidence of soil and/or groundwater contamination (e.g., chemical odors, staining) unrelated to above/underground storage tank releases may be encountered during site development. The appropriate agency (e.g., OCHCA, DTSC, or the Regional Water Quality Board) shall be notified if these conditions are encountered during construction or grading activities. With their oversight, an environmental site assessment would be completed and a determination shall be made as to whether a cleanup is required. Cleanup activities would be consistent with all applicable state and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil and/or groundwater reveal levels of contamination below the standards established by the oversight agency. Alternatively, a risk assessment may be prepared for the site to determine that there are no human or environmental risks associated with leaving contamination below specific levels in place.



Construction in the impacted area shall not proceed until a “no further action” clearance letter or similar determination is issued by the oversight agency, or until a land use covenant is implemented.

4.9 Hydrology and Water Quality

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant hydrology and water quality impacts.

- Development pursuant to the proposed project would not increase the amount of impervious surfaces on the site and would therefore not impact opportunities for groundwater recharge. With compliance with identified PPPs, no significant impacts would occur:
 - IBC PPP 7-1. Requires submittal by a professional civil engineer of a hydrology and hydraulic analysis of the entire site prior to issuance of precise grading permits.
 - IBC PPP 7-2. Requires submittal by a geotechnical engineer of a groundwater survey of the entire site prior to issuance of precise grading permits.
 - IBC PPP 7-3. Requires evidence of filing of a Notice of Intent (NOI) with the State Water Resources Control Board, where a project results in soil disturbance of one or more acres of land that has not been addressed by an underlying subdivision map.
 - IBC PPP 7-4. Requires a project Final Water Quality Management Plan (WQMP) approved by the Director of Community Development prior to issuance of precise grading permits.
- Development pursuant to the proposed project would slightly alter the existing drainage pattern of the site, but would not result in erosion or siltation on- or off-site.
- Development pursuant to the proposed project would not increase the amount of impervious surfaces on the site and would therefore not increase surface water flows into drainage systems within the watershed.
- Portions of the IBC project area are within a 100-year flood hazard area. Within the IBC, Lane Channel, Armstrong Channel, and Barranca Channel all fall within Zone A, which are identified as areas within the one-percent annual chance floodplain (100-year floodplain).
- Development pursuant to the proposed project would not violate any water quality standards or waste discharge requirements. Refer to IBC PPP 7-3.
- During the construction phase of the proposed project, there is the potential for short-term unquantifiable increases in pollutant concentrations from the site. After project development, the quality of storm runoff (sediment, nutrients, metals, pesticides, pathogens, and hydrocarbons) may be altered.

Impacts of Proposed Project

The proposed project may result in water quality impacts during the short-term construction process. The minimal grading and excavation required for project implementation would result in exposed soils that may be subject to wind and water erosion. It should be noted that construction activities would be short-term in nature and cease upon project completion. Since the project impact area would be below one acre, the proposed project would not be subject to the requirements of the Construction General Permit under the National Pollutant Discharge Elimination System (NPDES) program administered by the Santa Ana Regional Water Quality Control Board (RWQCB).

The proposed project would slightly increase the impervious surface by implementing trail improvements over unpaved maintenance road and landscaped area at the northwesterly boundary of the Kelvin Court Apartments.



However, the proposed project would not result in substantial changes to the drainage patterns on-site or off-site. Similar to the existing condition, surface water on the project site would be either drained into Barranca Channel or directed into local storm drains that discharge directly to the San Diego Creek.

Under the municipal Orange County NPDES permit issued by the Santa Ana RWQCB, the City of Irvine is required to ensure that discharges from its municipal storm drain systems do not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives) for surface waters or groundwaters. The area of AC trail impervious area within Orange County Flood Control Channel (OCFCD) right-of-way is approximately 1,600 square feet. The area of impervious concrete sidewalk between Kelvin Avenue and Barranca Channel is approximately 1,900 square feet. The total new impervious area constructed by the project would be 3,500 square feet and would not require preparation of a WQMP.

As stated above, a portion of the project site which is along and over Barranca Channel is located within a 100-year flood hazard area. It should be noted that the bridge construction activities would not encroach into the channel bottom or banks and would not change the capacity of the channel. On the contrary, the bridge span and location have been developed taking into consideration potential future improvements to Barranca Channel. A potential future configuration of the channel to provide additional capacity would be a rectangular channel, with a width of 50 feet and a height of 12 feet with a soft or vegetated invert. In that case, the bridge would need to be temporarily relocated during construction of the new channel. The rectangular channel can then be built, the spread footings would be reconstructed, and the bridge can be replaced onto the new footings.

The IBC EIR reported that development of the IBC would result in changes in drainage patterns, rate and amount of surface water runoff, and substantial changes in absorption rates. The IBC projects would also alter drainage of storm waters and miscellaneous surface water runoff. However, the IBC EIR identified PPPs, PDFs, and mitigation measures that reduce these potential impacts to below a level of significance. Thus, the project would not result in any new significant impacts or substantially increase the severity of a previously-identified significant impact related to hydrology or water quality.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PPP 7-1 would apply to the proposed project and would minimize the potential for significant impacts.

- PPP 7-1 Prior to the issuance of precise grading permits, the applicant shall submit a hydrology and hydraulic analysis of the entire site. The analysis shall be prepared by a professional civil engineer versed in flood control analysis and shall include the following information and analysis (Standard Condition A.6):
- a. Hydrology/hydraulic analysis of 100-year surface water elevation at the project site to determine building elevation or flood proofing elevation.
 - b. Analysis of existing and post development peak 100-year storm flow rates, including mitigation measures to reduce peak flows to existing conditions.
 - c. An analysis demonstrating that the volume of water ponded on the site and stored underground in the drainage system outside of the building envelope in the proposed condition is greater than or equal to the corresponding volume in the existing condition. The water surface used to determine the ponded volume shall be based on the water surface in the major flood control facility that the site is tributary to.



4.10 Land Use and Planning

Summary of IBC EIR Findings

The certified IBC EIR identified the following land use and planning impacts as less than significant:

- The proposed project would not divide an established community. PDF 8-1 establishes Residential Mixed-Use Design Criteria to guide the physical development of any residential or mixed-use project with residential component within the IBC. PDF 8-2 requires submittal of land use compatibility data for new residential and/or residential mixed-use development.
- Project implementation could potentially be in conflict with an applicable adopted land use plan.

Impacts of Proposed Project

The project site and surrounding area are designated as "Urban and Industrial" by the City of Irvine *General Plan*. The project site is designated as "5.1 IBC Multi-Use" by the City of Irvine *Zoning Map* and surrounding areas are designated as "5.3 IBC Residential" and "5.1 IBC Multi-Use" by the *Zoning Map*. The proposed project would implement trail improvements and install a pedestrian bridge over the Barranca Channel to improve walkability and accessibility in the project area and serve the needs of residents and employees of this district. The proposed project would not divide an established community, but would rather provide beneficial impacts in connectivity throughout the area. As stated above, portion of the proposed project (Barranca Channel Sidewalk) would be located within "Proposed Trail Adjacent to Canal" identified by the IBC Element of the *General Plan*. Therefore, the proposed project would result in a beneficial impact in regards to consistency with the City's *General Plan*. The proposed project does not result in a new significant environmental impact nor is there a substantial increase in the severity of impacts from that described in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.

4.11 Mineral Resources

Summary of IBC EIR Findings

The IBC EIR indicates that there would be no impacts in regards to mineral resources. There are no known mineral resources or mineral resource recovery sites within the IBC.

Impacts of Proposed Project

The proposed project would have no adverse impacts on mineral resources as none exist within the project area. No changes to the IBC EIR are required.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.



4.12 Noise

Summary of IBC EIR Findings

The certified IBC EIR identified the following significant and unavoidable noise impacts:

- Construction activities could result in temporary noise increases in the vicinity of the proposed project. IBC PPP 9-1, Control of Construction Hours, and PDF 9-2, specifying measures to separate noise sources and sensitive receptors during construction were identified.
- Construction of the proposed project may generate perceptible levels of vibration at adjacent vibration-sensitive land uses. PDF 9-1 requires noise vibration analysis and vibration reduction measures for individual projects that involve vibration-intensive construction activities. Also refer to PPP 9-1 and PDF 9-2 above.
- Project-related vehicle trips would substantially increase ambient noise at noise sensitive receptors in the vicinity of the project site on a segment of McGaw Avenue, and cumulatively on segments of Valencia Avenue (Newport Avenue to Red Hill Avenue), Warner Avenue (SR-55 to Red Hill Avenue), McGaw Avenue (Jamboree Road to Murphy Avenue), and Birch Street (Mesa Drive to Bristol Street SB).
- Sensitive land uses could be exposed to noise levels that exceed 65 dBA CNEL from transportation or stationary sources. PPP 9-2 requires a final acoustical report demonstrating that development will be adequately sound attenuated with all mitigation measures incorporated. PDF-3 requires occupancy disclosure notices for units with patios and/or balconies that do not meet the 65 dBA CNEL.

The certified IBC EIR found the following noise impacts to be less than significant:

- Stationary-source noise generated by land uses within the IBC would comply with City of Irvine Municipal Code and would not substantially elevate the ambient noise environment.
- Noise-sensitive habitable rooms in structures within the 60 dBA CNEL noise contour of the John Wayne Airport would be exposed to substantial levels of airport-related noise. PDF-4 prohibits residential and active recreational areas in the 65 dBA CNEL of John Wayne Airport, and requires preparation of an acoustical analysis identifying required building acoustical improvements for any project within the airport 65 dBA CNEL.

Impacts of Proposed Project

The proposed project would generate short-term noise impacts during construction, and nominal long-term noise impacts. The project proposes to implement trail improvements and install a prefabricated pedestrian bridge over the Barranca Channel within the project limits. Noise levels from grading and other construction activities for the proposed project may be elevated at the closest industrial/office uses near the project site, and for adjacent residences in the Main Street Village Apartments, Kelvin Court Apartments, and Charter Apartments for limited times when construction occurs. Construction related noise impacts from the proposed project would be potentially adverse; however, compliance with the City's allowable construction hours would reduce the impact to a less than significant level. In addition, substantially noisy construction activities, such as pile driving, would not be required for project implementation.

As described above, noise levels in the project area are influenced primarily by motor vehicle noise and commonly reach or exceed 60 to 70 CNEL along arterials within the IBC. Existing noise levels along Jamboree Road are determined to be 71.4 CNEL at 100 feet from centerline. However, the project would not generate any vehicle traffic;



rather, it would have beneficial impacts related to noise since it would reduce vehicle trips by encouraging travel by bicyclists and pedestrians. On-site noise levels associated with bridge/trail usage would be nominal, and would occur primarily during the daytime hours.

The proposed project would not contribute to any measurable long-term aircraft activity. The proposed on-site recreational uses would be exposed to noise levels below 60 dBA CNEL from John Wayne Airport. Because noise from aircraft activity would be below 60 dBA CNEL, no mitigation measures would be required for the proposed recreational uses.

The proposed project would implement trail improvements and install a prefabricated pedestrian bridge over the Barranca Channel. Implementation of IBC PPP 9-1 and PDF 9-2 would apply to the proposed project and would reduce impacts from construction noise to less than significant levels for the proposed project. The IBC EIR concluded that impacts from construction and operations of future development within the IBC would result in significant noise impacts. For the IBC EIR, the City adopted Findings that reduction below significance levels was not feasible and adopted a Statement of Overriding Considerations for short-term construction and long-term operational noise impacts. However, the proposed project does not result in a new significant noise impacts nor are there a substantial increases in the severity of impacts from that described in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PPP 9-1 and PDF 9-2 would apply to the proposed project, which would reduce impacts from construction noise.

PPP 9-1 Control of Construction Hours: Construction activities occurring as part of the project shall be subject to the limitations and requirements of Section 6-8-205(a) of the Irvine Municipal Code which states that construction activities may occur between 7:00 AM and 7:00 PM Mondays through Fridays, and 9:00 AM and 6:00 PM on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.

PDF 9-2 Prior to issuance of grading permits, the project applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved.

- Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturer's standards.
- Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, whenever feasible.



4.13 Population and Housing

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant population and housing impacts.

- The proposed project would directly result in population and employment growth in the project area. IBC PPP 10-1 specifies compliance with City Housing Element policies to ensure the siting of new very low, low, and moderate income housing units in future development projects.

Impacts of Proposed Project

The proposed project would implement trail improvement and install a prefabricated pedestrian bridge over the Barranca Channel to create an interconnected system of pedestrian-friendly neighborhood. The proposed project would not involve the construction of any homes, businesses, or other uses that would directly or indirectly result in population growth. Additionally, the project area is urbanized and generally built-out. Therefore, no impacts would occur in regards to population and housing.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.

4.14 Public Services

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant public services impacts. The proposed IBC EIR project would introduce new structures, residents, and workers within the IBC, resulting in increased demand for fire, police, school, and library services. However, impacts related to development in the IBC would be minimized through adherence to existing City and/or State requirements (Orange County Fire Authority design requirements, City of Irvine Uniform Security Code, and payment of applicable development impact fees).

Impacts of Proposed Project

The proposed project would not result in the development of any habitable structures or uses that would create a substantial demand for public services. Although the project could potentially result in the need for fire and/or police protection as a result of trail usage, any such demand would be infrequent and would result in nominal impacts on OCFA and Irvine Police Department facilities and personnel. In addition, the project would not result in any demand for school/library services, since no population would be generated by the project. Thus, the proposed project would not result in a new significant impact or substantial increase in the severity of a significant impact as identified in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of IBC PPPs 11-1 and 11-5 would apply to the proposed project, which would reduce impacts related to public services.

- PPP 11-1 Every project applicant shall comply with all applicable Orange County Fire Authority codes, ordinances, and standard conditions regarding fire prevention and suppression measures relating to



water improvement plans, fire hydrants, automatic fire extinguishing systems, fire access, access gates, combustible construction, water availability, and fire sprinkler systems.

- PPP 11-5 The project applicant shall comply with all applicable requirements of the City of Irvine Uniform Security Code (Municipal Code Title 5, Division 9, Chapter 5).

4.15 Recreation

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant recreation impacts.

- At project build-out, the IBC project would generate approximately 9,858 additional residents, which would increase the use of existing park and recreation facilities. IBC PPP 12-1 requires payment of park fees prior to issuance of any residential building permits for subdivisions. IBC PPP 12-2 requires irrevocable offers of dedication for nonexclusive easements for planned public use trails.

Impacts of Proposed Project

According to the IBC Element of the *General Plan*, higher density neighborhoods need parks and urban space to offset building intensity and provide space for informal activities. The vision of the IBC is to create a system of new public parks, urban plazas, open spaces, and private or public recreation areas that are interconnected by streets, bikeways, and trails. To provide enhanced pedestrian connectivity to the IBC, new bridges were proposed in the IBC EIR to create enhanced pedestrian and bicycle connections with the IBC and to the wider system of trails. Additionally, the Vision Plan suggests a more “pedestrian oriented, urban living experience” within the emerging residential and mixed-use districts of the IBC. Based on the IBC Element, the existing sidewalk improvement program will continue to be implemented and embellished with enhanced standards for improved walkability and connectivity to create an interconnected system of pedestrian-friendly boulevards, avenues, and streets.

The proposed project would implement trail improvements and install a pedestrian bridge over the Barranca Channel within the project limits which would be consistent with the Objectives N-3, Connectivity, and N-4, Open Space, of the IBC Element and would increase recreational facilities in the project area. The proposed project would create a new point of access over Barranca Channel within an area surrounded by residential and employment-generating uses, and would promote and encourage the use of existing and proposed regional trails within the IBC, as identified within the IBC Vision Plan. In addition, the proposed project would provide pedestrian linkages that facilitate improved resident access to local services, recreation facilities, the City’s trail network and transit access which all support Objective N-3 of the IBC Element. The project would not include the development of any land uses capable of producing population growth that would increase demand for recreational facilities or the construction of new recreational facilities. Rather, the project would represent a beneficial impact related to recreational opportunities in the project area. Thus, the proposed project does not result in new significant impacts in this regard nor is there a substantial increase in the severity of impacts from that described in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.



4.16 Transportation/Traffic

Summary of IBC EIR Findings

The certified IBC EIR identified the following transportation and traffic impacts as significant and unavoidable with IBC PPPs, PDFs and MMs included:

- Build-out of the IBC pursuant to the proposed project would generate additional traffic volumes and impact levels of service for the existing area roadway system.
 - PPP 13-1. Development Fee Program
 - PDF 13-1. Transportation Management Association
 - MM 13-1. AB 1600 Nexus Study including intersection improvements in the cities of Costa Mesa, Irvine, Newport Beach, Santa Ana, and Tustin
 - MM 13-2. Update the IBC Development Fee Program (PPP 13-1) pursuant to the AB 1600 Nexus Study (MM 13-1)
 - MM 13-3. Update the IBC Land Use and Trip Monitoring Data base (IBC Database) to reflect land use changes associated with IBC project.

The certified IBC EIR identified the following transportation and traffic impacts as less than significant:

- The proposed project would not increase hazards due to a design feature or incompatible uses.
- Adequate parking would be provided for the proposed project.
- The proposed project complies with adopted policies, plans, and programs for alternative transportation.

Impacts of Proposed Project

The proposed project would implement trail improvements and install a pedestrian bridge over the Barranca Channel within the project limits. Construction traffic would occur during the short-term construction process. This short-term traffic would include the transfer to construction equipment, construction worker trips, and hauling trips for construction materials. However, given the scope and nature of the project and minimal nature of construction activities (installation of a prefabricated pedestrian bridge and minor grading for trail construction for an approximate length of 630 feet), impacts in this regard would be less than significant. These impacts would be short-term in nature and would cease upon completion of the construction process.

Long-term operation of the proposed project would not generate vehicle trips that would adversely affect the circulation system. Additionally, as stated above, based on the IBC EIR, section 5.13, Transportation and Traffic, with the addition of residential units among the existing predominant office uses at the IBC, there is a growing need for pedestrian transportation amenities such as sidewalks, crosswalks, and other important connections throughout the study area. Therefore, the proposed project would result in beneficial impacts in this regard, since it would create a new point of access over Barranca Channel within an area surrounded by residential and employment-generating uses, and would promote and encourage the use of existing and proposed regional trails within the IBC, as identified within the IBC Vision Plan. The project does not result in new significant impacts nor is there a substantial increase in the severity of impacts from that described in the IBC EIR.

PPPs, PDFs, and MMs Applicable to the Proposed Project

None required.



4.17 Utilities and Service Systems

Summary of IBC EIR Findings

The certified IBC EIR identified no potentially significant utilities and service systems impacts. Final build-out of the IBC would result in an increase in water demand. There is sufficient supply capacity for both potable and non-potable water to accommodate full build-out through 2028, upon completion of under development supplies. Future development projects in the IBC would be required to comply with existing plans, programs, or policies as they pertain to water supply, demand, and wastewater. IBC project-generated wastewater could be adequately treated by the wastewater service provider. Additionally, existing facilities would be able to accommodate IBC project-generated solid waste and comply with related solid waste regulations. Existing and/or proposed facilities would be able to accommodate IBC project generated utility demands. The IBC project shall comply with all State Energy Insulation Standards and City of Irvine codes in effect at the time of application for building permits (commonly referred to as Title 24 which covers the use of energy efficient building standards, including lighting.)

Impacts of Proposed Project

No utilities currently exist within the limits of the proposed pedestrian bridge crossing over the Barranca Channel. Nighttime security lighting may be installed along the prefabricated pedestrian bridge to provide security for users of the bridge. Compliance with existing State and local codes for energy efficiency (including Title 24) would minimize potential energy demand impacts to less than significant. Additionally, the proposed project would not include the construction of any habitable structures or other uses capable of consuming water or producing wastewater and solid waste. Therefore, project would not result in new significant impacts or an increase in the severity of an impact related to utilities and service systems.

PPPs, PDFs, and MMs Applicable to the Proposed Project

Implementation of PPP 14-5 would apply to the proposed project, and would minimize impacts related to utilities and service systems (energy).

PPP 14-5 The proposed project shall comply with all State Energy Insulation Standards and City of Irvine codes in effect at the time of application for building permits. (Commonly referred to as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 covers the use of energy efficient building standards, including ventilation, insulation and construction and the use of energy saving appliances, conditioning systems, water heating, and lighting.) Plans submitted for building permits shall include written notes demonstrating compliance with energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits.

SUMMARY

Pursuant to Section 15162 of the CEQA Guidelines, the City of Irvine makes the finding that the modification to the IBC Vision Plan (i.e., implementation of the Kelvin Avenue Pedestrian Bridge Project) does not require the preparation of a Subsequent or Supplemental EIR and that an Addendum to the certified IBC EIR is appropriate. The City of Irvine has determined that none of the conditions identified in Section 15162 of the CEQA Guidelines occur, and an Addendum has been prepared pursuant to Section 15164 of the CEQA Guidelines.



5.0 REFERENCES

The following references were utilized during preparation of this Addendum to the Final IBC Program EIR.

Addendum to the IBC Vision Plan and Mixed Use Overlay Zoning Code Final Environmental Impact Report (SCH No. 2007011024) for the 2801 Kelvin Residential Project, ICF International, June 2013.

City of Irvine General Plan, City of Irvine, adopted various dates since 1973.

IBC Vision Plan and Mixed Use Zoning Code Final Program Environmental Impact Report, City of Irvine, July 13, 2010.

Flood Insurance Rate Map for Orange County and Incorporated Areas, Panel 287 of 539, Map No. 06059C0287J, Federal Emergency Management Agency, Revised December 3, 2009.



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APPENDIX A

Environmental Checklist



Appendix A

Environmental Checklist

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
1. AESTHETICS. Would the project:						
a. Have a substantial adverse effect on a scenic vista?						✓
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?						✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?						✓
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?						✓
2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:						
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?						✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?						✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?						✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?						✓
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:						
a. Conflict with or obstruct implementation of the applicable air quality plan?						✓
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?						✓
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?						✓
d. Expose sensitive receptors to substantial pollutant concentrations?						✓
e. Create objectionable odors affecting a substantial number of people?						✓
4. BIOLOGICAL RESOURCES. Would the project:						



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?						✓
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?						✓
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?						✓
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?						✓
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?						✓
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
5. CULTURAL RESOURCES. Would the project:						
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?						✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?						✓
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?						✓
d. Disturb any human remains, including those interred outside of formal cemeteries?						✓
6. GEOLOGY AND SOILS. Would the project:						
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.						✓
2) Strong seismic ground shaking?						✓
3) Seismic-related ground failure, including liquefaction?						✓
4) Landslides?						✓
b. Result in substantial soil erosion or the loss of topsoil?						✓
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?						✓
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?						✓
7. GREENHOUSE GAS EMISSIONS: Would the project:						
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?						✓
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?						✓
8. HAZARDS AND HAZARDOUS MATERIALS: Would the project:						
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?						✓
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?						✓
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?						✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?						✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?						✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?						✓
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?						✓
9. HYDROLOGY AND WATER QUALITY. Would the project:						
a. Violate any water quality standards or waste discharge requirements?						✓
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?						✓
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?						✓
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?						✓
f. Otherwise substantially degrade water quality?						✓
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?						✓
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?						✓
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?						✓
j. Inundation by seiche, tsunami, or mudflow?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
10. LAND USE AND PLANNING. Would the project:						
a. Physically divide an established community?						✓
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?						✓
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?						✓
11. MINERAL RESOURCES. Would the project:						
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?						✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?						✓
12. NOISE. Would the project result in:						
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?						✓
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?						✓
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?						✓
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?						✓
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?						✓
13. POPULATION AND HOUSING. Would the project:						
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?						✓
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?						✓
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?						✓
14. PUBLIC SERVICES.						
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
1) Fire protection?						✓
2) Police protection?						✓
3) Schools?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
4) Parks?						✓
5) Other public facilities?						✓
15. RECREATION.						
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?						✓
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?						✓
16. TRANSPORTATION/TRAFFIC. Would the project:						
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?						✓
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?						✓
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?						✓
e. Result in inadequate emergency access?						✓
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?						✓
17. UTILITIES AND SERVICE SYSTEMS. Would the project:						
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?						✓
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?						✓
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?						✓
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?						✓
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?						✓
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?						✓



ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Resulting in New Significant Impacts	New Information Resulting in More Severe Impacts	New Information Identifying New Mitigation Measures Available to Reduce Significant Impacts	Less Than Significant Impact/No Substantial Change From Previous Analysis
g. Comply with federal, state, and local statutes and regulations related to solid waste?						✓
18. MANDATORY FINDINGS OF SIGNIFICANCE.						
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?						✓
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?						✓
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?						✓

CITY COUNCIL RESOLUTION NO. 17- XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, CERTIFYING THE ADDENDUM TO THE IBC VISION PLAN AND MIXED USE OVERLAY ZONING CODE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT (SCH NO. 2007011024) FOR THE KELVIN AVENUE PEDESTRIAN BRIDGE PROJECT

WHEREAS, the Kelvin Avenue Pedestrian Bridge Project, is considered a “project” pursuant to terms of the California Environmental Quality Act; and

WHEREAS, an Environmental Impact Report was prepared for the IBC Vision Plan and Mixed Use Overlay Zoning Code and distributed for public review from March 27, 2009 to May 14, 2009 and re-circulated for public review from December 23, 2009 to February 5, 2010; and

WHEREAS, the City Council of the City of Irvine adopted the subject Environmental Impact Report on July 13, 2010; and

WHEREAS, an Addendum to the Environmental Impact Report was prepared for this project to evaluate minor modifications to the project description; and

WHEREAS, the City Council of the City of Irvine has considered evidence presented by the Public Works Department with respect to the subject Addendum to the Environmental Impact Report on July 25, 2017.

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

SECTION 1. There are no new significant impacts resulting from the proposed project and no substantial increases in the severity of the previously identified environmental impacts. The proposed project’s effects were covered in the IBC Environmental Impact Report. All feasible mitigation measures and alternatives have been incorporated in the proposed project consistent with the IBC Environmental Impact Report. The City Council considered the Addendum to the Environmental Impact Report. The City Council hereby finds that the Addendum to the Environmental Impact Report reflects the independent judgment of the City. Based on the foregoing, the Addendum to the Environmental Impact Report is hereby adopted.

SECTION 2. 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 at a regular meeting held on the 25th day of July 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 adopted at a regular meeting of the City Council of the City of Irvine, held on the 25th day of July 2017.

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE

**AMENDMENT NO. 2
TO THE KELVIN APARTMENTS – CONDITION E.10.b.2, CONDITIONAL USE
PERMIT 47198-CPU, LETTER AGREEMENT**

THIS AMENDMENT NO. 2 TO THE KELVIN APARTMENTS CONDITION E.10.b.2, CONDITIONAL USE PERMIT 47198-CPU LETTER AGREEMENT is made and entered as of July 12, 2017 by and between KELVIN COURT LIMITED PARTNERSHIP, a Delaware limited partnership ("Kelvin LP") and the CITY OF IRVINE, a California municipal corporation ("City"), for the purpose of further amending the "Kelvin Apartments – Condition E.10.b.2, Conditional Use Permit 47198-CPU, Letter Agreement" entered into between Wood Partners and City as of July 18, 2008, as amended by that certain Amendment No. 1 dated as of July 18, 2016 by and between Kelvin LP and City. Kelvin LP and City hereby agree to the following changes to the Letter Agreement (as amended to date).

1. No. 2 and No. 5 are hereby revised on the Terms to delete "July 18, 2017" and replace with "January 31, 2018".
2. Except as set forth in this Amendment, all terms, conditions and provisions of the Letter Agreement (as amended to date) remain unmodified and in full force and effect. This Amendment is executed by their respective duly authorized agents as of the date first set forth above.

[SIGNATURE PAGE IMMEDIATELY FOLLOWING]

City of Irvine
A California municipal corporation

By: _____

Kelvin Court Limited Partnership, a Delaware limited partnership:

By: Pacific Housing, Inc., a California nonprofit public benefit corporation,
its Managing General Partner

By: _____
Its: President

By: EQR-Kelvin Court, LLC, a Delaware limited liability company,
its Co-General Partner

By: ERP Operating Limited Partnership, an Illinois limited partnership,
its member

By: Equity Residential, a Maryland real estate investment trust,
its general partner

By: _____
Its: 7-12-170 AUP-Investments

AMENDMENT NO. 1
TO THE KELVIN APARTMENTS – CONDITION E 10.b 2, CONDITIONAL USE
PERMIT 47198-CPU, LETTER AGREEMENT

THIS AMENDMENT NO 1 TO THE KELVIN APARTMENTS CONDITION E.10.b.2, CONDITIONAL USE PERMIT 47198-CPU LETTER AGREEMENT is made and entered as of July 18, 2016 by and between KELVIN COURT LIMITED PARTNERSHIP, a Delaware limited partnership ("Kelvin LP") and the CITY OF IRVINE, a California municipal corporation ("City"), for the purpose of amending the "Kelvin Apartments – Condition E.10.b 2, Conditional Use Permit 47198-CPU, Letter Agreement" entered into between Wood Partners and City as of July 18, 2008 Kelvin LP and City hereby agree to the following changes to the Letter Agreement.

1. Kelvin LP is the owner of Kelvin Apartments.
2. Revise No. 2 on the Terms to:

Kelvin LP shall grant to the City, without any costs to Kelvin LP, the necessary easements on its property for the City to construct the sidewalk and necessary connections for public access to the pedestrian bridge as well as the necessary landings on their property prior to the commencement of the bridge construction. Since engineering and project design has yet to be undertaken, the exact locations of the bridge connection from the street and fire lane bridge landing will be determined at a later time, although the parties intend to finalize the specific location of the sidewalk and landings and finalize applicable easement documents as soon as possible and no later than July 18, 2017, all subject to the reasonable approval of the parties. The public access easement areas shall remain unobstructed and occur within the 30 foot westerly boundaries and continue along the fire lane easterly. The locations of these areas are shown in "Exhibit A" as denoted by the dashed lines. The sidewalk along the westerly boundary would be located along the base of the small slope with the intent of minimizing grading and disruption to existing planting and irrigation. The sidewalk along the fire lane would be delineated with signs to direct pedestrian access to the bridge and would not obstruct fire access.

3. No. 4 on the Terms - The commencement of construction of the pedestrian bridge is extended to 48 months after the date upon which Kelvin LP has approved the specific location(s) of the contemplated easements and the City and Kelvin LP have both approved and fully executed the applicable easement agreements.
4. Revise No. 5 on the Terms – If (a) Kelvin LP has not approved the specific location(s) of the contemplated easements and the City and Kelvin LP have not both approved and executed the final applicable easement agreements by July

18, 2017 or (b) construction does not commence by 48 months following the date described in No. 4, then the full amount of the funds, plus interest, shall be refunded to Kelvin LP.

5. Add No. 9 Maintenance of the sidewalk and pedestrian bridge – The pedestrian bridge and the sidewalk will be maintained on an ongoing basis by the City at no costs to Kelvin LP.
6. Except as set forth in this Amendment, all terms, conditions and provisions of the Letter Agreement remain unmodified and in full force and effect. This Amendment is executed by their respective duly authorized agents as of the date first set forth above.

[SIGNATURE PAGE IMMEDIATELY FOLLOWING]

City of Irvine
A California municipal corporation

By: Susan Emery
Susan Emery
Director of Community Development

Kelvin Court Limited Partnership, a Delaware limited partnership:

By: Pacific Housing, Inc., a California nonprofit public benefit corporation,
its Managing General Partner

By: _____
Its: _____

By: EQR-Kelvin Court, LLC, a Delaware limited liability company,
its Co-General Partner

By: ERP Operating Limited Partnership, an Illinois limited partnership,
its member

By: Equity Residential, a Maryland real estate investment trust,
its general partner

By: _____
Its: _____

City of Irvine
A California municipal corporation

By: _____
Susan Emery
Director of Community Development

Kelvin Court Limited Partnership, a Delaware limited partnership:

By: Pacific Housing, Inc., a California nonprofit public benefit corporation,
its Managing General Partner

By: _____
Its: President

By: EQR-Kelvin Court, LLC, a Delaware limited liability company,
its Co-General Partner

By: ERP-Operating Limited Partnership, an Illinois limited partnership,
its member

By: Equity Residential, a Maryland real estate investment trust,
its general partner

By: _____
Its: _____

City of Irvine
A California municipal corporation

By: _____
Susan Emery
Director of Community Development

Kelvin Court Limited Partnership, a Delaware limited partnership:

By: Pacific Housing, Inc., a California nonprofit public benefit corporation,
its Managing General Partner

By: _____
Its: _____

By: EQR-Kelvin Court, LLC, a Delaware limited liability company,
its Co-General Partner

By: ERP Operating Limited Partnership, an Illinois limited partnership,
its member

By: Equity Residential, a Maryland real estate investment trust,
its general partner

By: _____
Its: First Vice Pres



July 18, 2008

Mr. Kyle Woodley
c/o Wood Partners
3991 MacArthur Blvd Suite 350
Newport Beach, CA 92660

Subject: Kelvin Apartments - Condition E.10.b.2, Conditional Use Permit 47198-CPU; Letter Agreement

Dear Mr. Woodley:

This letter is in response to your correspondence of June 19, 2008, in which you expressed the desire to satisfy the requirements of a condition of approval that was placed on your project located at 2552 Kelvin Avenue in the Irvine Business Complex. As you know, the subject condition requires the construction of a pedestrian bridge across the Barranca Flood Control Channel connecting your site to the Main Street Village Apartments. The development of Kelvin Apartments was approved through Conditional Use Permit 47198-CPU by adoption of City Council Resolution 03-50.

Condition E.10.b.2 reads as follows:

"Prior to the issuance of building permits, the applicant shall demonstrate to the Director of Community Development that the Orange County Flood Control District (OCFCD) and owner/assignee of the MetLife property have consented to construction of a pedestrian bridge over the Barranca Channel linking the subject site with the future MetLife residential apartment community. The applicant shall be responsible for all costs to acquire consent, design and construct the bridge, and for ongoing maintenance. The applicant shall post an appropriate bond to guarantee construction of the bridge prior to the issuance of building permits for any structures on the site. The construction of the bridge shall be complete prior to the issuance of the first certificate of use and occupancy."

In your June 19, 2008 letter, Alta Pacific, LLC ("Wood Partners") proposes to provide the City of Irvine funding for the construction of the pedestrian bridge as a means of fully satisfying its obligations pursuant to this condition of approval. We have reviewed Wood Partners' proposal and agree that such funding will satisfy the terms of this condition but that additional details concerning the proposal need to be included.

Specifically, we propose that Condition E.10.b.2 of City Council Resolution 03-50 is satisfied subject to the following terms:

- 1) Wood Partners shall provide the City of Irvine payment in the amount of \$184,000 towards the cost of constructing the pedestrian bridge as required in Condition E.10.b.2. The money will be deposited into an interest-bearing account and shall be used only towards the pedestrian bridge across the Barranca Flood Control Channel connecting the Kelvin Apartments to the Main Street Village Apartments.
- 2) Wood Partners shall grant to the City, without costs, the necessary connections and easements on their property for public access to the pedestrian bridge including the necessary landings on their property prior to commencement of bridge construction. Since engineering and project design has yet to be undertaken, the exact locations of the bridge connection from the street and fire lane bridge landing will be determined at a later time. The public access easement areas shall remain unobstructed and occur within the 30-foot westerly boundaries and continue along the fire lane easterly. The locations of these areas are shown in "Exhibit A" as denoted by the dashed lines.
- 3) The City of Irvine shall be responsible for design, construction, and securing all public easements and landings between Main Street Village Apartments and the Orange County Flood Control District associated with the pedestrian bridge.
- 4) Commencement of construction of the pedestrian bridge shall occur no later than eight years from the date of this signed letter by both parties.
- 5) If commencement of the pedestrian bridge does not occur within the agreed time frame, the full amount of the funds, plus interest, shall be refunded to Alta Pacific, LLC through Wood Partners' Newport Beach office.
- 6) In the event that the final amount associated with the pedestrian bridge is less than \$184,000 plus interest, the remaining balance will be refunded to Alta Pacific, LLC through Wood Partners' Newport Beach office upon completion of the bridge. The final amount includes all costs associated with the pedestrian bridge which includes, but is not limited to, construction of the bridge and necessary landings, gate/fence installations, as well as securing all easements. In the event that the cost of the pedestrian bridge exceeds \$184,000, Wood Partners shall have no further obligation to fund such additional amount.
- 7) Wood Partners shall sign and return a copy of this letter with a check to the City of Irvine in the amount of \$184,000. A signed copy of this letter by both parties will signify Wood Partners' agreement to the terms listed herein regarding the full satisfaction of Condition E.10.b.2 of City Council Resolution 03-50.
- 8) This letter agreement shall be binding on the successors and assignees of Wood Partners and inure to their benefit.

If you have any questions regarding this letter, please contact Tim Gehrich, Manager of Development Services at (949) 724-6363.

Attachment:

1. Exhibit A: Easement Locations


Agreed as set forth above:

Dated: 7/22/08 "WOOD PARTNERS"

ALTA PACIFIC, LLC, a Georgia limited liability company

By: Wood Alta Pacific, LLC, a Georgia limited liability company, Its Manager

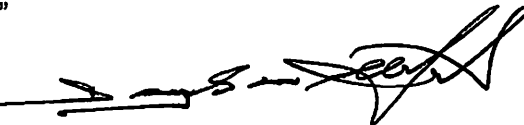
By: WP South Corporation, Inc., a Georgia corporation, Its Manager

By: 

Name: Frank B. Middleton

Title: Vice President

Dated: 7/24/08 "City of Irvine"

By: 

Name: Douglas Williford, AICP

Title: Director of Community Development

4015 BROADWAY

COURTYARD

COURTYARD

COURTYARD

COURTYARD

COURTYARD

COURTYARD

POOL

RECREATION BLDG.

RELEASE BLDG.

GUEST PARKING

PORT OF SPAIN, EXISTING BLDG. (REAR) AND EXISTING LIVING OFFICE AND RECEPTION AREA, WOULD BE REMOVED AND REBUILT

4015

ANNEX

3.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: IRVINE BUSINESS COMPLEX TRANSPORTATION MITIGATION
FEE PROGRAM UPDATE



Director of Community Development



City Manager

RECOMMENDED ACTION

- 1) Open the public hearing.
- 2) Continue the public hearing to September 12, 2017.

EXECUTIVE SUMMARY

Staff is recommending this item be continued to the meeting of September 12, 2017, to allow the Transportation Commission additional time to provide a recommendation to the City Council.

The Transportation Commission considered this item at its regular meeting on July 18, and voted 4-0-1 (Commissioners Casey, O'Malley, Greenberg and Montgomery voting in favor; Commissioner Moody absent) to continue the item to its August 15, 2017 meeting to allow the Transportation Commission to review various alternatives for grant funding to offset the proposed fee increase.

FINANCIAL IMPACT

None.

ALTERNATIVES CONSIDERED

None.

REPORT PREPARED BY: Bill Jacobs, Principal Planner
Sun-Sun Murrillo, Supervising Transportation Analyst

cc: Scott Smith, Deputy Director of Public Works
Jim Houlihan, City Engineer
Kerwin Lau, Project Development Administrator
David Law, Principal Planner, Development Assistance Center
Stephen Higa, Principal Planner, Project Entitlement
Joel Belding, Principal Planner, Project Entitlement

Darlene Nicandro, Principal Planner, Park Planning
Jeffrey S. Davis, Vice President, Entitlement, Irvine Company
Jennifer Bohen, Five Point Communities
Alicia Berhow, Orange County Business Council
Steve La Motte, Building Industry Association of Orange County
Adam Wood, Building Industry Association of Orange County
Tim Strader Jr., Starpointe Ventures
Dee Snow, Garden Communities
Pamela Sapetto, Sapetto Group
Ken Wilhelm, LSA
Karen Blankenzee, Pacific Planning Group
Kimberly Brandt, Community Development Director, City of Newport Beach
Elizabeth Binsack, Community Development Director, City of Tustin

3.2

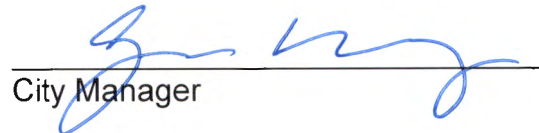


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 25, 2017

TITLE: CITY COUNCIL OVERRIDE OF INCONSISTENCY
DETERMINATION BY THE AIRPORT LAND USE COMMISSION
OF ORANGE COUNTY


Director of Community Development


City Manager

RECOMMENDED ACTION

1. Receive staff report.
2. Reopen the public hearing, receive public input.
3. Close the public hearing.
4. City Council comments and questions.
5. ADOPT CITY COUNCIL RESOLUTION 17-XX – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING FINDINGS TO OVERRIDE THE AIRPORT LAND USE COMMISSION FOR ORANGE COUNTY INCONSISTENCY DETERMINATION FOR THE LANDMARK PROJECT LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX); FILED BY GREAT FAR EAST, LLC

EXECUTIVE SUMMARY

On July 11, 2017, the City Council opened a public hearing related to a request by the applicant to override a decision made by the Airport Land Use Commission (ALUC) for Orange County on a proposed development project in the City (Attachment 1). Specifically, the ALUC found the project to be inconsistent with the Airport Environs Land Use Plan (ALEUP) for John Wayne Airport (JWA). The project is The Landmark, a mixed-use commercial development that includes a 15-story, 386-room hotel and a 15-story office building, located at 18872, 18912 and 18952 MacArthur Boulevard in Planning Area 36, the Irvine Business Complex (IBC).

The City Council was tasked to determine whether it finds that the proposed project is in compliance with the AELUP, thereby overriding the decision of the ALUC. For a project to be in compliance with the AELUP, it must be consistent with the orderly development of the public use airport and the area surrounding the airport so as to promote the overall goals and objectives of the California airport noise standards and to prevent the creation of new noise and safety problems. Based on the Federal Aviation

Administration's (FAA) determination, aviation flight data and projected mitigations, a determination can be made that The Landmark Project complies with the AELUP.

At the conclusion of the hearing, the Council voted to continue the item to the July 25 meeting, requesting more information and additional time to study the project.

An updated City Council Resolution is included as Attachment 5. Updates to the resolution include new recitals pertaining to the July 11 hearing as well as a correction to a letter referenced on page 7 of the resolution.

ANALYSIS

The ALUC for Orange County determined that the proposed project is inconsistent with the AELUP for JWA. The determination was based upon the fact that the hotel and office buildings exceed the horizontal surface for the airport, established at 206 feet above mean sea level (AMSL), and the daily tracks show that aircraft flew at elevations ranging from 305 to 1,428 feet AMSL, with an average height of 860 feet AMSL for the day surveyed. Therefore, in the opinion of the ALUC, the project poses a safety hazard.

Staff finds that there is substantial evidence on the record to support the requested override of the ALUC's finding of inconsistency.

1. The FAA's determination "considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure[s] when combined with the impact of other existing or proposed structures. Th[ese] stud[ies] disclosed that the described structure[s] would have no substantial adverse effect on air navigation."
2. The Irvine City Council and Planning Commission have reviewed the general aviation flight tracks that were provided in a letter from ALUC dated June 26, 2017. These diagrams show a limited number of general aviation aircraft (helicopters and propeller planes) that fly over the site based on a daily survey performed. The daily tracks show that aircraft flew at elevations ranging from 305 to 1,428 feet AMSL, with an average height of 860 feet AMSL for the day surveyed. The office building measures 301 feet AMSL, so the average flight path is at a substantially higher elevation than the project site. The flight tracks show that the flight path for general aviation aircraft using Runway 2 at JWA is located to the east, away from the project site. Additionally, the Landmark Project is not located within established flight paths associated with approach or departure from JWA.

3. In addition to the proposed buildings on the project site, there are several other large buildings within the immediate vicinity. Within the JWA Safety Zone surrounding the airport, there are buildings up to 315 AMSL in height. The proposed Landmark Project would be consistent and compatible with other tall structures in the vicinity that have not presented any hazards to flight operations.
4. Lastly, conditions of approval for the development will ensure that all potential noise impacts on the project are appropriately mitigated and a glare study for all potentially reflective elements of the project will be prepared as a further precaution and protection for commercial and general aviation. In addition to these conditions, Orange County Fire Authority (OCFA) has reviewed the proposed project for compliance with its requirements. OCFA has imposed a number of standard conditions, such as the provision of on-site fire protection access easements and providing an on-site emergency responder digital radio system to ensure adequate fire safety measures are in place.

At the July 11, 2017 public hearing, the City Council requested additional information:

- A. Request for staff to provide the FAA Determinations of No Hazard to Air Navigation issued for the hotel and office buildings. These documents are included as Attachment 2. There are several documents for both the hotel and the office because each determination is based upon the exact height of each corner of the building.
- B. Request for staff to provide the text of Public Utilities Code Sections 21670, 21676(b) and 21676.5, which address override procedures. This document is included as Attachment 3.
- C. Clarification of the difference between an obstruction and a hazard. Staff provides the following response.

Federal Regulation Title 14 Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*, establishes standards for objects affecting navigable airspace. Part 77 includes the following definitions:

An obstruction is any construction on, or alteration of, existing land use that: (1) exceeds 200 feet Above Ground Level (AGL) at its site; or (2) exceeds the height of "imaginary surfaces" which slope up to 20,000 feet beyond the nearest point on the nearest runway longer than 3,200 feet in actual length. The impacts of an obstruction can be satisfactorily mitigated through lighting and marking to ensure that pilots are adequately made aware of its existence. The FAA must be notified in advance of any new structure or alteration of existing structure that falls within those parameters.

A hazard is an obstruction that also impacts arrivals, departures or *en route* procedures; air traffic capacity and/or preexisting development plans at public use airports; and/or affects the operation or efficiency of navigational aids.

As the two buildings of The Landmark Project are considered obstructions, appropriate measures requiring lighting and marking per FAA Advisory Circular 70/7460-1, *Obstruction Marking and Lighting*, were previously applied to the project by the Planning Commission as a condition of approval for the Commercial Master Plan.

In addition to the requested information, the applicant has provided a summary of relevant statutes and court decisions related to federal preemption of Airport Land Use Commission safety concerns, which is included as Attachment 4.

Based upon the technical information and the FAA determinations, staff has determined that the override is justifiable and recommends the City Council approve the request based upon the substantial evidence that this project poses no safety hazards for JWA flight operations.

Correspondence

On July 20, 2017, staff received a follow-up letter from ALUC staff. This letter responds to a number of questions and comments made at the July 11 City Council hearing and is included as Attachment 6.

REPORT PREPARED BY: Stephanie Frady, Senior Planner

ATTACHMENTS

- Attachment 1: City Council Agenda Report Dated July 11, 2017 (without Attachment 5)
- Attachment 2: FAA Determinations of No Hazard to Air Navigation
- Attachment 3: Text of Public Utilities Code Sections 21670, 21676(b) and 21676.5
- Attachment 4: Compendium of Statutes and Regulations
- Attachment 5: City Council Resolution 17-XX
- Attachment 6: Correspondence from ALUC staff dated July 20, 2017

cc: Sean Cao, Great Far East (via email: sean.cao@greatfareast.com)
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Tim Strader, Starpointe Ventures (via email: tj@starpointeventures.com)
Kari Rigoni, Airport Land Use Commission (via email: KRigoni@ocair.com)
Lea Choum, John Wayne Airport (via email: LChoum@ocair.com)
Joel Belding, Principal Planner
File: 00659728-PMPC

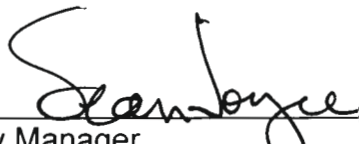


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JULY 11, 2017

TITLE: CITY COUNCIL OVERRIDE OF INCONSISTENCY DETERMINATION BY THE AIRPORT LAND USE COMMISSION OF ORANGE COUNTY


Director of Community Development


City Manager

RECOMMENDED ACTION

1. Receive staff report.
2. Open the public hearing, receive public input.
3. Close the public hearing.
4. City Council comments and questions.
5. ADOPT CITY COUNCIL RESOLUTION 17-XX – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING FINDINGS TO OVERRIDE THE AIRPORT LAND USE COMMISSION FOR ORANGE COUNTY INCONSISTENCY DETERMINATION FOR THE LANDMARK PROJECT LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX); FILED BY GREAT FAR EAST, LLC

EXECUTIVE SUMMARY

Great Far East, LLC filed an application for a Commercial Master Plan to develop The Landmark, a mixed-use commercial development that includes a 15-story, 386-room hotel, a 15-story office building, ground level restaurant/retail space and a combination subterranean parking structure containing 2,089 parking spaces, located at 18872, 18912 and 18952 MacArthur Boulevard in Planning Area 36, the Irvine Business Complex (IBC).

On April 20, 2017, the Airport Land Use Commission (ALUC) for Orange County, which has shared jurisdiction with the City over developments in the vicinity of the airport, voted unanimously finding the proposed Landmark Project inconsistent with the 2008 John Wayne Airport Environs Land Use Plan (AELUP). The ALUC's staff report and decision letter is included as Attachment 1. The ALUC requests that the building height for the hotel component of the project be reduced by 47 feet and the office component by 95 feet. The request by ALUC would require significant redesign of the proposed project.

As a result of the ALUC decision, the applicant has the option to redesign the project and return for a new decision. Alternatively, the City Council may choose to override the ALUC decision at a noticed public hearing. The applicant has requested the City Council consider an override rather than pursuing a new project design.

The City Council must make specific findings that the proposed override is consistent with the purposes stated in Sections 21670, 21676(b) and 21676.5 of the Public Utilities Code. Staff recommends the Irvine City Council adopt the attached resolution, which includes findings in support of the override (Attachment 5).

CITY COMMISSION / BOARD / COMMITTEE RECOMMENDATIONS

On March 22, 2017, the Irvine Subdivision Committee reviewed and unanimously approved, with all members present, an application for Vesting Tentative Parcel Map 2016-139 to reconfigure parcel boundaries on the site into three parcels to facilitate the development of the project. Specifically, the parcel map subdivides the project site, totaling approximately seven acres, to create two numbered parcels, one for a future hotel and one for a future office building, and one lettered parcel for public street dedication along MacArthur Boulevard.

On June 15, 2017, the Irvine Planning Commission considered the Commercial Master Plan application for The Landmark Project and voted 4-0-1 (Commissioners Duong, Kuo, Nirschl and Smith voting in favor; Commissioner Bartlett absent) to approve the project contingent upon the City Council's approval of an override of the ALUC decision (Attachment 2). The Planning Commission reviewed the comment letters provided by the ALUC and John Wayne Airport (JWA) for the project. Specific attention was given to the flight tracks provided, which show that limited small, general aviation aircraft travel over the project site. Additionally, in response to the Airport's comment letter, the Planning Commission added an additional condition of approval on the project requiring glare studies be completed for the proposed office, hotel and solar panels on-site to ensure no impacts to airport operations occur.

On June 20, 2017, the Irvine Transportation Commission reviewed the Access Study for The Landmark Project. An Access Study analyzes a project's new or altered access points and the interface of these access points with the existing roadways. The study serves to assist with design of these access points and, if necessary, analyzes forecasted roadway operations as it relates to these new or altered access points. The Transportation Commission unanimously voted, with all members present, to accept the Access Study.

AIRPORT LAND USE COMMISSION HEARING

On April 20, 2017, the ALUC considered the proposed Landmark Project. When a project site is located within proximity of JWA, it is subject to the AELUP and state law requires the ALUC to make a determination whether the proposed land use is consistent with its

regulations and restrictions. At its meeting on April 20, the ALUC voted unanimously finding the proposed project inconsistent with the AELUP.

ANALYSIS

In January and March 2017, in accordance with Irvine Zoning Ordinance requirements for building height in the IBC, the Federal Aviation Administration (FAA) issued *Determinations of No Hazard to Air Navigation* for the proposed 253-foot high office and 204-foot high hotel buildings on the project site. The heights listed are measured above ground level. The FAA has sole review authority to determine whether proposed developments will result in hazards or impediments to air navigation safety.

Specifically, the *Determinations of No Hazard to Air Navigation* are based upon the results of aeronautical studies prepared by the FAA for the hotel and office buildings. The studies considered and analyzed the impact of the project on:

1. existing and proposed arrival, departure, and *en route* procedures for aircraft operating under both visual flight rules and instrument flight rules;
2. all existing and planned public-use airports, military airports and aeronautical facilities; and,
3. cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures.

The *Determinations of No Hazard to Air Navigation* states that the buildings are considered to be an obstruction, but not a hazard. An obstruction is defined as a building that is at a height in excess of a certain horizontal plane, but with the incorporation of mitigation measures (including such items as lighting and markings) will not pose a hazard to air navigation.

The studies determined that the hotel and office buildings would have no substantial adverse effect on air navigation. Additionally, the conclusion states that the “proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.”

At its meeting on April 20, the ALUC did not concur with the FAA *Determinations of No Hazard to Air Navigation* issued for the project and, instead, voted unanimously to find that the proposed project is inconsistent with the AELUP. Specifically, the ALUC requested the building height for the hotel be reduced by 47 feet and the office by 95 feet, to a maximum of 206 feet above mean sea level (AMSL), as airspace above 206 feet is reserved for air navigation. This request would require significant redesign of the proposed project.

Because of the ALUC determination, the applicant has the option to either 1) revise the project and return for a new decision, or 2) request the City Council override the ALUC

decision during a public hearing and make specific findings that the proposed override is consistent with Section 21676 of the Public Utilities Code. The applicant has decided not to redesign the project and has requested City Council consideration of an override.

Pursuant to state law, the City is required to initiate the ALUC override process to consider approval of the proposed project. The override process requires a 45-day advance notice to the ALUC of the City's intent to override its determination. Notice of intent to consider an override was provided to ALUC on May 25, 2017 (Attachment 3).

A two-thirds vote of the City Council is required to overrule a decision of the ALUC, and this action must occur prior to a final decision being made on the proposed project. Staff believes that the City Council should support the override for the following reasons:

1. State law states that the ALUC serves only as an "advisory body" to the City Council.
2. The height of the buildings is in compliance with the Irvine Zoning Ordinance, which defers to the FAA. The FAA is the single authority on air navigation safety and has issued official *Determinations of No Hazard to Air Navigation* for the office and hotel buildings proposed, which conclude:
 - a. Details of the proposal were distributed as Public Notice to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structures, were received as a result of the Public Notice distribution.
 - b. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for JWA.
 - c. Upon recommendation from the FAA, the project applicant has voluntarily lowered the office structure height by 36 feet from the originally filed proposal not to exceed 301 feet AMSL to mitigate any adverse effect upon instrument procedural operations at JWA.
 - d. No further attempt to negotiate the proposed structure to a lower height is considered necessary.
 - e. A comment letter from JWA to the FAA noted that the height of both buildings is classified as an obstruction under Federal Aviation Regulation Part 77. JWA, therefore, recommended that the structures be reduced to a height not exceeding 206 feet AMSL, which would put them below the JWA Horizontal Surface. However, the FAA allows specific measures to be applied to buildings classified as obstructions. These measures include

the requirement to use specific lighting and markings to mitigate the presence of an obstruction. In implementing the measures, the buildings are not considered to be hazardous.

3. As recommended by the FAA, a condition of approval was added to Planning Commission Resolution 17-3615, approving the Commercial Master Plan for The Landmark Project, which requires the hotel and office building to be marked and lighted in accordance with FAA Advisory Circular 70-7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5 (Red) & 12.
4. The proposed 15-story office building is not unique as there are several other tall buildings in the vicinity of the project site. Surrounding multi-story buildings include:
 - a. 2600 Michelson – 16 stories (constructed in 1986),
 - b. Tower 17, 18881 Von Karman – 17 stories (1987),
 - c. Jamboree Center, 1-5 Park Plaza – 19 stories (1989-90),
 - d. 2030 Main Street – 16 stories (1990),
 - e. Lakeshore Tower, 18007 Von Karman – 18 stories (1990),
 - f. MacArthur Court, 4675 MacArthur Ct, Newport Beach (the two towers located closest to the project site) – 15 stories (1985), and
 - g. 3161 Michelson – 19 stories (2007).
5. The flight tracks provided in the JWA comment letter show sporadic flight paths of general aviation aircraft (*i.e.*, helicopters and/or small private planes) over the site. The flight tracks provide detailed depictions of the flight path for aircraft using the smaller runway and this flight path is located to the east, outside the project site. The Landmark Project is not located within flight paths associated with approach or departure from JWA.

All of the reasons above, as supplemented by the findings set forth in the attached City Council Resolution, support the City Council override of the ALUC inconsistency determination.

Should the City Council override the ALUC decision, the City will retain its status as a consistent agency with the AELUP and the City will not bear any liability in the event of an accident.

The City Council last issued an ALUC override in December 2005 for a general plan amendment to allow a residential project in the IBC. The project was Phases III – IV of the Plaza, Irvine, located at the corner of Jamboree Road and Diploma. The two buildings approved as part of that project were 200.9 feet AMSL and 115 feet AMSL.

Required Noticing and Correspondence

The initial step in the override process is to notify the ALUC and State Division of Aeronautics of the City's intention to overrule the ALUC decision. This notification must take place a minimum of 45 days prior to a final decision on the project and was sent to ALUC on May 25, 2017 (Attachment 3), within the prescribed timeframe. In turn, the ALUC/State may provide comments to the City for consideration up until 15 days prior to the hearing date.

On June 19, 2017, staff received a comment letter from the California Division of Aeronautics. This letter, included as Attachment 4, discusses the preliminary draft findings provided by staff in a May 25, 2017 letter. In response to the state's letter, staff has added additional supporting evidence to the findings in the attached resolution. New information added includes, for example, citations to the legal basis for the various findings; specifications of the tall buildings surrounding the project site to demonstrate that the project height is not unique; and a discussion of the flight tracks over the project site.

On June 26, 2017, staff received a second comment letter from the ALUC for Orange County. This letter is also included in Attachment 4. It reiterates the comments made previously during both the ALUC hearing in April 2017 and in the letter to the Planning Commission dated June 2017. Comments include the request to lower the heights of both the hotel and office building and that there are general aviation flight paths over the project site.

New information provided in this letter includes the fact that there were previous overrides granted to allow the other tall buildings in the vicinity of the project site, which in turn, caused JWA to modify general aviation operations. From review of the flight tracks included with the ALUC letter, the project site is not in the established flight path for JWA and general aviation aircraft have the option to fly elsewhere, not over the project site. Finally, the ALUC advises that Section 11010 of the California Business & Professions Code applies to the project, which requires placement of notice of airport proximity in sale/lease documentation. In response to the ALUC letter, staff has updated the attached resolution to include a discussion of this requirement in the findings.

ALTERNATIVES CONSIDERED

The City Council could decide not to support the request for an override of the ALUC decision or the City Council could direct the applicant to re-design the project to meet the maximum height requirements set forth in the ALUC staff report. This would require further review of the project by ALUC and the Planning Commission.

FINANCIAL IMPACT

The City's Budget Office estimates that the proposed hotel would generate approximately \$632,000 in transient occupancy taxes (TOT) and \$158,000 in Hotel Improvement District assessment fees for the first year of operation. For subsequent years, TOT is estimated to be \$1.3 million and the Hotel Improvement District assessment fees are estimated to be \$316,000 annually. These calculations are based on occupancy levels for similar hotels in the City, an average citywide room rate (\$165 per night), and factors in market saturation. The applicant anticipates that the TOT generated by this hotel will be higher than estimated as the room rates will likely be higher than the average rate used in the City's calculation.

The property tax revenue generated from the project would also increase. According to data provided by the applicant, current property taxes paid to the City total approximately \$24,000 per year. At full buildout, the project is expected to generate property taxes of \$270,000 per year for the City. The potential sales tax revenue generated by the project is estimated to be approximately \$100,000 per year based on restaurant and conference center sales of similar square footage and retail markets. Office employees would generate a nominal amount of sale tax revenue based on incidental spending in the City.

REPORT PREPARED BY: Stephanie Frady, Senior Planner

ATTACHMENTS

- Attachment 1: ALUC Staff Report dated April 20, 2017 and Decision Letter
- Attachment 2: Planning Commission Agenda Report dated June 15, 2017 with Attachments
- Attachment 3: Staff Notification Letter to ALUC dated May 25, 2017
- Attachment 4: Correspondence
- Attachment 5: City Council Resolution 17-XX

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Tim Strader, Starpointe Ventures (via email: tj@starpointeventures.com)
Kari Rigoni, Airport Land Use Commission (via email: KRigoni@ocair.com)
Lea Choum, John Wayne Airport (via email: LChoum@ocair.com)
Joel Belding, Principal Planner
File: 00659728-PMPC



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY
3160 Airway Avenue Costa Mesa, CA 92626 (949) 252-5170 Fax (949) 252-6012

**REGULAR MEETING OF THE
AIRPORT LAND USE COMMISSION
FOR ORANGE COUNTY**

April 20, 2017

PLEASE NOTE LOCATION

TIME: 4:00 p.m. PLACE: John Wayne Airport
3160 Airway Avenue
SUBJECT: Regular Meeting Costa Mesa, CA 92626
Airport Commission Hearing Room

NOTICE

PERSONS ADDRESSING THE COMMISSION ARE REQUESTED TO GIVE THEIR NAMES AND ADDRESSES FOR THE RECORD.

EXCEPT AS OTHERWISE PROVIDED BY LAW, NO ACTION WILL BE TAKEN ON ANY ITEM NOT APPEARING IN THE FOLLOWING AGENDA. THE RECOMMENDED ACTIONS STATED IN THE AGENDA ITEM OR UNDERLYING STAFF REPORTS SIMPLY REFLECT THE RECOMMENDATION OF THE COMMISSION STAFF AND THE DISCUSSION AND ACTION TAKEN BY THE COMMISSION MAY DEVIATE THEREFROM.

AT THE CONCLUSION OF THE MEETING ON ITEMS LISTED IN THIS AGENDA, MEMBERS OF THE PUBLIC MAY ADDRESS THE COMMISSION ON ITEMS OF INTEREST TO THE PUBLIC THAT ARE WITHIN THE SUBJECT MATTER JURISDICTION OF THE COMMISSION.

ALL SUPPORTING DOCUMENTATION IS AVAILABLE FOR PUBLIC REVIEW IN THE EDDIE MARTIN ADMINISTRATION BUILDING LOCATED AT 3160 AIRWAY AVENUE, COSTA MESA, CA 92626 DURING REGULAR BUSINESS HOURS, 8:00 A.M. – 5:00 P.M. MONDAY THROUGH FRIDAY. AGENDA ITEMS ARE ALSO AVAILABLE BY CALLING (949) 252-5170.

AGENDA

ORDER:

PLEDGE:

APPROVAL OF MINUTES:

Regular Meeting of November 17, 2016:

Commissioners Present: Gerald Bresnahan, Gary Miller, Diane Dixon, Stephen Beverburg, Jeff Mathews, Brendan O'Reilly

Alternate Commissioners Present: Patricia Campbell, Tony Khoury, Schelly Sustarsic

Commissioners Absent: Mark Monin

NEW BUSINESS:

1. City of Irvine Request for Consistency review of the Landmark Project:

The project proponent, Great Far East, The Investment & Management Co, is proposing to construct a hotel and office building located in the western portion of the City of Irvine. The proposed project includes construction and operation of a 19-story, 448,200 square foot office building; a 15-story, 323,415 square foot, 386-room hotel; 13,665 square feet of retail and restaurant space; and a 2,089-space parking structure. The proposed site is a 7-acre site located at 18872, 18912 and 18952 MacArthur Boulevard. The proposed project site is surrounded by a mix of land uses including office, multi-family residential, commercial, hotel and retail. The project site currently contains office buildings and parking which will all be demolished to implement the proposed project.

Recommendation:

1. That the Commission find the proposed Landmark Project Inconsistent with the *AELUP for JWA* per *AELUP* Sections 1.2 and 2.1.4, and PUC Section 21674 which state that the Commission is charged by PUC Section 21674(a) "to assist local agencies in ensuring compatible land uses in the vicinity of ...existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses," and PUC Section 21674(b) "to coordinate planning at the state, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare."
2. That the Commission find the proposed Landmark Project Inconsistent with the *AELUP for Heliports* per Section 1.2 which states that the *AELUP* seeks to protect the public from the adverse effects of aircraft noise, to ensure that sites are not proposed for locations where people and facilities are concentrated, and to ensure that structures or activities in the area would not adversely affect the navigable airspace.

2. Administrative Status Report:

Receive and file memo regarding various administrative activities/issues, Commission correspondence sent/received, and pending project reviews.

Receive staff update on JWA General Aviation Improvement Program.

3. **Proceedings with Consistent Agencies:**

Aliso Viejo (April 15, 2004), Anaheim, Buena Park, Costa Mesa (October 17, 2008), Cypress (August 16, 2001), Fullerton (June 17, 2004), Garden Grove, Huntington Beach, Irvine, Laguna Hills, Lake Forest (June 15, 2006) Los Alamitos, Mission Viejo, Newport Beach (2006), Santa Ana (December 18, 2008), Stanton, Tustin, Westminster, and County of Orange.

4. **Proceedings with Inconsistent Agencies:**

Laguna Woods (April 19, 2001) and Seal Beach.

5. **Items of Interest to the Commissioners:**

Commissioners may comment on agenda or non-agenda matters, and ask questions of or give direction to staff; provided that no action may be taken on off-agenda items.

6. **Items of Interest to the Public:**

Members of the public may address the Commission regarding any item within the subject matter jurisdiction of the Airport Land Use Commission provided that no action may be taken on off-agenda items unless authorized by law.

ADJOURNMENT:

Next Regular Meeting: May 18, 2017



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

AGENDA ITEM 1

April 20, 2017

TO: Commissioners/Alternates

FROM: Kari A. Rigoni, Executive Officer

SUBJECT: City of Irvine Request for Consideration of the Landmark Project proposed at 18872, 18912 and 18952 MacArthur Boulevard

Background

The project proponent, Great Far East, The Investment & Management Co, is proposing to construct a hotel and office building located in the western portion of the City of Irvine. The proposed project includes construction and operation of a 19-story, 448,200 square foot office building; a 15-story, 323,415 square foot, 386-room hotel; 13,665 square feet of retail and restaurant space; and a 2,089-space parking structure. See Attachment 1 to view the Site Plan.

The proposed site is a 7-acre site located at 18872, 18912 and 18952 MacArthur Boulevard (See Attachment 2 for the Project Location Map). The site is generally bounded by MacArthur Boulevard and John Wayne Airport to the north and west, Douglas Street to the east, and Campus Drive to the south. The proposed project site is surrounded by a mix of land uses including office, multi-family residential, commercial, hotel and retail. The project site currently contains office buildings and parking which will all be demolished to implement the proposed project.

The project is being referred to your Commission because of the project's location within the Airport Planning Area for JWA and because the proposed project building heights exceed 200 feet above ground level (AGL). The hotel is proposed to 206 feet AGL and the office building is proposed to 253 feet AGL.

The City of Irvine has scheduled a public hearing on the proposed project as follows:

May 2017 Planning Commission

AELUP Issues

The project has been evaluated for conflicts with respect to aircraft noise, building heights, flight tracks, safety zones and the development of heliports.

Regarding Aircraft Noise Impacts

The proposed project is located within the JWA Master Plan 60 dBA CNEL noise contour (see Attachment 3). The Draft Addendum to the IBC Vision Plan and Mixed Use Overlay Zoning Code Environmental Impact Report for the Landmark Mixed-Use Project includes Project Design Feature (PDF 9-4) stating that the interior standard of 45 dBA CNEL will be achieved and that parks within the 60 dBA CNEL noise contour shall include signage indicating their proximity to JWA and related airport noise.

Regarding Height Restrictions

In Section 2.1.3 of the *JWA AELUP*, the Commission has incorporated the standards for height limits for determining obstructions and has incorporated the definitions of “imaginary surfaces” for airports as defined in Federal Aviation Regulations (FAR) Part 77. The proposed project is located within the FAR Part 77 “imaginary surfaces” referral area (see Attachments 4 and 5). The proposed heights for the project are 253 feet above mean sea level (AMSL) for the hotel and 301 feet AMSL for the office building. Both buildings would surpass the notification surface which would be penetrated at 95 feet AMSL.

Attachment 5 shows that the proposed project is located within the horizontal surface for JWA which would be penetrated at 206 feet AMSL. The proposed building heights at this site are 253 feet above mean sea level (AMSL) for the hotel and 301 feet AMSL for the office building. Both of the proposed buildings penetrate the horizontal surface. The hotel penetrates the surface by 47 feet and the office building by 95 feet. The airspace above 206 feet AMSL is reserved for air navigation. The project applicant filed Form 7460-1 with the Federal Aviation Administration (FAA) and has received a Determination of No Hazard to Air Navigation for both buildings. The FAA Aeronautical Study No. 2016-AWP-5166-OE for the hotel building and Aeronautical Study No. 2016-AWP-5171-OE for the office building are included as Attachment 6. Comments from JWA were sent to FAA regarding these FAA Aeronautical Studies and are included as Attachment 7.

Regarding Flight Tracks and Safety Zones

As shown in Attachment 8, the proposed project is located within Safety Zone 6, the traffic pattern zone, and would be subject to overflight from general aviation (GA) aircraft. Attachment 9 shows the flight tracks over the proposed project site. Exhibits were prepared to demonstrate the elevations of planes flying over the property. The exhibits in Attachment 9 show various days of normal operational flight tracks. Exhibits demonstrating general aviation operations for Wednesday, December 7, 2016 and Saturday, December 10, 2016 show some aircraft flying at 301 feet AGL (shown in blue) to 601 feet AGL (shown in red) over the proposed project site.

The exhibits showing general aviation operations for Tuesday, March 28, 2017 and Saturday, April 1, 2017 have a corresponding print out listing each flight, the time of day and elevation above the proposed project site. On both days, there were flights flying at 305 feet AGL to 500 feet AGL. With the proposed building heights of 253 feet AMSL and 301 feet AMSL, the buildings will be in close proximity to airspace used by general aviation aircraft that fly within the general traffic pattern consistently throughout the day. The flight track information suggests it would be prudent to reduce the proposed project building heights. Building the proposed project to 301 feet AMSL may impact flight patterns for existing GA operations at JWA and potentially cause safety concerns for aircraft and structures within that airspace.

Heliports

Heliports are not proposed as part of project. The City of Irvine General Plan includes language that states proposed heliport projects must comply with FAA Regulations, Caltrans Division of Aeronautics and the *AEUP for Heliports* in the development of heliports.

Helicopter operations are also a part of the JWA general aviation operations over the proposed project site. The exhibits in Attachment 9 for Tuesday, March 28, 2017 and Saturday, April 1, 2017 also include known helicopter operations.

Environmental Compliance

A Draft Addendum to the IBC Vision Plan and Mixed Use Overlay Zoning Code Environmental Impact Report for the Landmark Mixed-Use Project is being prepared as the CEQA documentation to analyze the potential impacts of the project. It will be released as an attachment to the City of Irvine Planning Commission staff report for their consideration during decision-making on the project.

Conclusion

Attachment 10 to this report contains excerpts from the project submittal package received from the City of Irvine for your reference. ALUC staff has reviewed this project with respect to compliance with the *AEUPs for JWA and Heliports*, including review of height restrictions, imaginary surfaces and flight tracks over the proposed project area.

The project is located within the horizontal surface for JWA and falls within the Safety Zone 6, Traffic Pattern Zone for JWA. As demonstrated by the flight track exhibits, this area would be subject to overflight activity. The airspace above 206 feet AMSL is reserved for air navigation and the proposed hotel would penetrate the horizontal surface by 47 feet, and the office building by 95 feet.

For your information, JWA staff provided comments on the Parcel Map 2016-139 for the proposed project on March 20, 2017 to the City of Irvine Subdivision Committee (See Attachment 11). The letter emphasized that the flight tracks over the proposed project site show GA aircraft flying at elevations starting at 301 feet AMSL over the proposed project site. Building the proposed project to 301 feet AMSL may impact the flight patterns for existing GA operations at JWA and potentially cause safety concerns for aircraft and structures within that airspace.

In addition, the letter stated that it is the County's policy to maintain and ensure the safe operation of JWA and therefore, we continue to recommend that the structure height be reduced to below 206 feet AMSL, including all rooftop equipment and/or architectural details. For the safe operation of GA air traffic, the airspace above 206 feet AMSL needs to be reserved for air navigation.

Per Section 1.2 of the *JWA AEUP*, the purpose of the *AEUP* is to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan seeks to protect the public from the adverse effects of aircraft noise to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace. Additionally, Section 2.1.4 of the *JWA AEUP* and PUC Section 21674 charge the Commission to coordinate at the local level to ensure compatible land use planning. Therefore, because the proposed project would be entering

airspace reserved for air navigation by penetrating the horizontal surface for JWA, staff is recommending the following:

Recommendation:

1. That the Commission find the proposed Landmark Project Inconsistent with the *AELUP for JWA* per *AELUP* Sections 1.2 and 2.1.4, and PUC Section 21674 which state that the Commission is charged by PUC Section 21674(a) “to assist local agencies in ensuring compatible land uses in the vicinity of ...existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses,” and PUC Section 21674(b) “to coordinate planning at the state, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare.”
2. That the Commission find the proposed Landmark Project Inconsistent with the *AELUP for Heliports* per Section 1.2 which states that the *AELUP* seeks to protect the public from the adverse effects of aircraft noise, to ensure that sites are not proposed for locations where people and facilities are concentrated, and to ensure that structures or activities in the area would not adversely affect the navigable airspace.

Respectfully submitted,



Kari A. Rigoni
Executive Officer

Attachments:

1. Project Site Plan
2. Project Location Map
3. JWA CNEL Contours
4. FAR Part 77 AELUP Notification Area for JWA
5. FAR Part 77 JWA Obstruction Imaginary Surfaces
6. FAA Aeronautical Study No. 2016-AWP-5166-OE and 2016-AWP-5171-OE
7. JWA letters to FAA
8. JWA Safety Zone Reference Map
9. Flight Tracks over proposed project
10. Submittal Package Excerpts from City of Irvine
11. JWA letter to the City of Irvine Subdivision Committee Parcel Map 2016-139



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

May 5, 2017

Stephanie Frady
City of Irvine
P.O. Box 19575
Irvine, CA 92623

Subject: Landmark Project

Dear Ms. Frady:

On April 20, 2017 the Airport Land Use Commission (ALUC) for Orange County considered the subject project. The matter was duly discussed, moved, seconded, and carried unanimously by the Commission to find the City of Irvine proposed Landmark Project Inconsistent with the *Airport Environs Land Use Plans (AELUPs) for John Wayne Airport (JWA) and Heliports* based on the following:

1. That the proposed Landmark Project is Inconsistent with the *AELUP for JWA* per *AELUP* Sections 1.2 and 2.1.4, and PUC Section 21674 which state that the Commission is charged by PUC Section 21674(a) "to assist local agencies in ensuring compatible land uses in the vicinity of ...existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses," and PUC Section 21674(b) "to coordinate planning at the state, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare."
2. That the proposed Landmark Project Inconsistent with the *AELUP for Heliports* per Section 1.2 which states that the *AELUP* seeks to protect the public from the adverse effects of aircraft noise, to ensure that sites are not proposed for locations where people and facilities are concentrated, and to ensure that structures or activities in the area would not adversely affect the navigable airspace.

Please contact ALUC staff at (949) 252-5123 or via email at lchoum@ocair.com if you require additional information or have questions regarding this proceeding.

Sincerely,

Kari A. Rigoni
Executive Officer



REQUEST FOR PLANNING COMMISSION ACTION

MEETING DATE: JUNE 15, 2017

TITLE: COMMERCIAL MASTER PLAN FOR THE LANDMARK, A MIXED USE PROJECT CONTAINING HOTEL, RETAIL AND OFFICE USES LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX)


Director of Community Development

RECOMMENDED ACTION

1. Open public hearing; receive public input; Commission comments and questions.
2. Close public hearing.
3. Adopt RESOLUTION NO. 17-3615 – A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF IRVINE, CALIFORNIA, APPROVING COMMERCIAL MASTER PLAN 00659728-PMPC TO DEVELOP THE LANDMARK, A 15-STORY, 386-ROOM HOTEL, A 15-STORY OFFICE BUILDING AND GROUND-LEVEL RETAIL/RESTAURANT SPACE, LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX), CONTINGENT ON THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA OVERRULING THE DETERMINATION OF THE AIRPORT LAND USE COMMISSION OF THE COUNTY OF ORANGE THAT THE PROPOSED PROJECT IS NOT CONSISTENT WITH THE 2008 JOHN WAYNE AIRPORT ENVIRONS LAND USE PLAN; FILED BY GREAT FAR EAST, LLC

EXECUTIVE SUMMARY

Great Far East, LLC has filed an application for a Commercial Master Plan to develop The Landmark, a mixed use commercial development which includes a 15-story, 386-room hotel, a 15-story office building, ground level restaurant/retail space, and a combination subterranean parking structure containing 2,089 parking spaces, located at 18872, 18912 and 18952 MacArthur Boulevard in Planning Area 36, the Irvine Business Complex (IBC) (PC Attachment 1).

The project is located in the 5.1 IBC Multi-Use zoning district. A Master Plan is required, per Section 2-17-2(C)(2) of the Irvine Zoning Ordinance, as the IBC site includes two or more principal uses.

The proposed Commercial Master Plan establishes site level design standards and the exterior architectural treatment for the hotel, retail and office buildings. It also addresses on-site amenities provided for the hotel as well as parking, landscaping and vehicular and pedestrian circulation throughout the project site.

Within the IBC, the overall amount of development allowed is regulated by the development intensity value (DIV) budget assigned to each parcel. For the subject project site, there exists a cumulative DIV budget of 1,122 AM, 1,321 PM and 13,638 daily DIVs. The proposed project requires 779 AM, 976 PM and 11,180 daily DIVs, which is entirely covered by the site's budget.

As such, no transfer of development rights is necessary to facilitate the development of the project and, therefore, per Irvine's Traffic Impact Analysis Guidelines, the requirement for a Traffic Impact Analysis is not triggered. In the absence of a Traffic Impact Analysis, an Access Study was completed to analyze the proposed project. The study found that there would be "no impacts to vehicle access" and that "the proposed project will not significantly affect the surrounding circulation system." The City's Transportation Division staff reviewed the Access Study and supports the conclusions contained therein.

Staff reviewed the proposed project and determined it complies with all applicable standards of the Irvine Zoning Ordinance and is compatible with existing and anticipated future uses in the vicinity. Refer to the PC Information Sheet for additional details on the project (PC Attachment 2). Staff further determined that the proposed project will not be detrimental to the public health, safety or welfare, or be materially injurious to properties or improvements in the vicinity, and that it will be adequately serviced by existing utilities and facilities.

In the case of the proposed project, the Airport Land Use Commission (ALUC) for Orange County previously reviewed the proposed project and found it to be inconsistent with the 2008 John Wayne Airport Environs Land Use Plan (AELUP). This issue is discussed in detail later in this report; however, it means that the City Council must vote to override this decision if the project is to be approved. Consequently, an affirmative decision by the Planning Commission on the project would be contingent upon the City Council's approval of an override of the ALUC inconsistency determination.

Therefore, staff recommends the Planning Commission approve Commercial Master Plan 00659728-PMPC, subject to the draft conditions set forth in Planning Commission Resolution No. 17-3615 (PC Attachment 6) and contingent on the City Council overriding the ALUC inconsistency determination.

COMMISSION / BOARD / COMMITTEE RECOMMENDATION

On March 22, 2017, the Irvine Subdivision Committee reviewed and unanimously approved, with all members present, an application for Vesting Tentative Parcel Map

2016-139 to reconfigure three lots and one parcel into three parcels on the project site. Specifically, the parcel map subdivides the project site, totaling approximately seven acres, to create two numbered parcels, one for a future hotel and one for a future office building, and one lettered parcel for public street dedication along MacArthur Boulevard.

On April 20, 2017, the ALUC for Orange County considered the proposed Landmark Project. When a development project is subject to the AELUP, as the project site is located within close proximity to John Wayne Airport, state law requires the ALUC to make a determination whether the proposed land use is consistent with its regulations and restrictions. At its meeting on April 20th, the ALUC voted unanimously finding the proposed project inconsistent with the AELUP.

ANALYSIS

Surrounding Uses and Setting

The approximately seven-acre, irregularly-shaped project site is located in the western portion of the City of Irvine. The project site is generally bounded by MacArthur Boulevard and John Wayne Airport to the west, Douglas (a street) to the north and east, and an existing nine-story office building (19000 MacArthur Boulevard), Campus Drive and Martin (a street) to the south. Addresses associated with the project include 18872, 18912, and 18952 MacArthur Boulevard. The City of Irvine/City of Newport Beach corporate boundary is located just south of the site along Campus Drive/Irvine Avenue.

The subject lots/parcels are designated 5.1 IBC Multi-use on the City of Irvine Zoning Map. The City's General Plan Land Use Map designates the project site as Urban and Industrial. Specific land uses located in the vicinity of the project site include:

- North: Hilton Irvine / Orange County Airport Hotel (18800 MacArthur Boulevard)
- East: Carlyle Apartments (18880 Douglas)
- South: Campus-MacArthur Court Office Park (19000 MacArthur Boulevard)
- West: John Wayne Airport

The project site supports both office and restaurant uses. A four-story, 49,104-square-foot office building (18872 MacArthur Boulevard) is located on the northern corner of the project site, and a similar four-story, 47,118-square-foot office building (18952 MacArthur Boulevard) is at the southwest corner of the site. A stand-alone, 9,821-square-foot restaurant building (18972 MacArthur Boulevard) is located along the western portion of the project site between the two office buildings. In addition to these buildings, surface parking lots and ornamental landscape areas compose the balance of the project site. All existing development would be demolished should the proposed project be approved.

Project Description

The proposed project includes construction and operation of a 15-story, 448,200-square-foot office building; a 15-story, 323,415-square-foot, 386-room hotel; 13,665 square feet of retail and restaurant space; and a 2,089-space parking structure (PC Attachment 3).

The hotel building would be located on the northern portion of the project site, directly south of the intersection of MacArthur Boulevard and Douglas. The proposed hotel is a full-service hotel with 21,445 square feet of meeting and conference space, 5,043 square feet of restaurant and bar use on the ground floor, a 2,631 square-foot fitness center/spa, a rooftop lounge, swimming pool and outdoor deck. It is anticipated that the majority of guests staying at the hotel would be travelers conducting business in and around the IBC and the City of Irvine. The hotel would be located within walking distance of John Wayne Airport, and numerous office complexes and corporate headquarters.

A ground-level retail/restaurant space would be located immediately adjacent to the hotel building and partially front along Douglas. This area would be topped by the pool deck serving the hotel. There is also a stand-alone building planned within the interior loop drive area for the valet area and the site entrance/exit drive. The valet entrance and exit ramps accessing the subterranean garage would be located beneath this building.

The office building would be located on the southern part of the project site, adjacent to the existing off-site office building located on the northeast corner of the intersection of MacArthur Boulevard and Campus Drive.

The entire project site would sit atop a two level subterranean garage. There will be 1,060 parking spaces serving the hotel (valet only), retail and office (long-term) located underground. In addition to the subterranean garage, there will be a five level, above-ground parking structure which wraps around the office building along MacArthur Boulevard and the southern property line. This portion of the structure will contain 1,029 spaces serving the office building.

Access to the project site and parking structure will be provided via a proposed right-in/right-out driveway on MacArthur Boulevard and two existing full-access driveways on Douglas (one main driveway for employees and guests and a service-only access for maintenance and delivery vehicles). The service-only access consists of an inbound-only driveway and an outbound-only driveway.

Finally, sidewalk connections to all adjacent streets and for internal pedestrian access will be provided.

Design

The hotel and office buildings and associated improvements have been designed with a strong and appropriately scaled framework of architectural and landscape elements.

High-quality development features would be provided through site design (e.g., building orientation, screening and placement of service areas), architecture (e.g., mass, scale, form, style, material, and color) and streetscape elements (e.g., lighting, paving materials). Overall, the proposed project would enhance and strengthen the existing quality of the project site through new landscaping, hardscape, and other improvements both on site and along the public rights-of-way.

Specifically, the buildings feature a contemporary design, entirely skinned by large glass windows and prominent steel window frames for architectural interest. This design moves away from the mix of stone, concrete and glass found on the existing nearby office buildings. When compared with other hotel and office buildings in the IBC, as well as other such buildings throughout the City of Irvine and in the nearby adjacent City of Newport Beach, the scale and massing of the proposed project would be consistent with existing development in both the immediate and in the broader project area.

For example, within an approximately 0.5-mile radius of the project site, there are several hotel or office buildings of similar size and height, including the 10-story Radisson Hotel Newport (4545 MacArthur Boulevard), the 15-story MacArthur Court office campus (4665 through 4695 MacArthur Court), the 17-story Airport Tower office building (18881 Von Karman Avenue), the 11-story Atrium office building (19100 and 19200 Von Karman Avenue), and the 19-story Lakeshore Towers office campus (18007 through 18191 Von Karman Avenue).

The design of the above ground parking structure is similar to existing structures located in the Spectrum Center area of the City. It will be painted white and have large horizontal rectangular cut outs along the sides. There are metal screens, to allow landscape screening to grow upwards, located on the ground level of the parking structure on both the MacArthur Boulevard side and the southern property line, as well as on all levels to fully screen the portion of the structure facing Douglas.

A portion of the fourth level of the parking structure, along the southern property line near Campus Drive, has been designed with landscaping and provides an outdoor activity area. This open space area will include a bocce court, central gathering area and a secondary seating area for the use of the office tenants. Solar panel shade structures are proposed at the upper level of the parking structure. Additionally, landscape screening is proposed and will utilize a combination of existing Pine and Poplar trees (off-site along the parking structure on the site to the immediate south), palm trees, African Fern Pine trees and hedges along the base of the structure.

In addition to its compatibility with surrounding development, the parking structure is of a similar design to the structures constructed to serve the office towers at 200 and 400 Spectrum Center Drive. The design of those other structures was refined after Planning Commission review and in accordance with conditions of approval that were placed on the projects at the time of their approval.

Landscaping / Signage

As discussed above, the site will receive an entirely new landscape treatment. Palm, pine and other trees (to be determined at a later date) will be planted along the property frontages and within the interior of the site. Hedges and flowers will also be planted around the exterior edges of the buildings. The street trees planned are consistent with the City's Master Streetscape Plan and the site landscape coverage of 23 percent exceeds the minimum requirement of 15 percent.

With regard to signage, the project plans show a conceptual primary building sign to be located on the hotel building, at grade, near the corner of the Douglas and MacArthur Boulevard. This primary sign, and all other signage proposed for the project, is not being approved in conjunction with this Master Plan and will be processed under a separate application.

Valet Service

Valet parking is proposed for the hotel only, in accordance with Section 4-8-1 (Valet Parking Operation Standards) of the Irvine Zoning Ordinance. All hotel guests will be required to utilize the valet parking service. Hotel guests will not be able to use the gated parking structure entrance for the office and retail/restaurant uses. Office and retail/restaurant guests will not be able to use the hotel's valet parking services.

Required Parking for On-site Uses

The overall parking requirement for the proposed project is 1,920 stalls. A total of 2,089 stalls are provided for a surplus of 169 stalls. A breakdown of the parking requirements per use follows.

Office: The parking rate for office, per Section 4-3-4 of the Irvine Zoning Ordinance, is four stalls per 1,000 square feet for the first 250,000 gross square feet plus two stalls per 1,000 square feet over 250,000 square feet. As such, the proposed office component of the project requires a minimum of 1,397 stalls. The project includes a total of 1,548 stalls dedicated to the office use, in compliance with the Zoning Ordinance requirement, which is broken down as follows: 830 long-term parking stalls, 153 full-sized stalls and eight compact stalls. In addition to the general use stalls, there are 11 handicapped accessible stalls, 22 motorcycle parking stalls and space for parking 110 bicycles proposed; all of which fully comply with the applicable Zoning Ordinance provisions.

Retail/Restaurant: As retail and restaurant uses have different parking requirements, staff used the restaurant rate to determine the required parking total as it requires a higher parking stall allocation. The parking rate for restaurant, per Section 4-3-4 of the Irvine Zoning Ordinance, is one stall per 75 square feet of gross floors area. As such, the proposed office component of the project requires a minimum of 183 stalls. A total of

183 full-size stalls and two accessible stalls are reserved for the restaurant/retail space on-site, in compliance with the Zoning Ordinance requirement.

Hotel: The Zoning Ordinance does not provide a parking ratio specific to hotel uses, but rather requires a parking study to determine the appropriate rate for each individual project. The applicant's parking study, dated November 29, 2016, concluded an applied parking ratio of 0.88 parking stalls per room would adequately serve both the hotel guests and employees (PC Attachment 4).

To determine an appropriate parking ratio, the parking study used a combination of surveys of comparable hotels, information provided by the applicant for typical operations, as well as localized information related to access to transit opportunities in the area. The parking study used a comparison hotel, the Irvine Spectrum Marriott Hotel at 7955 Spectrum Center Drive, which is similar in size and amenities provided. The parking study approved for that hotel set a rate of 0.88 parking stalls per room. Based upon the parking study and the factors outlined above, staff believes the proposed parking ratio of 0.88 parking stalls per room will adequately address the anticipated parking demand by both hotel guests and employees for the project.

A total of 349 full-size stalls and seven accessible stalls are reserved for the hotel use on-site, in compliance with the parking study completed. The parking rate discussed above nets a parking requirement of 340 spaces. Therefore, there will be a surplus of 16 parking stalls provided for the hotel use. Additionally, as the parking for this use will be valet-controlled, the stacking of cars can take place allowing for parking management practices that increase the parking capacity and efficiency when compared to self-parking arrangements.

Building Height Review - Airport Land Use Commission

In January and March 2017, in accordance with Irvine Zoning Ordinance requirements for building height in the IBC, the Federal Aviation Administration (FAA) issued Determinations of No Hazard to Air Navigation for the proposed 253-foot high office and 204-foot high hotel buildings on the project site. These determinations state that the "proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation."

As discussed above, at its meeting on April 20, 2017, the ALUC did not concur with the FAA Determinations of No Hazard issued for the project and, instead, voted unanimously to find that the proposed project is inconsistent with the AELUP. Specifically, the ALUC requested the building height for the hotel be reduced by 47 feet and the office by 95 feet, to a maximum of 206 feet above mean sea level, as that airspace is reserved for air navigation. This request would require significant redesign of the proposed project.

Because such a determination was made, per the AELUP, the applicant has the option to either 1) revise the project and return for a new decision, or 2) request the City Council override the ALUC decision during a public hearing and make specific findings that the proposed override is consistent with Section 21676 of the Public Utilities Code. The applicant has decided not to redesign the project and has requested City Council consideration of an override.

Pursuant to state law, the City is required to initiate the ALUC override process in order to consider approval of the proposed project. The override process requires a 45-day advance notice to the ALUC of the City's intent to override its determination. Notice of the intent to consider an override was provided to ALUC on May 25, 2017.

A two-thirds vote of the City Council is required to overrule a decision of the ALUC, and this action must occur prior to a decision being made on the proposed project. As such, the Planning Commission may only approve the project, contingent upon a decision to override the inconsistency finding. If the Planning Commission supports the proposed project, the override request will be considered by the City Council at a future meeting.

PUBLIC OUTREACH

On May 24, 2017, a notice of the June 15, 2017 Planning Commission hearing was mailed to property owners and occupants within a 500-foot radius and was posted at the project site as well as the City's standard posting locations. Staff has not received any public comments, other than those from the ALUC discussed above, related to this application to date.

ENVIRONMENTAL REVIEW

Pursuant to Section 15164 of the California Environmental Quality Act (CEQA) Guidelines, an Addendum to the IBC Vision Plan and Mixed Use Overlay Zoning Code Environmental Impact Report (EIR) (SCH No. 2007011024) for The Landmark project was completed in June 2017. This new addendum considers potential project impacts of the project in the areas of aesthetics, biological resources, air quality, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, noise, public services, transportation/traffic and utilities (PC Attachment 5).

The June 2017 Addendum concludes that the project will not result in any new significant impacts that were not previously addressed in the IBC EIR. All previous mitigation measures, project design features, and programs, policies and procedures, as applicable, continue to apply to the proposed project and are included as conditions of approval in the resolution for this project. No new mitigation measures are required. This Addendum to the IBC EIR adequately serves as the environmental document for the proposed project and satisfies all requirements of CEQA.

ALTERNATIVES CONSIDERED

The Planning Commission could choose to recommend denial of the Commercial Master Plan or it could recommend project modifications. Staff does not recommend these alternatives as the project complies with the Irvine Zoning Ordinance and, as evidenced by the EIR Addendum, is consistent with the project evaluated in the IBC EIR.

FINANCIAL IMPACT

Information received from the City's Budget Office estimates that the proposed hotel would generate approximately \$632,000 in transient occupancy taxes (TOT) and \$158,000 in Hotel Improvement District taxes for the first year of operation. For subsequent years, TOT is estimated to be \$1.3 million and the Hotel Improvement District tax is estimated to be \$316,000 annually. These calculations are based upon the opening year for the hotel, the type of hotel constructed, as well as market saturation. Hotel guests whose stay does not exceed 30 consecutive days will pay TOT, consistent with the City's Municipal Code.

REPORT PREPARED BY: Stephanie Frady, Senior Planner

REVIEWED BY: Tim Gehrich, Deputy Director of Community Development
Joel Belding, Principal Planner

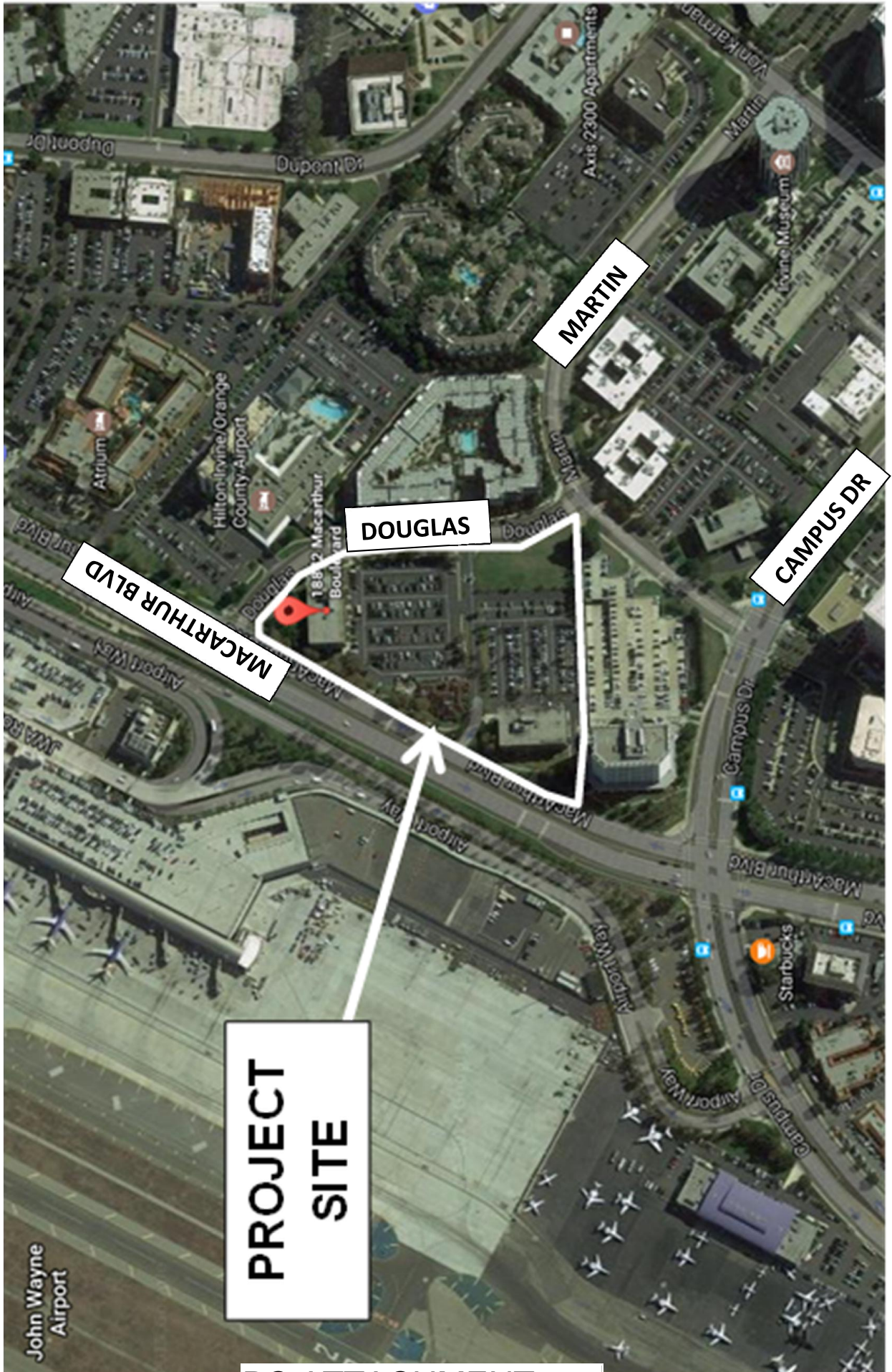
ATTACHMENTS

PC Attachment 1: Vicinity Map
PC Attachment 2: Planning Commission Information Sheet
PC Attachment 3: Master Plan Set
PC Attachment 4: Hotel Parking Study dated November 2016
PC Attachment 5: Addendum to IBC EIR
PC Attachment 6: Planning Commission Resolution No. 17-3615 Approving
Commercial Master Plan 00659728-PMPC

cc: Sean Cao, Great Far East (via email: sean.cao@greatfareast.com)
Hope Fazio, Great Far East (via email: hope.fazio@greatfareast.com)
Tim Strader, Starpointe Ventures (via email: tj@starpointeventures.com)
Jay Ruby, Urban Resource (via email: jay@urbanresource.com)
Mark Mispagel (via email: mark@mispagellaw.com)
Kari Rigoni, Airport Land Use Commission (via email: KRigoni@ocair.com)
Lea Choum, John Wayne Airport (via email: LChoum@ocair.com)
Joel Belding, Principal Planner

File: 00659728-PMPC

VICINITY MAP – 18872, 18912 AND 18952 MACARTHUR BOULEVARD



PLANNING COMMISSION INFORMATION SHEET
THE LANDMARK COMMERCIAL MIXED USE PROJECT

Meeting Date: June 15, 2017

Applicant: Great Far East LLC

Staff Recommends: The Planning Commission approve a Commercial Master Plan for The Landmark, a commercial mixed use project which includes a 15-story, 386-room hotel, a 15-story office tower and ground level retail/restaurant space.

Legal Description: Lot 3: (2.293 acres) APN 445-012-01

Lot 3 of Tract 8299, in the City of Irvine, County of Orange, State of California as shown on a map recorded in Book 340, Pages 44 to 47 inclusive of miscellaneous maps, in the office of the County Recorder of said county

Lot 4: (1.345 acres) APN 445-012-02

Lot 4 of Tract 8299, in the City of Irvine, County of Orange, State of California as shown on a map recorded in Book 340, Pages 44 to 47 inclusive of miscellaneous maps, in the office of the County Recorder of said county

Lot 5: (2.312 acres) APN 445-012-03

Lot 5 of Tract 8299, in the City of Irvine, County of Orange, State of California as shown on a map recorded in Book 340, Pages 44 to 47 inclusive of miscellaneous maps, in the office of the County Recorder of said county

Parcel 2: (1.082 acres) APN 445-012-06

Parcel 2 of Parcel Map 80-617, in the City of Irvine, County of Orange, State of California as shown on a map recorded in Book 154, Page 31 of parcel maps, in the office of the County Recorder of said county

Site Size: 7.0329 acres

Location: 18872, 18912 and 18952 MacArthur Boulevard

Topography: Generally flat

General Plan: Urban and Industrial

Existing Zoning: 5.1 IBC Multi-use

Existing Land Use: Two existing four-story office buildings and a free-standing restaurant building with surface parking and landscaping.

Adjacent Zoning / Land Uses

	<u>Zoning Designation</u>	<u>Land Use</u>
North:	5.1 IBC Multi-use	Douglas (a street), Hilton Irvine/Orange County Airport Hotel (18800 MacArthur Blvd.)
East:	5.3A IBC Residential	Douglas, Carlyle Apartments (18880 MacArthur Blvd.)
West:	n/a	MacArthur Blvd., John Wayne Airport
South:	5.1 IBC Multi-use	Campus-MacArthur Court Office Park (19000 MacArthur Blvd.), Campus Drive/Irvine Avenue, City of Newport Beach

Development Standards

	<u>Required/Allowed</u>	<u>Provided</u>
Minimum Site Size:	30,000 sq. ft.	306,352 sq. ft.
Maximum Site Coverage:	65%	54.8% (including parking structure)
Maximum Building Height:	FAA standard	No Hazard Determination from FAA issued
Hotel:		204 feet
Office:		253 feet
Minimum Landscape Coverage:	15%	23%
Minimum Setbacks		
MacArthur:	40 feet	40 feet
Douglas:	40 feet	40 feet
Side:	10 feet	10 feet from southern property line
Parking:		
Hotel:	340 stalls* (0.88 per room)	356 stalls (0.88 per room)
Office:	1,397 stalls	1,548 stalls
Retail/Restaurant:	183 stalls	185 stalls
TOTAL:	1,920 stalls	2,089 stalls

* Per Section 4-3-4(21) of the Irvine Zoning Ordinance, the hotel rate shall be established by a parking study. A parking study for the proposed project was completed by LSA Associates, Inc. on November 29, 2016.

THE LANDMARK
IRVINE, CALIFORNIA
GREAT FAR EAST



MASTER PLAN APPLICATION
CASE # 00659728-PMPC
JANUARY 27, 2017

PROJECT SUMMARY

THIS PROJECT IS COMPRISED OF A 15-STORY HOTEL, A 15-STORY OFFICE TOWER AND A FREESTANDING RETAIL BUILDING WHICH IS EXPECTED TO PROVIDE COFFEE/FOOD SERVICE TO HOTEL AND OFFICE PERSONNEL AND GUESTS. PARKING FOR THE PROJECT IS PROVIDED ON TWO SUBTERRANEAN PARKING LEVELS AND A 5-LEVEL ABOVE GRADE PARKING STRUCTURE LOCATED ADJACENT TO THE OFFICE TOWER. THE HOTEL IS COMPRISED OF 386 GUEST ROOMS, RESTAURANT, BAR/LOUNGE, MEETING ROOMS, POOL/SPA DECK AND GUEST FITNESS CENTER.

TABULATIONS FOR PARKING AND BUILDING AREAS ARE LOCATED ON SHEET MP-101.

Table A: 18912, 18952, and 18872 MacArthur Boulevard IBC DIV Summary

Land Use	Size	Unit	Daily	AM Peak Hour	PM Peak Hour
DIV Rates ¹					
Retail		sf	0.08400	0.00254	0.00696
Office (Zoning Potential)		sf	0.01277	0.00130	0.00158
Industrial		sf	0.00362	0.00045	0.00042
Hotel		room	10.00000	0.42000	0.68000
Existing DIV Budget					
18912 MacArthur Boulevard (IBC Project No. 401)					
Retail	9,821	sf	825	25	68
18952 MacArthur Boulevard (IBC Project No. 402)					
Office	47,118	sf	649	61	65
18872 MacArthur Boulevard (IBC Project No. 426)					
Office (Existing)	49,104	sf	676.16	63.84	67.76
Office (Approved Demo)	(49,104)	sf	(676.16)	(63.84)	(67.76)
Retail (Discretionary Approval)	21,000	sf	1,764.00	53.34	146.16
Industrial (Discretionary Approval)	15,000	sf	69.30	6.75	6.30
Office (Discretionary Approval)	750,231	sf	10,330.68	975.30	1,035.32
DIV Conversion Factor			0	1	0
Total			12,164	1,036	1,188
Total			13,638	1,122	1,321
Project DIV Generation					
Office	448,200	sf	6,171.71	582.66	618.52
Retail	13,665	sf	1,147.02	34.68	95.04
Hotel	386	room	3,860.00	162.12	262.48
Total			11,179	779	978
Difference (Existing DIV Budget - Project DIV Generation)			2,459	343	345
Remaining Entitlement (Office Equivalency)			178,577	263,846	250,000

¹ DIV rates obtained from the IBC Database Summary.

sf = square feet

TDR = transfer of development rights

SHEET INDEX

GENERAL

CS-000 COVER SHEET

SITE / CIVIL / LANDSCAPE DRAWINGS

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MP-011 TYPICAL SECTIONS
MP-012 TECHNICAL SITE PLAN
MP-013 SITE ACCESS PLAN

MP-020 CONCEPTUAL LANDSCAPE PLAN - LEVEL ONE
MP-021 CONCEPTUAL LANDSCAPE PLAN - LEVEL TWO
MP-022 CONCEPTUAL LANDSCAPE PLAN - LEVEL THREE
MP-023 CONCEPTUAL LANDSCAPE ELEVATIONS

MP-030 WASTE MANAGEMENT PLAN

MP-040 FIRE MASTER PLAN SHEET 1
MP-041 FIRE MASTER PLAN SHEET 2

ARCHITECTURAL DRAWINGS

MP-100 SITE PLAN
MP-101 HOTEL, OFFICE, PARKING GROUND LEVEL FLOOR PLAN
MP-102 HOTEL, OFFICE SECOND LEVEL FLOOR PLAN - PARKING LEVELS 2-4
MP-103 HOTEL, OFFICE THIRD LEVEL FLOOR PLAN - PARKING LEVEL 5
MP-104 HOTEL, OFFICE TYPICAL LEVEL FLOOR PLAN
MP-105 PENTHOUSE FLOOR PLANS
MP-106 PARKING BASEMENT 1 LEVEL PLAN
MP-107 PARKING BASEMENT 2 LEVEL PLAN
MP-120 BUILDING ELEVATIONS
MP-121 BUILDING ELEVATIONS
MP-122 SITE SECTION
MP-130 PERSPECTIVE VIEWS
MP-131 PERSPECTIVE VIEWS

THE LANDMARK
IRVINE, CA



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No. Date Revision

00 01/08/16 INITIAL SUBMISSION
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03 12/01/16 SUBMISSION No. 4
04 01/27/17 SUBMISSION No. 5

MASTER PLAN SUBMITTAL

Case # : 00659728-PMPC

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SCALE PROJECT NO.

PCF-1514

DATE REV.

5/12/16

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Case #: 00659728-PMPC

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EXISTING
CONDITIONS
SITE PLAN

DRAWN CHECKED

SCALE PROJECT NO.

DATE REV.

DRAWING NO.

MP-010

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Architects LLP

EXISTING EASEMENTS

- (A) EASEMENT FOR PUBLIC UTILITIES PURPOSES GRANTED TO SOUTHERN CALIFORNIA EDISON COMPANY PER BOOK 11256, PAGE 1440, OFFICIAL RECORDS. (TO BE QUITCLAIMED)
- (B) EASEMENT FOR PUBLIC UTILITIES PURPOSES IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY PER BOOK 11312, PAGE 210, OFFICIAL RECORDS (TO BE QUITCLAIMED)
- (C) EASEMENT FOR PUBLIC UTILITIES GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY PER BOOK 11193, PAGE 1250 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
- (D) EASEMENT FOR PIPELINES PURPOSES GRANTED TO SOUTHERN CALIFORNIA GAS COMPANY PER BOOK 11126, PAGE 1699 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
- (E) PERPETUAL AIR OR FLIGHT EASEMENT ALSO REFERRED TO AS "AVIGATION RIGHTS, PER BOOK 6965, PAGE 721 OF OFFICIAL RECORDS. (TO REMAIN)
- (F) DRAINAGE ACCEPTANCE AGREEMENT (TO BE QUITCLAIMED)

LOT 1
TRACT 82
APN 445-0
18800 MAC
18800 MAC

LOT 1
TRACT 167
APN 445-0
CARLYLE
NEW PAC



GRAPHIC SCALE



(IN FEET)

1 inch = 40 feet

LEGEND

PROPOSED TRACT BOUNDARY	EXISTING FIRE HYDRANT
EXISTING RIGHT-OF-WAY	PROPOSED FIRE HYDRANT
EXISTING LOT LINE	PROPOSED CATCH BASIN
EXISTING CENTERLINE	PROPOSED MANHOLE
EXISTING EASEMENT	PUBLIC STREET RIGHT OF WAY DEDICATION
EXISTING DOMESTIC WATER	PROTECT IN PLACE
EXISTING STORM DRAIN	TO BE REMOVED
EXISTING SEWER	EXISTING STREET LIGHT
PROPOSED DOMESTIC WATER	PROPOSED STREET LIGHT
PROPOSED STORM DRAIN	
PROPOSED SEWER	

EXISTING CONDITIONS SITE PLAN

SCALE: 1" = 40'



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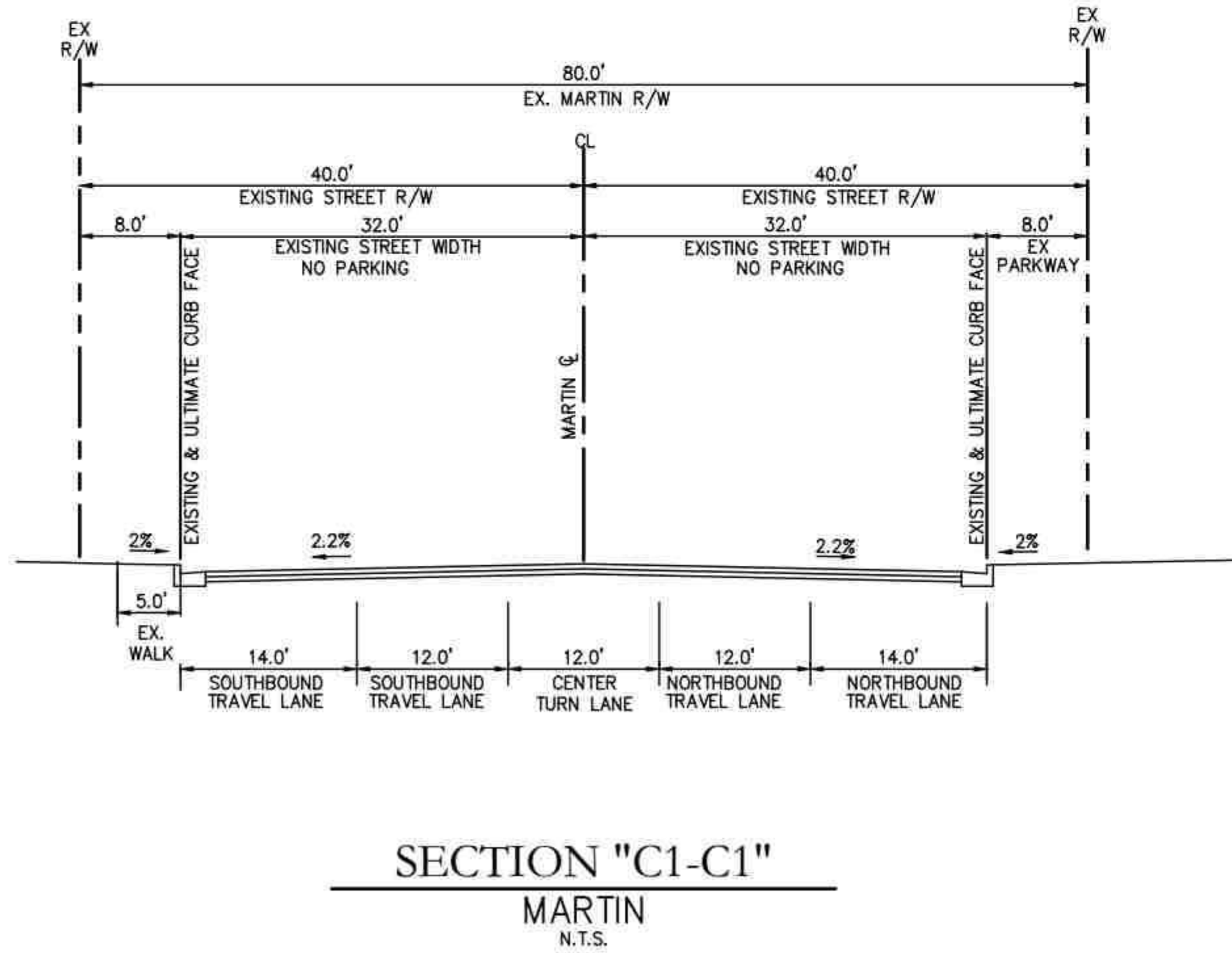
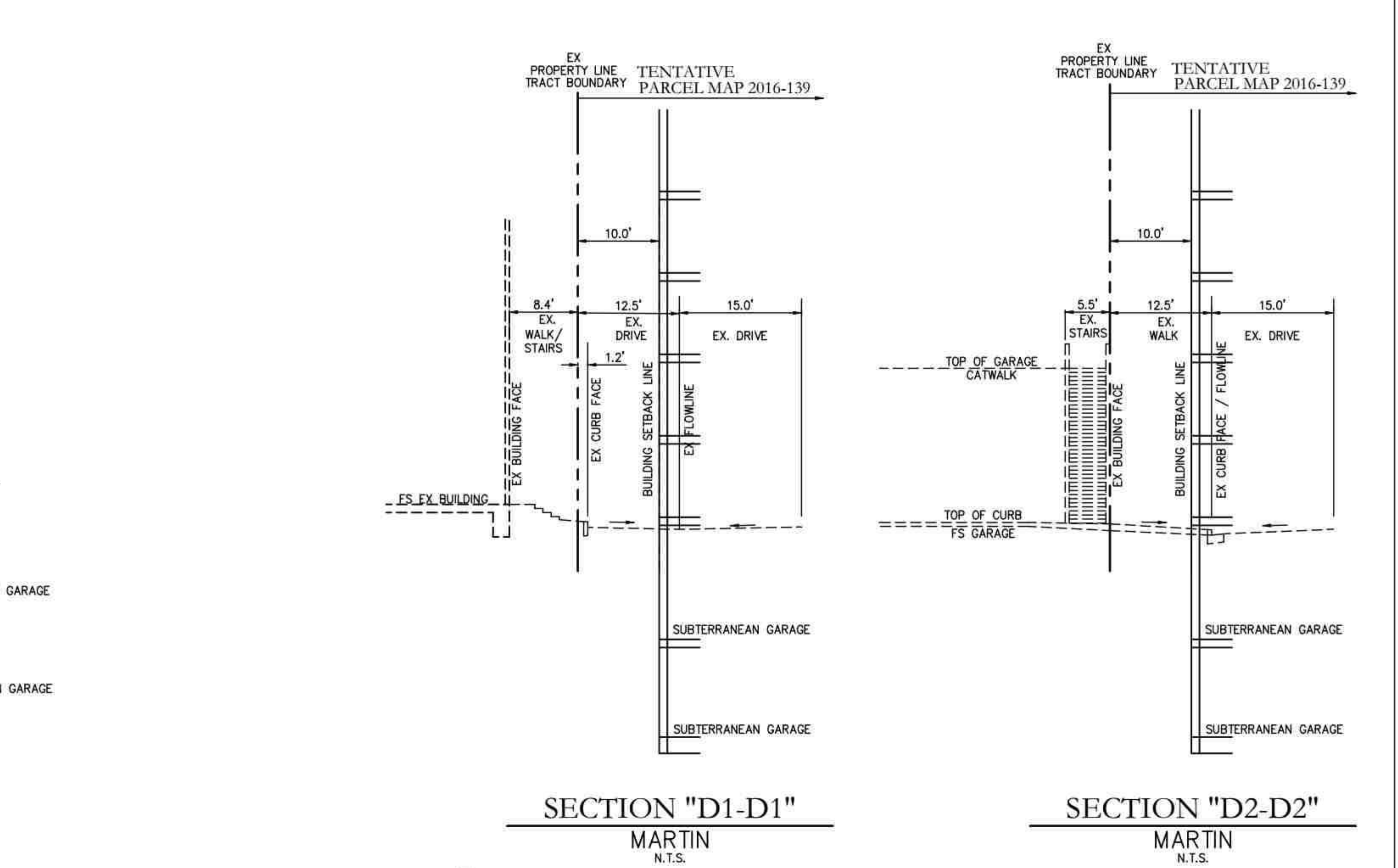
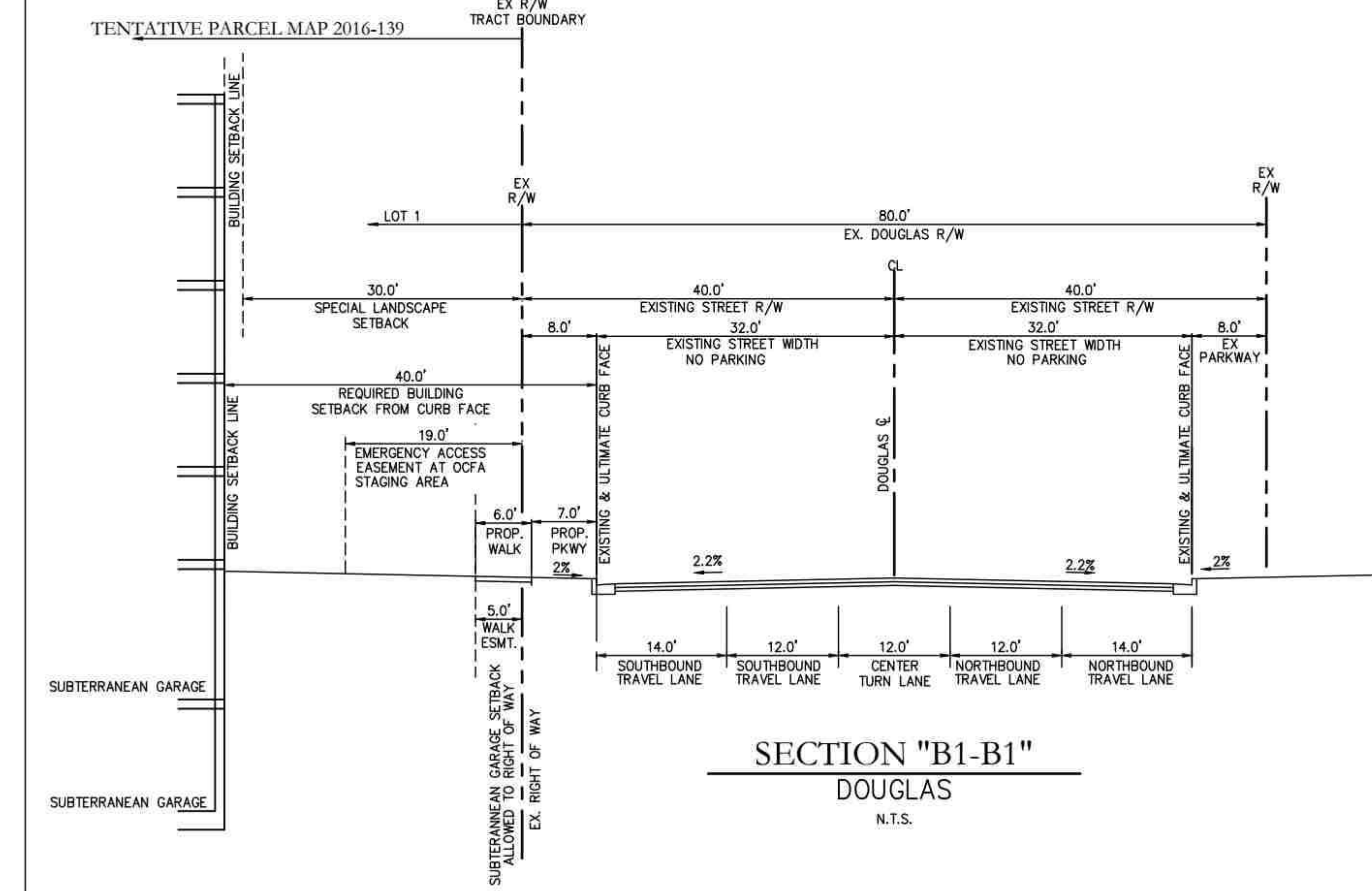
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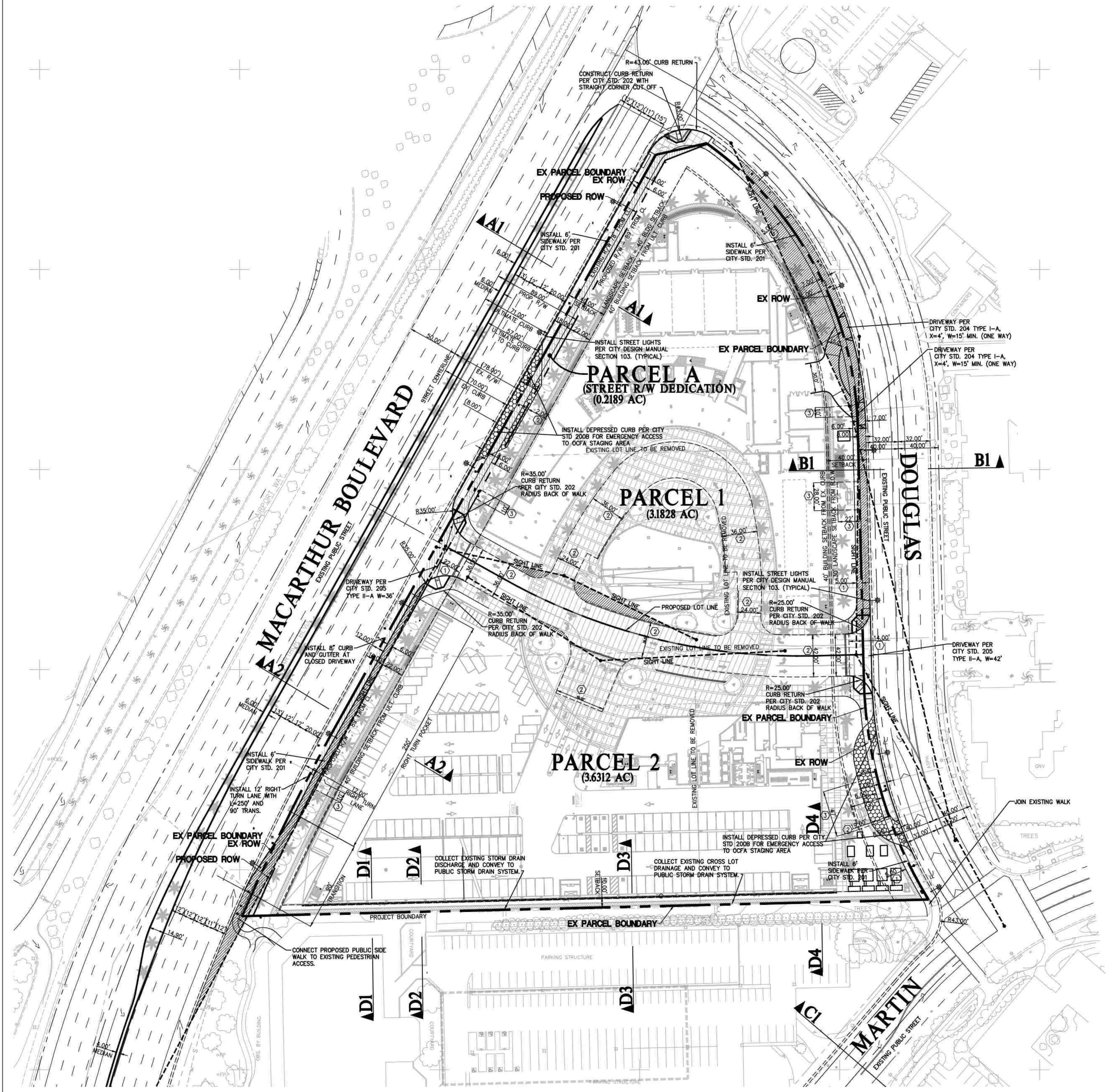
TYPICAL SECTIONS

SCALE PROJECT NO.

DRAWING NO.

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Architects LLP





TECHNICAL SITE PLAN
SCALE: 1" = 40'

EXISTING EASEMENTS

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- (F) DRAINAGE ACCEPTANCE AGREEMENT (TO BE QUITCLAIMED)

PROPOSED EASEMENTS / DEDICATIONS

- (1) EASEMENT FOR PUBLIC SIDEWALK, MAINTENANCE AND ACCESS PURPOSES DEDICATED TO THE CITY OF IRVINE AS SHOWN HEREON.
- (2) EASEMENT FOR VEHICULAR AND PEDESTRIAN ACCESS AND EMERGENCY ACCESS DEDICATED TO THE CITY OF IRVINE AS SHOWN HEREON.



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MASTER PLAN SUBMITTAL
Case #: 00659728-PMPC
JANUARY 27, 2017

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TECHNICAL
SITE PLAN

DRAWN
12/1/16

SCALE
PROJECT NO.

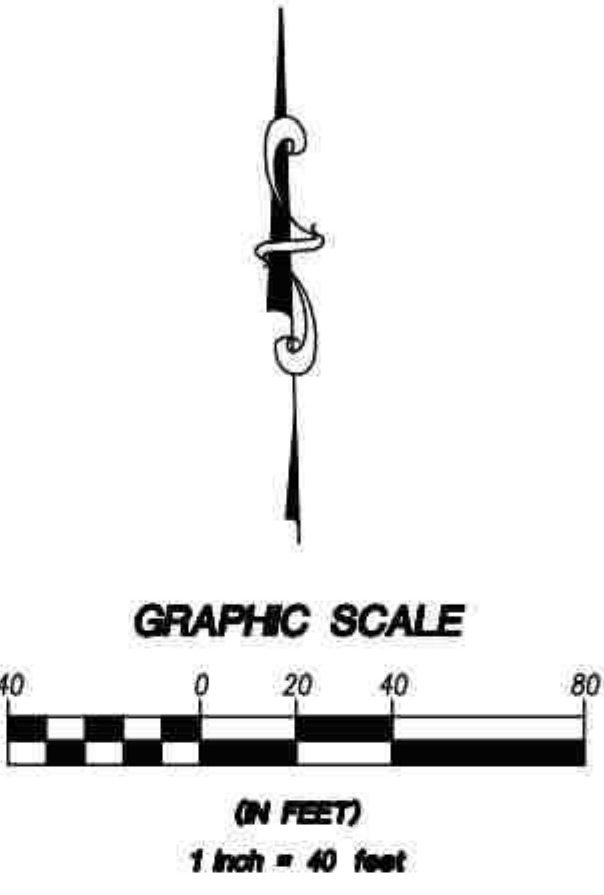
DATE
REV.

DRAWING NO.
MP-012

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Architects LLP

LEGEND

- PROPOSED TRACT BOUNDARY
- EXISTING RIGHT-OF-WAY
- EXISTING LOT LINE
- EXISTING CENTERLINE
- EXISTING EASEMENT
- EXISTING DOMESTIC WATER
- EXISTING STORM DRAIN
- EXISTING SEWER
- PROPOSED DOMESTIC WATER
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- PROPOSED SEWER
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- PROPOSED FIRE HYDRANT
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PUBLIC STREET RIGHT OF WAY DEDICATION
- PIP
- TBR
- PROTECT IN PLACE
- TO BE REMOVED
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT
- SIGHT DISTANCE LIMITED USE AREA PER CITY STANDARD NO. 403



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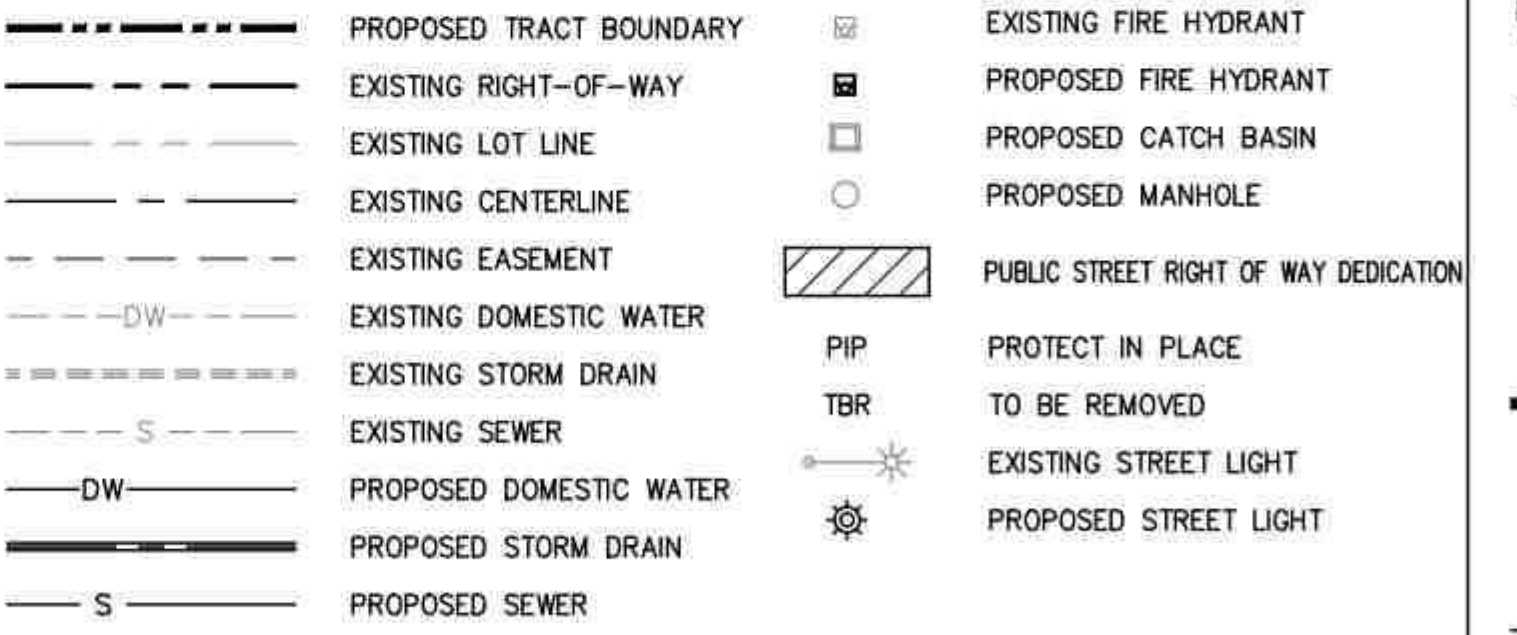
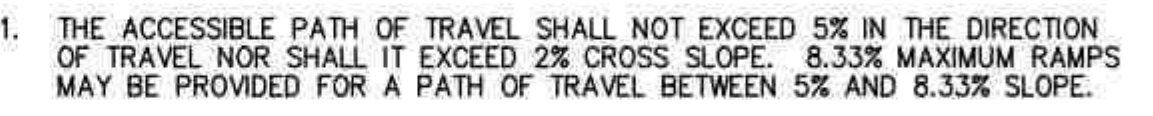
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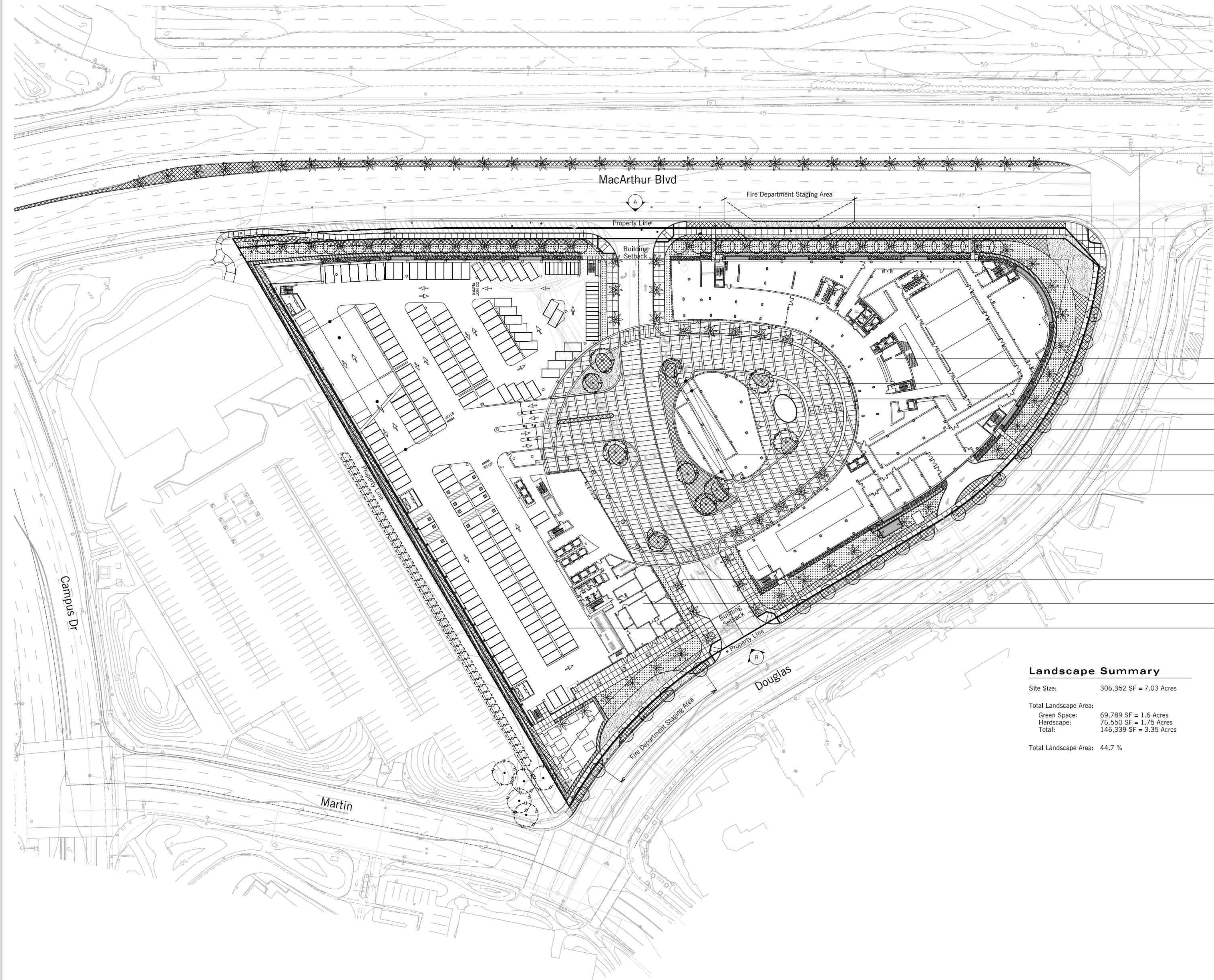
MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

SITE ACCESS PLAN

MP-013

PEI COBB FREED & PARTNERS
Architects LLP





- Proposed Hotel Tower and Retail Buildings
- Enhanced Paving in Project Core
- Courtyard Water Feature
- Parking Structure Area Way (typ.)
- Reduced Height Screen Hedge within Limited Use Zone (30' maximum height for shaded portion)
- Courtyard Retail / Garage Access Building
- Service Access
- Proposed Street Tree (typ.)

- Vehicular Lay-By
- Proposed Office Tower
- Proposed Parking Structure

Landscape Summary

Site Size:	306,352 SF = 7.03 Acres
Total Landscape Area:	
Green Space:	69,789 SF = 1.6 Acres
Hardscape:	76,550 SF = 1.75 Acres
Total:	146,339 SF = 3.35 Acres
Total Landscape Area:	44.7 %

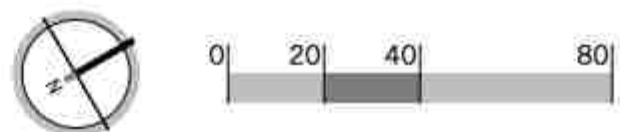
Plant Legend

Trees

Symbol	Description
	Afrocarpus gracillor
	Interior Canopy Tree
	Washingtonia robusta Palm Tree
	Existing Pine Tree Grove (Off-site)
	Existing Poplar Trees (Off-site)

Shrubs

Symbol	Description
	Ground Cover Planting
	Ornamental Planting
	Screen Hedge
	Lawn or Low Ground Cover
	Decorative Gravel Maintenance Path



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02	01/27/17	SUBMISSION No. 3

MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
DECEMBER 1, 2016

STAMP

DRAWING TITLE

CONCEPTUAL
LANDSCAPE PLAN -
LEVEL ONE

DRAWN CHECKED

SCALE PROJECT NO.
1" = 40' PCF-1514
DATE REV.
01/27/17

DRAWING NO.

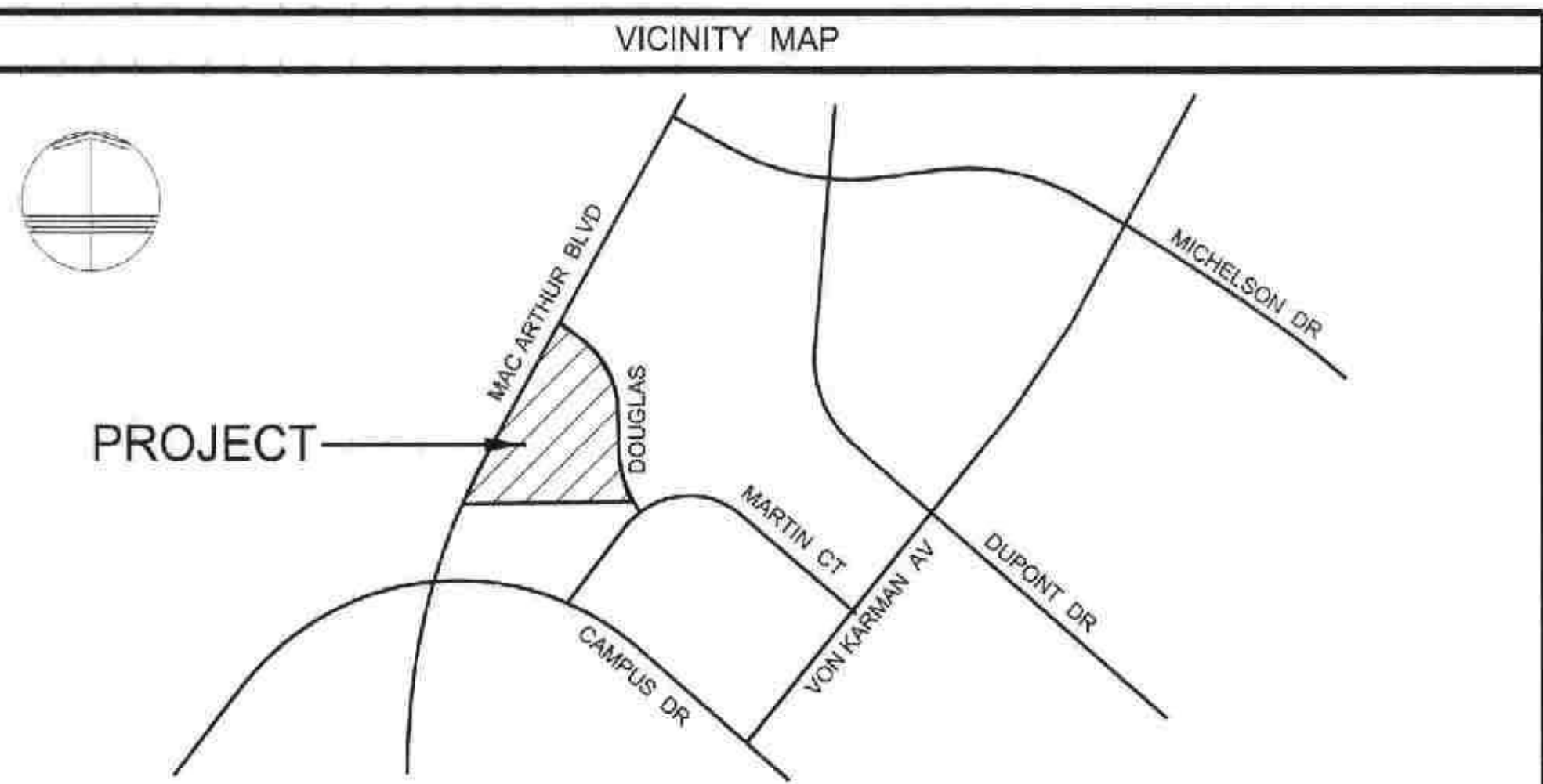
MP-020

OCFA CITY MASTER PLAN

FOR CONDITION OF APPROVAL

THE LANDMARK

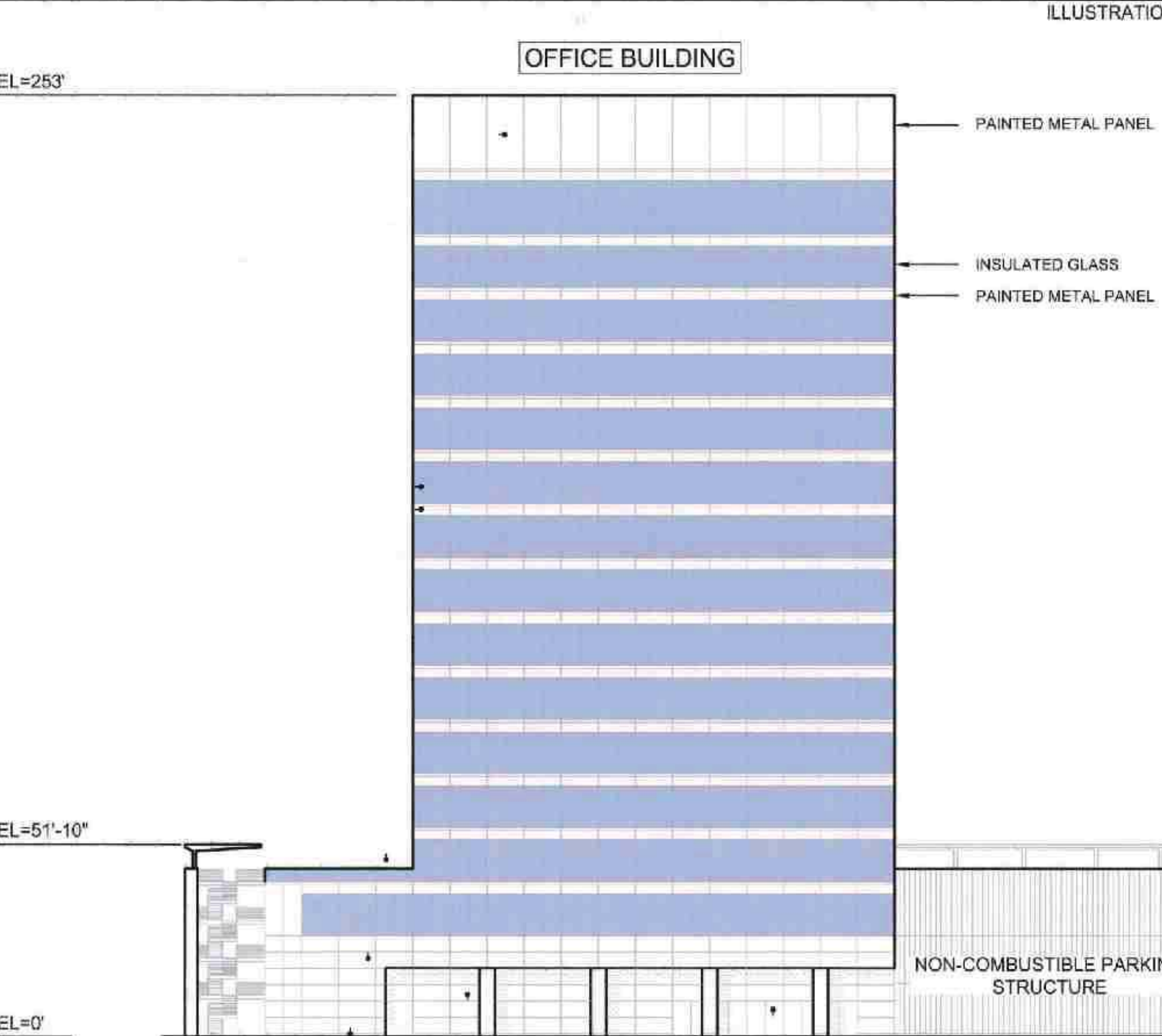
TENTATIVE TRACT NO. 2016-139
CITY OF IRVINE



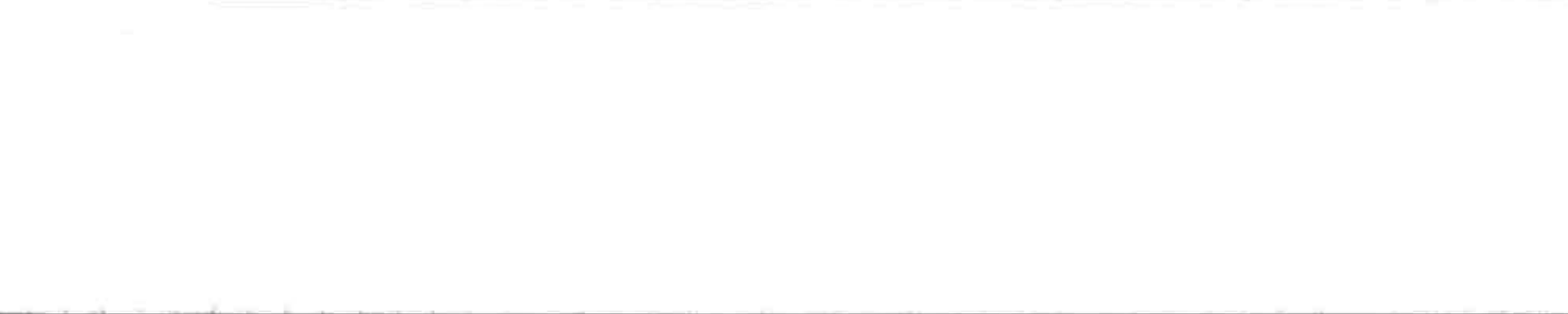
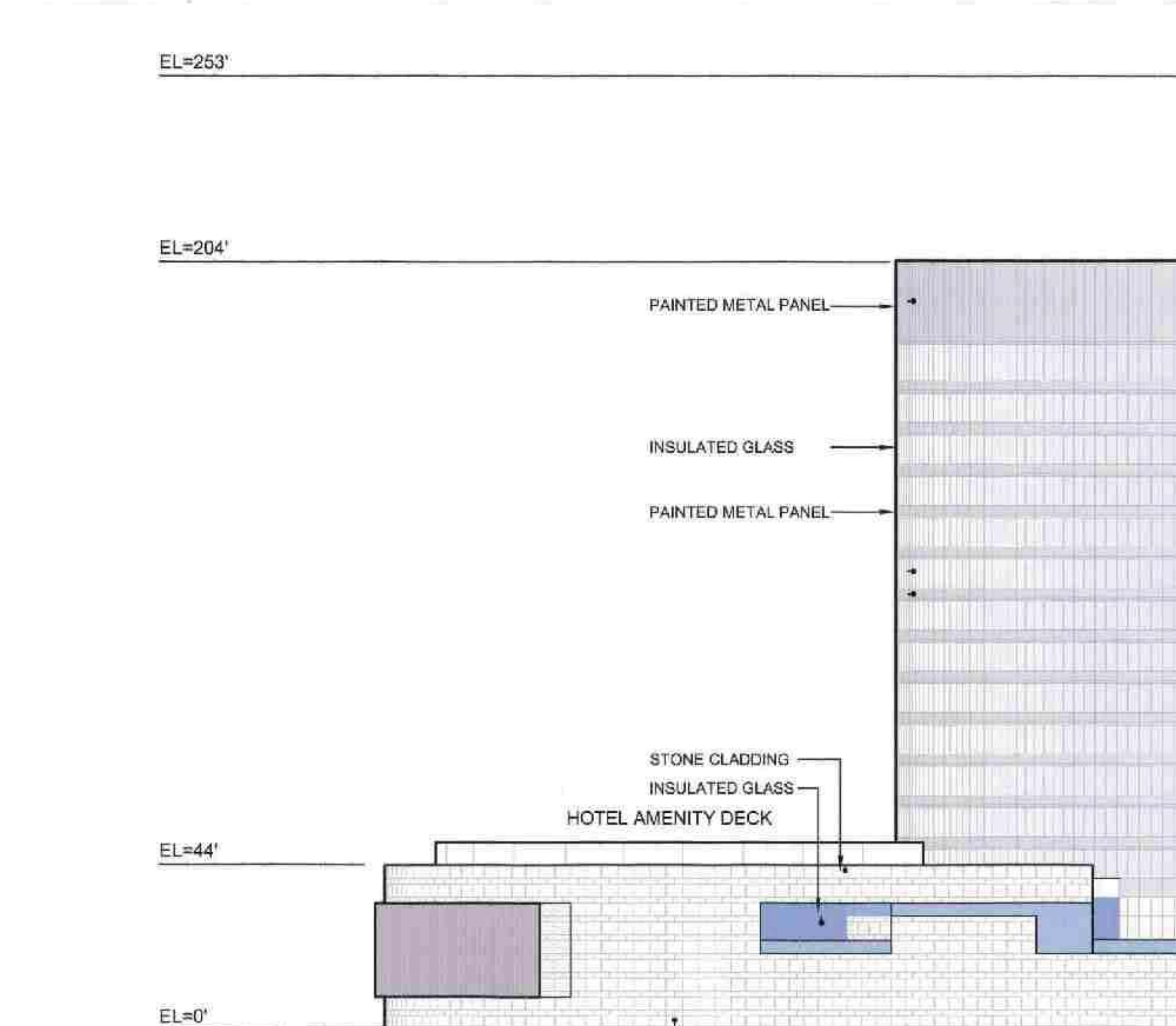
BUILDING DATA		
BUILDING (TYPE 1A)	SQUARE FOOTAGE	MATERIALS
BASEMENT PARKING LEVEL:	481,000 SF	CAST IN PLACE CONCRETE
PARKING GARAGE:	432,800 SF	PRECAST CONCRETE (LIKELY)
OFFICE TOWER:	448,200 SF	STRUCTURAL STEEL WITH UNITIZED CURTAIN WALL ENCLOSURE
HOTEL BUILDING:	323,415 SF	CAST IN PLACE CONCRETE WITH STONE CLADDING AND GLASS STOREFRONT
RETAIL BUILDING:	13,655 SF	STRUCTURE TBD, GLASS ENCLOSURE

A FIRE COMMAND CENTER SHALL BE CONSTRUCTED WITHIN THE HOTEL AND OFFICE TOWER. IT SHALL BE A MINIMUM OF 200 S.F. WITH MINIMUM DIMENSIONS OF 10 FEET WITH AN EXTERIOR ACCESS DOOR. THEY SHALL CONTAIN EQUIPMENT AS STATED IN OCFA GUIDELINE H-01.

VIEW FROM DOUGLAS FACING NORTH



VIEW FROM MAC ARTHUR BOULEVARD FACING SOUTH



OCFA ALTERNATE MATERIALS & METHODS LETTER

January 16, 2017

Planning and Development Services Section
Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92656-0066

SUBJECT: The Landmark, Irvine, CA
Alternate Materials and Methods for OCFA City Master Plan for Condition of Approval

PROJECT DESCRIPTION:
The project site is a parcel bounded by an office building on the west, MacArthur Boulevard, Douglas to the south. The development is a 15-story hotel building, both on a parking structure from basement thru second floor. The hotel site contains retail units at ground floor with amenities on the fourth floor. The project falls under OCFA 'Highrise' requirements.

A portion of the fire access route bridges over parking garage as shown on site plan, sheet 2 of this package. This access will be designed and constructed per requirements shown in OCFA Guideline B-06 under 'Bridges' paragraph. The project structural engineer will certify the construction will support a full assignment.

On behalf of The Landmark, we hereby submit a request for use of Alternate Materials and Methods (AM&M), per the 2013 California Fire Code. Our request relates to the 75' hose pull deficiency around the back of the 3-floor above grade non-combustible parking garage.

The following information is being provided to assist in your evaluation of this proposed AM&M.

A. Project Information:
Development type: Hotel/Office Development

B. Code Sections for which the modification is requested:
CFC Section 104.9: Alternate Means and Methods
CFC Section 503.1.1: Fire lanes shall be provided within 150' of every portion of the perimeter of the building as measured along an approved route.
CFC Section 503.1.1, 503.2.2: Fire Lane setback

C. Hardship:
Our hardship is: Due to the site usage, there is a hose pull deficiency of 38' from each access point for a total of 75' at the back of the non-combustible parking structure. The structure will not have amenities. OCFA Guideline B-09 notes the hose pull reach may be extended to 300 feet for open parking garages if certain criteria are met. This structure meets all of those listed with the exception of one of the two stairway door locations being 60' from a fire access roadway, 20' greater than noted.

D. Proposed alternative fire protection measures:
Wet stand pipes will be installed at all stairwells and along the rear of the non-combustible parking structure at the end of each 300' hose pull reach and at the mid-point. The standpipes will be tied into the building automatic fire sprinkler system.

The AM&M proposal and acceptance letter shall be copied onto the architectural, alarm, sprinkler, and standpipe plans submitted to the OCFA for review in addition to the architectural plans submitted to the OCFA. The architect/developer shall be responsible for rectifying any errors or omissions arising from failure to provide these documents on these submittals. It is our belief that the proposed alternate fire protection methods and modifications developed both enhance and protect the building and more importantly provide additional protection for fire personnel and the public.

Approval of this alternate methods and materials request is contingent upon acceptance of the design and installation of the fire walls and other construction features by the Building Department. This AM&M letter will be included on the architectural plans submitted to both the OCFA and City of Irvine as well as the sprinkler and alarm plans submitted to OCFA.

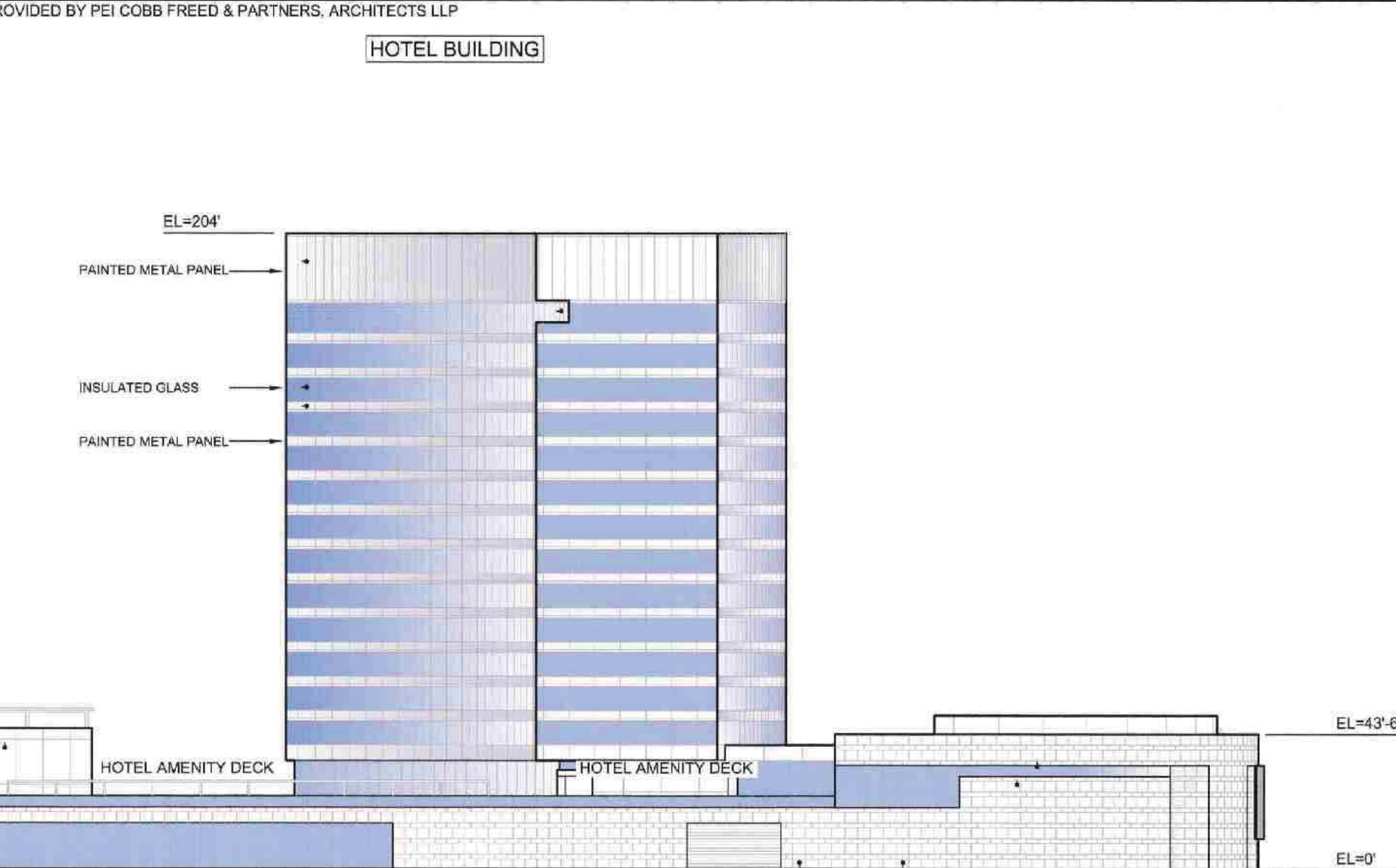
Accepted:

Fire Prevention Analyst: Valid Tazari, P.E. Fire Prevention
Orange County Fire Authority

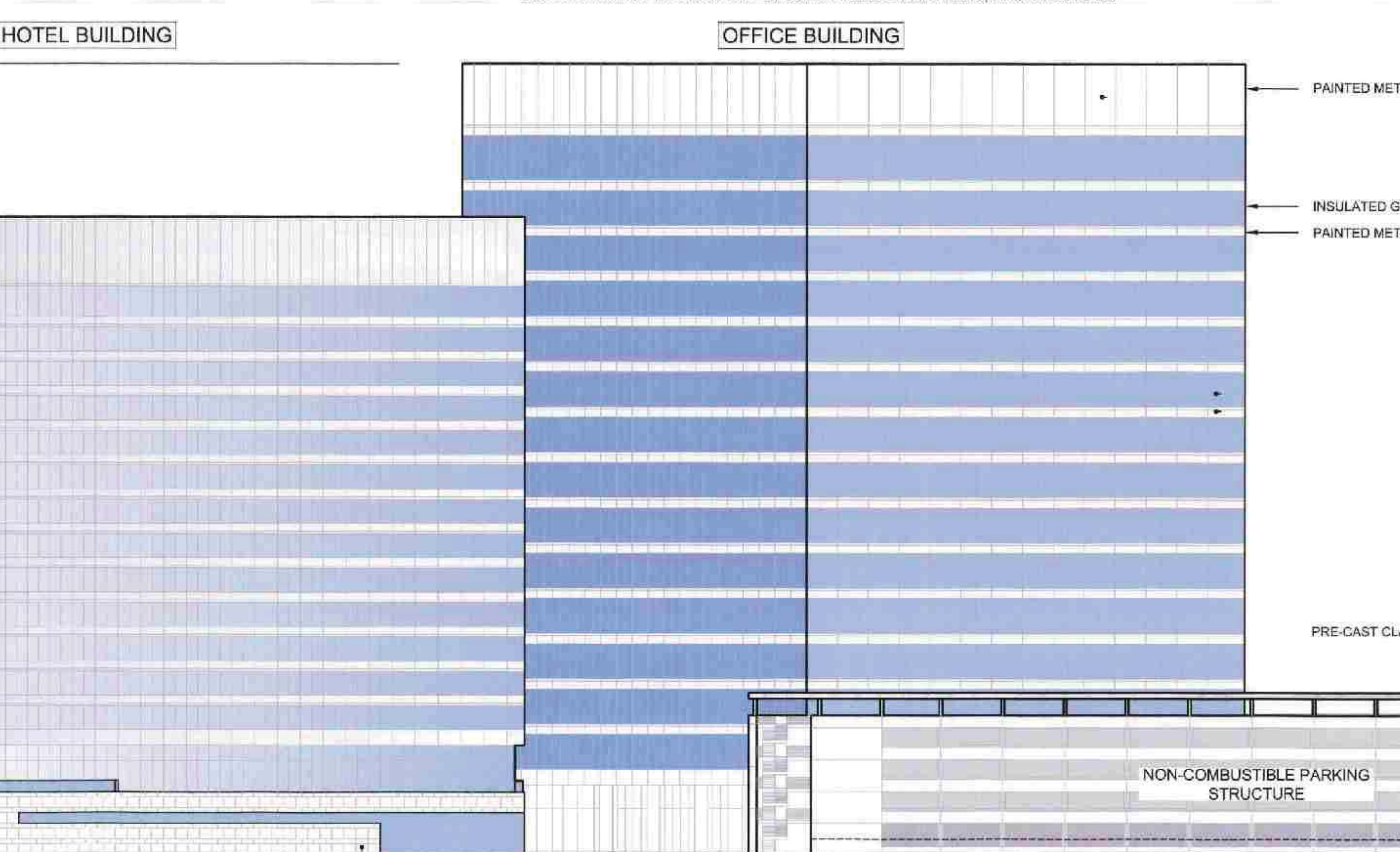
Valid Tazari, P.E. Fire Prevention
Orange County Fire Authority

NO ADDITIONAL CONDITIONS OF APPROVAL REQUIRED.
ADDITIONAL CONDITIONS OF APPROVAL APPLY. SEE ATTACHED LETTERS.

ILLUSTRATIONS PROVIDED BY PEI COBB FREED & PARTNERS, ARCHITECTS LLP



VIEW FROM MAC ARTHUR BOULEVARD FACING SOUTH



PARKING ENFORCEMENT LETTER

January 16, 2017

Planning and Development Services Section
Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92602-0125

Re: The Landmark, Irvine, CA
Parking Enforcement Plan

The fire lane parking enforcement plan for the above referenced project is stated as follows:

All fire lanes within project shall be maintained and in no event shall parking be permitted along any portion of a street or drive that required fire lanes or any area designated as a fire lane for turn-around or drive through purposes.

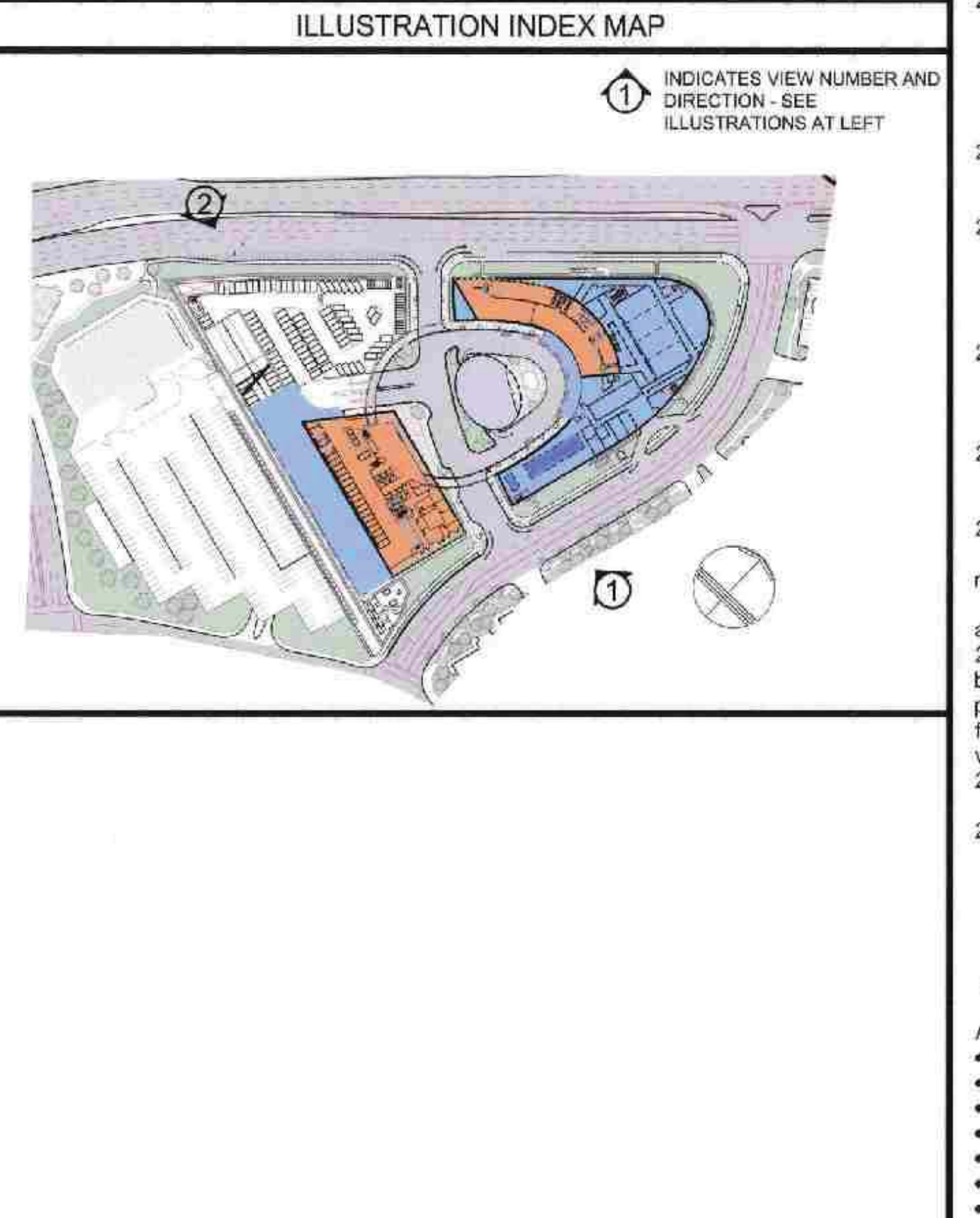
Site Management shall adopt reasonable rules and regulations regarding the parking of vehicles along the streets, roads and or drives within the project that are not in conflict with applicable law.

In furtherance thereof, Site Management, through its officers, committees and agents will establish the "parking" and "no parking" areas within the property in accordance with Section 22658.2 of the California Vehicle Code and OCFA Guideline B-09. The law shall be enforced through such rules and regulations by all lawful means, including, written warnings, citing, levying fines and towing vehicles in violation.

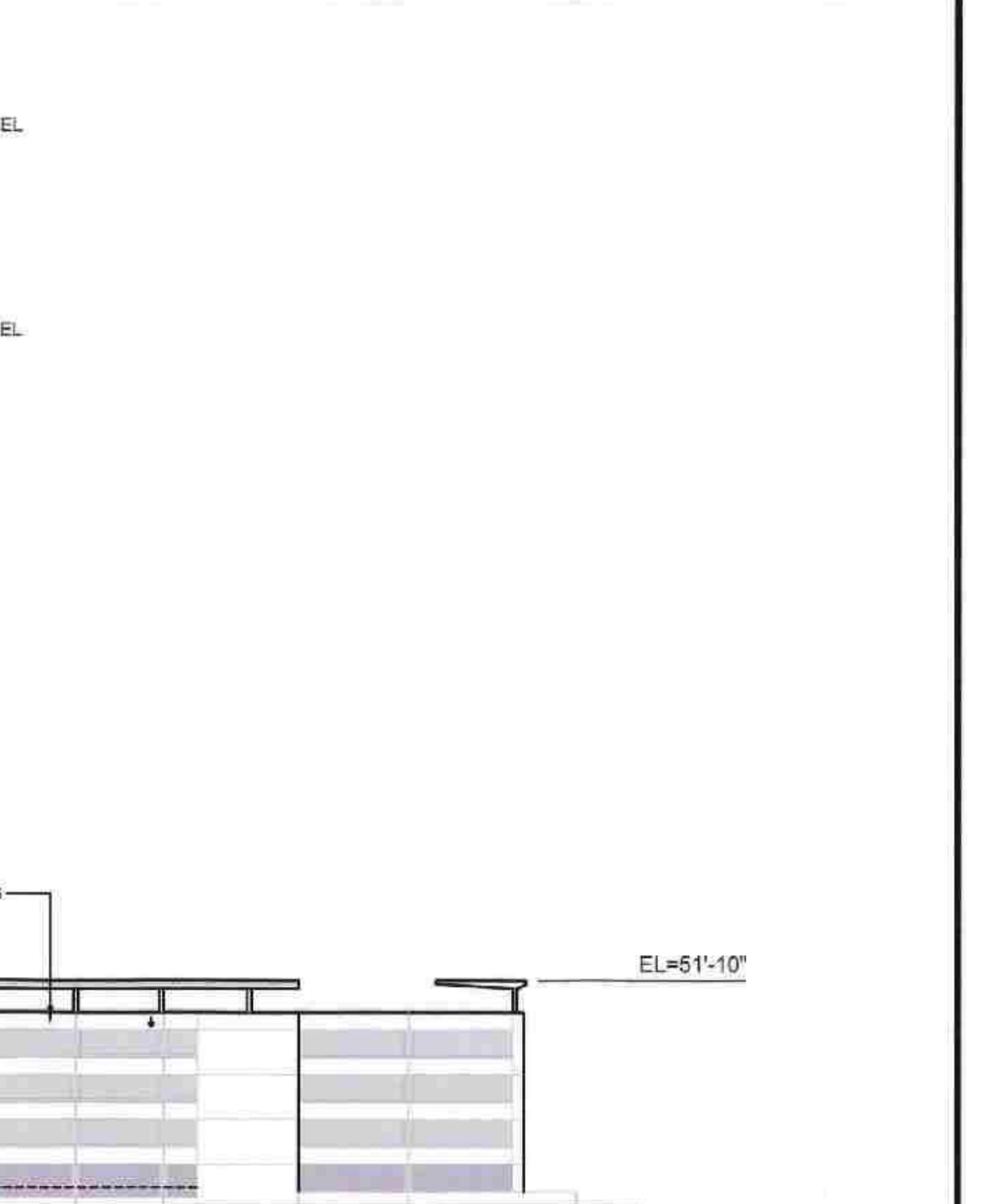
Site Management will contract with a certified patrol and towing company to remove vehicles that violate no parking restrictions. First time violators will receive a written warning and with subsequent violations, the vehicle shall be subject to towing. The vehicle owner shall be responsible for all costs incurred in remedying such violation, including without limitation towing cost, citations and legal fees.

The purpose of this letter is to notify you that The Landmark development shall install all required paved fire access roads that meet OCFA access requirements per the approved plans. All fire hydrants and water supply for firefighting purposes shall be installed per the approved plans and shall meet all fire flow requirements, prior to any combustible construction materials being delivered for construction.

ILLUSTRATION INDEX MAP



VIEW FROM MAC ARTHUR BOULEVARD FACING SOUTH



FIRE AUTHORITY NOTES

1. OCFA site inspections are required for this project. Please schedule all field inspections at least 48 hours in advance. Inspections cancelled after 1 p.m. on the day before the scheduled date will be subject to a re-inspection fee. Call OCFA Inspection Scheduling at (714) 573-6150.

2. A lumber drop inspection shall be performed prior to bringing combustible materials (or combustible fixtures and finishes for structures of non-combustible construction). All-weather access roads capable of supporting 68,000 lbs., topped with asphalt, concrete, or equivalent shall be in place and hydrants operational at time of lumber drop inspection.

3. For projects with fuel modification, a vegetation clearance inspection is required prior to a lumber drop inspection. Use the fuel modification plan service request number to schedule the vegetation clearance inspection.

4. Phased installation of fire access roads requires additional inspections not covered by the fees paid at plan submittal. Contact Inspection Scheduling to arrange for additional inspections that may be needed and any fees that may be due.

5. An original approved, signed, wet-stamped OCFA fire master plan shall be available on-site at time of inspection.

6. Access roads and hydrants shall be maintained and remain clear of obstructions at all times during and after construction. Areas where parking is not permitted shall be clearly identified at all times. Obstruction of fire lanes and hydrants may result in cancellation or suspension of inspections.

7. Temporary fuel tanks of 60 or more gallons shall be reviewed, inspected, and permitted by the OCFA prior to use.

8. The project address shall be clearly posted and visible from the public road during construction.

9. All gates in construction fencing shall be equipped with either a Knox or breakaway padlock.

10. Buildings of four or more stories shall be provided with stairs and a standpipe before reaching 40 feet in height.

11. Fire lane widths shall be measured from top face of the curb to top face of the curb for fire lanes with standard curbs and gutters and from flow-line to flow-line for fire lanes with modified curb designs (e.g., rolled, ramped, etc.). The developer is responsible to verify that all approved public works or grading department street improvement plans or precise grading plans conform to the minimum access road measurements per the approved OCFA fire master plan and standards identified in OCFA Guideline B-09 for all portions of the fire access roads.

12. Permanent, temporary, and phased emergency access roads shall be designed and maintained to support an imposed load of 68,000 lbs. and surfaced to provide all-weather driving capabilities.

13. Fire lane signs and red curb shall meet the specifications shown in OCFA Guideline B-09 and shall be installed as described therein. Additional fire lane markings may be required at the time of inspection depending on field conditions.

14. All fire hydrants shall have a "Blue Reflective Pavement Marker" indicating their location per the OCFA standard. On private property markers are to be maintained in good condition by the property owner.

15. Address numbers shall be located and be of a color and size so as to be plainly visible and legible from the roadway from which the building is addressed in accordance with OCFA Guideline B-09. Wayfinding signs, when required by the local AHJ, shall comply with the standards of that agency. When wayfinding signs are also required by the OCFA, they may be designed to local AHJ requirements per the approved plans. All fire hydrants and water supply for firefighting purposes shall be installed per the approved plans and shall meet all fire flow requirements, prior to any combustible construction materials being delivered for construction.

16. Access gates shall be approved prior to installation and shall be in compliance with Chapter 5 of the CFC and OCFA guidelines.

17. Approved access walkways shall be provided to all required openings and all rescue windows.

18. Vegetation shall be selected and maintained in such a manner as to allow immediate access to all hydrants, valves, fire department connections, pull stations, extinguishers, sprinkler risers, alarm control panels, rescue windows, and other devices or areas used for firefighting purposes. Vegetation for this design using uniform loading. To facilitate this study, a simplified column layout has been analyzed under various loading conditions.

19. Dumpsters and trash containers larger than 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.

20. Any future modification to the approved Fire Master Plan or approved site plan, including but not limited to road width, grade, speed humps, turning radii, gates or other obstructions, shall require review, inspection, and approval by the OCFA.

21. Approval of this plan shall not be construed as approval of any information or project conditions other than those items and requirements identified in OCFA Guideline B-09 and related portions of the 2013 CFC and CBC. This project may be subject to additional requirements not stated herein upon examination of actual site and project conditions or disclosure of additional information.

22. An underground piping plan is required for the installation of an automatic fire sprinkler system or for a private fire hydrant system. A separate plan submittal is required.

23. An architectural plan is required to be submitted to the OCFA for review and approval for projects containing A, C, E, F, H, I, L, and R-4 occupancies. A plan may also be required for R-1 and R-2 occupancies over two stories or those utilizing sprinklers or fire walls to increase the maximum building size allowed—see Bulletin 02-13.

24. An automatic fire sprinkler system shall be installed in accordance with applicable codes and local ordinances, amendments, and guidelines. Sprinkler systems, other than those listed in CFC 903.4, shall be monitored by an approved central station. Separate plan submittals for the sprinkler and monitoring systems are required.

25. A fire alarm system shall be installed in accordance with applicable codes and local ordinances, amendments, and guidelines. A separate plan submittal is required.

26. Guideline H-01 Laddering/Staging area setbacks notes:
For buildings over 50 feet, the laddering area shall be no less than 20 and no more than 40 feet from the facade.
Exception: When approved by the fire code official, designated laddering areas are not required provided that the nearest edge of the fire lane is located between 20 and 40 feet from the structure along the entire length of at least two sides of the building, one of which is the longest side of the structure, or for at least 50% of the perimeter of the structure, whichever is greater. An unobstructed minimum 25 foot wide fire lane shall be provided; parking and other obstructions shall not intrude into this clear width.

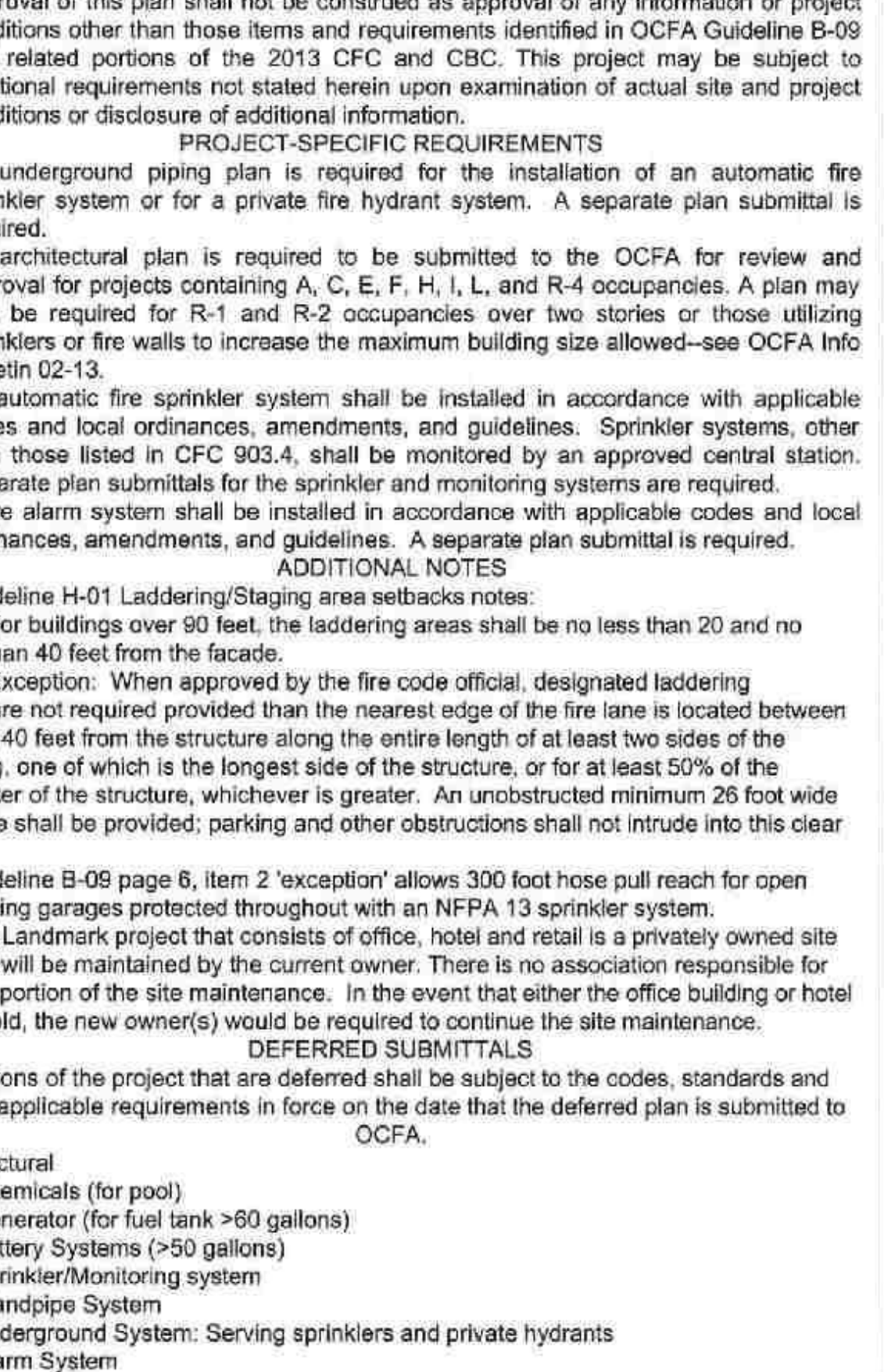
27. Guideline B-09 page 6, Item 2 'Accession' allows 300 foot hose pull reach for open parking garages protected throughout with an NFPA 13 sprinkler system.

28. The Landmark project that consists of office, hotel and retail is a privately owned site that will be maintained by the current owner. There is no association responsible for any portion of the site maintenance. In the event that either the office building or hotel is sold, the new owner(s) would be required to continue the site maintenance.

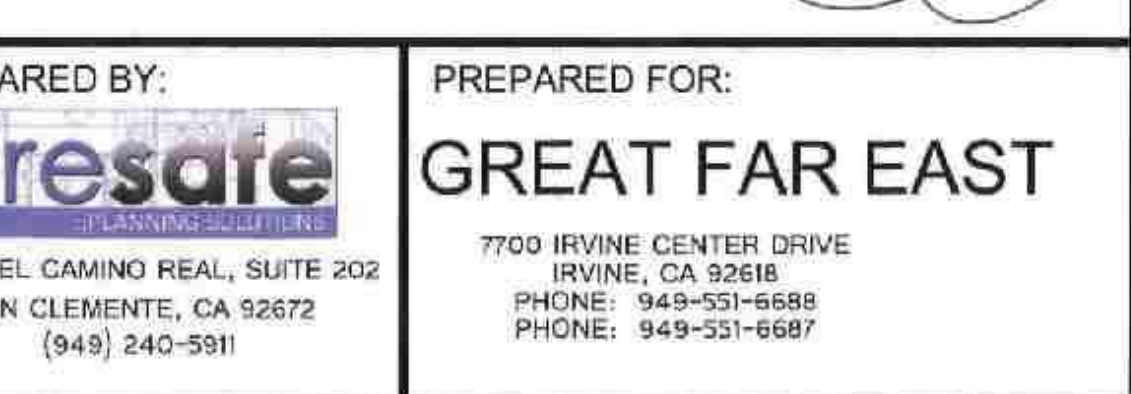
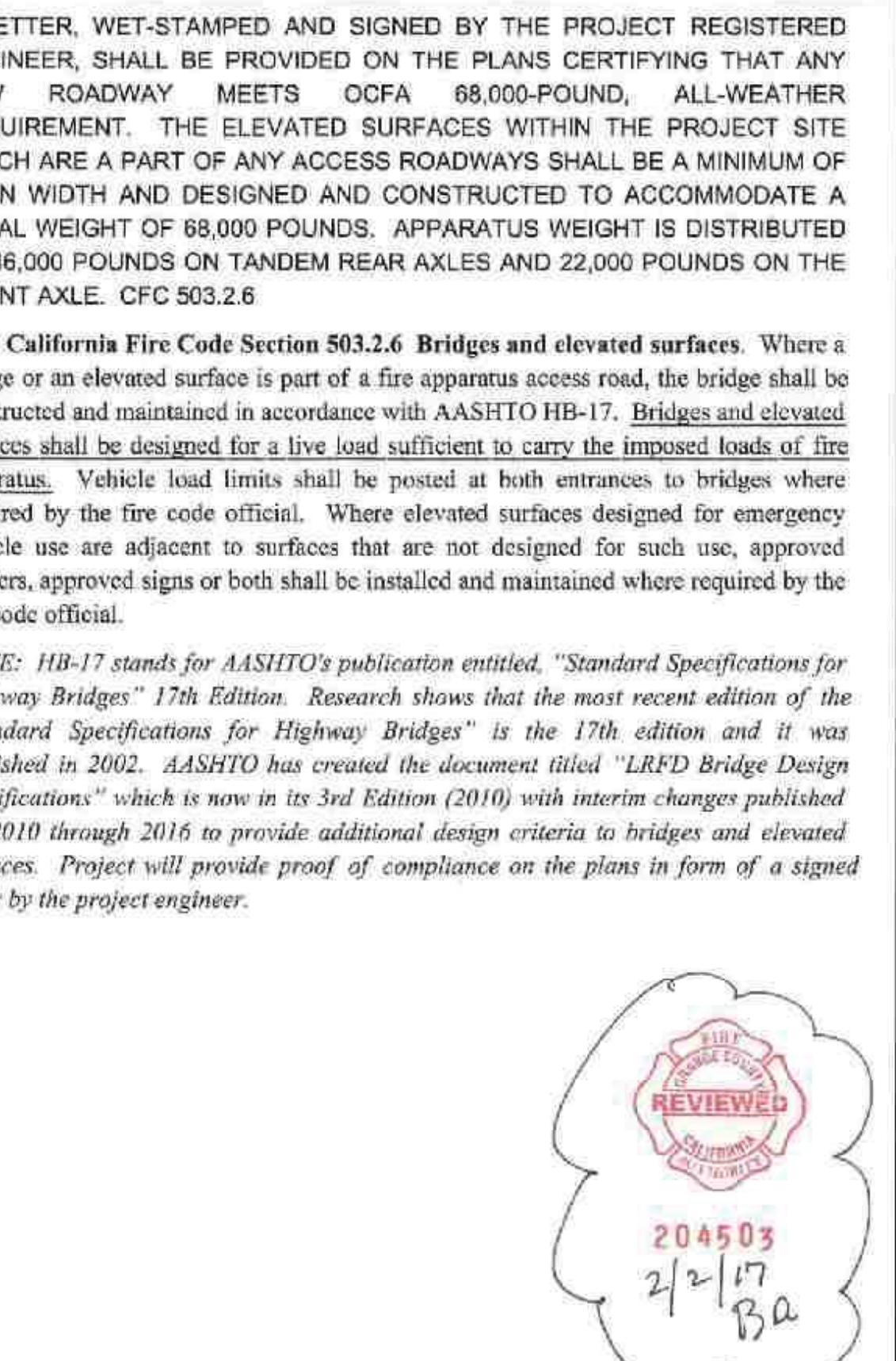
DEFERRED SUBMITTALS
Portions of the project that are deferred shall be subject to the code, standards and other applicable requirements in force on the date that the deferred plan is submitted to OCFA.

Architectural:
• Chemicals (for pool)
• Generator (for fuel tank +80 gallons)
• Battery Systems (+50 gallons)
• Sprinkler/Monitoring system
• Standpipe System
• Underground System: Serving sprinklers and private hydrants
• Alarm System

ILLUSTRATION INDEX MAP



VIEW FROM MAC ARTHUR BOULEVARD FACING SOUTH



STRUCTURAL ENGINEER LOADING REPORT

NABIH YOUSSEF
A S E C I A T E
STRUCTURAL ENGINEERS
January 10, 2017

Orange County Fire Authority
Fire Prevention Bureau
Planning & Enforcement Services
1 Fire Authority Road
Irvine, CA 92602

Re: The Landmark - Slab Design for Fire Vehicle Loading - WCD #16002-01

The purpose of this letter is to present the results of our investigation into the effects of the fire vehicle loading requirements on the structural design of the project. The investigation was conducted in accordance with the design of the Level 1 slab in the driveway area between the Office Tower and hotel of the Landmark project. We understand that the project is a 15-story hotel building. The slab to support the weight of the vehicle. The purpose of this study is to show that the 14" thick slab indicated in the Schematic Design can be designed to support the prescribed loading and to provide a simplified method for this design using uniform loading. The actual slab design and detailing will be completed in the Design Development and Construction Document phases of the project.

Truck Loading per California Building

It is not uncommon for structures to be designed for fire vehicle access. Often, fire lanes will occur over portions of subterranean parking structures, where such structures often extend beyond the footprint of the above-grade building. It is common structural engineering practice to design such slabs for a live load of 250 psf which is the prescriptive loading for 'sidewalks, vertical structures and yards' as stated in the California Building Code, Section 16.01.1 and 16.01.2 California Building Code. (See Figure 1).

Fire Vehicle Loads per OCFA Guideline B-09

Fire Master Plans for Commercial & Residential Development Guideline B-09 (shown in Figure 1) submitted by the OCFA prescribes that "slabs" supporting a fire access road shall be designed and constructed to accommodate a total weight of 68,000 pounds distributed as follows: 40,000 lbs. on the main slab, or the tandem rear axle load, and 28,000 lbs. on the front axle load. The required slab reinforcing shall be designed for such loading where necessary to support a fire access road.

Guideline B-09 does not prescribe a specific distribution for these loads. For the purpose of this investigation, the Emergency Vehicle Size and Weight Requirement Guideline published by the International Association of Fire Chiefs (IAFC) was therefore consulted. The size weights for fire engines fall within the range of side weights given for the "Axle Load" - Tandem Rear Axle shown on page 6 of this document. (See Figure 3.) Therefore, the dimensions for the vehicle were used to develop a distribution of the loads as shown in Figure 4. The 48,000 lb. tandem rear axle load is divided into two 23,000 lb. (i.e. 35 kip) loads spaced 4 feet apart.

For this investigation, the effect of these loads on the slab design is compared to the effect to the 250 psf uniform loading for loading per the CBC.

Driveway Layout of the Landmark Level 1 Slab

Figure 5 shows the portion of the ground floor between the office tower and the hotel of the Landmark project. The area of the driveway requiring fire vehicle access is highlighted. Per the Schematic Design set, this area is supported by a 14 inch slab supported on concrete walls. The column spacing varies, but the maximum spacing is 31'-6" in one direction and 30'-4" in the other direction. Note the slab thickness indicated in the Schematic Design - Tandem Rear Axle shown on page 6 of this document. (See Figure 3.) Therefore, the dimensions for the vehicle were used to develop a distribution of the loads as shown in Figure 4. The 48,000 lb. tandem rear axle load is divided into two 23,000 lb. (i.e. 35 kip) loads spaced 4 feet apart.

The purpose of this investigation is not to present a final slab design based on the exact column layout of the project, but rather to confirm that a reinforced concrete slab of the same thickness and similar column spacing as shown in the Landmark Schematic Design set can support the fire vehicle loading and to provide a simplified method for this design using uniform loading. To facilitate this study, a simplified column layout has been analyzed under various loading conditions.

Slab Analysis for Single Vehicle at Middle Strip

Figure 11 shows the slab analysis model for a single vehicle with the rear tandem axle centered on a bay to maximize the required reinforcing in the middle strip. The point loads shown in Figure 12 represent the wheel loads spaced 4 feet apart. Each wheel load is half the axle load shown in Figure 4. In addition to these point loads representing the fire vehicle, a uniform load of 50 psf has been applied to the slab, excepted the footprint of the vehicle as shown in Figure 13. This is a conservative estimate of the weight of other vehicles, people, etc. that could be loaded around the truck. This load exceeds the 40 psf live load required for parking garages per the CBC. Also note that Guideline B-09 prescribes loadings be designed for a total load of 68,000 lbs. The guideline does not prescribe that this load be combined with any other live loads.

The required slab reinforcing in each direction resulting from the loads described above is shown in Figures 13 and 14. Comparing these figures to Figures 9 and 10, it is found that a single fire vehicle with the rear tandem axle located at the center of the bay (plus 50 psf live load elsewhere) does not govern at any location over the required reinforcing for a uniform load of 250 psf.

Slab Analysis for Two Vehicles at Middle Strip

Guideline B-09 does not explicitly require the design of bridges for multiple fire vehicles. However, in practice, a structure may be required to support multiple vehicles in an emergency. For the purposes of this study, we have investigated the effect of two vehicles side-by-side with clear spaces of 4 feet between them. Although it is possible that more than two vehicles could be located on the structure, it is unlikely that they would be located closely enough (i.e. in one bay or adjacent bays) to significantly affect the slab design. (Due to the footprint of the vehicle extending beyond the bays, the most critical loading for multiple vehicles is a side by side rear tandem to end and it is unlikely that there would be three vehicles side by side.) Also note that the effect of the 50 psf uniform load applied in addition to the point loads will account for additional fire vehicles that are located further away.

Figure 16 shows the slab analysis model for two vehicles with the rear tandem axle centered on a bay to maximize the required reinforcing in the middle strip. The point loads shown in Figure 17 represent the two vehicles spaced 4 feet apart. The additional uniform load of 50 psf is shown in Figure 18.

The required slab reinforcing in each direction resulting from the loads described above is shown in Figures 19 and 20. Comparing these figures to Figures 9 and 10, it is found that the two fire vehicles with the rear tandem axle located at the center of the bay (plus 50 psf live load elsewhere) governs only at one location over the required reinforcing for a uniform load of 250 psf. The required north-south direction bottom reinforcing at the middle strip is 13% greater than for the 250 psf live load case.

Slab Analysis for Two Vehicles at Column Strip

Figure 20 shows the slab analysis model for two vehicles with the rear tandem axle centered at mid bay in one direction and on a column in the other direction. This layout is intended to maximize the required reinforcing in the column strip. The point loads for this case are shown in Figure 22. The additional uniform load of 50 psf is shown in Figure 23.

The required slab reinforcing in each direction resulting from the loads described above is shown in Figures 24 and 25. Comparing these figures to Figures 9 and 10, it is found that the two fire vehicles with the rear tandem axle located at the column strip (plus 50 psf live load elsewhere) governs only at one location over the required reinforcing for a uniform load of 250 psf. The required north-south direction bottom reinforcing at the column strip is 3% greater than for the 250 psf live load case.

Slab Analysis Model Under 300 PSF Uniform Live Load

The various load configurations investigated in the study resulting in a worst case increase in reinforcing of 13% over the 250 psf live load case. This is a fairly moderate increase. Since it is much simpler to analyze the slab under a uniform load rather than point loads (which would need to be separately analyzed in multiple configurations in multiple bays), we propose increasing the uniform live load case of 250 psf for trucking per the CBC to 300 psf to account for the loading requirements per Guideline B-09.

The slab analysis under a 300 psf uniform live load (as shown in Figure 26) results in the required reinforcing shown in Figure 27 and 28. In comparing these figures to those for various load configurations investigated in this study, it is found that the 300 psf live load case governs over the various other load configurations except for one condition. For two vehicles in the middle strip, the bottom reinforcing at the middle strip is 2% greater than for the 300 psf live load case. This is a very minor difference.

Conclusions

Based on the results of the various slab analyses performed for this study, the 14" reinforced concrete slab indicated in the Schematic Design drawings for the Landmark project will be adequate to support the fire vehicle loading prescribed by OCFA Guideline B-09. The reinforcing required based on this loading (assuming two side by side vehicles) exceeds that required for a 250 psf uniform live load (per CBC) by only 13% at the center of the bay, increasing the uniform load to 300 psf reduces this difference to only 2%.

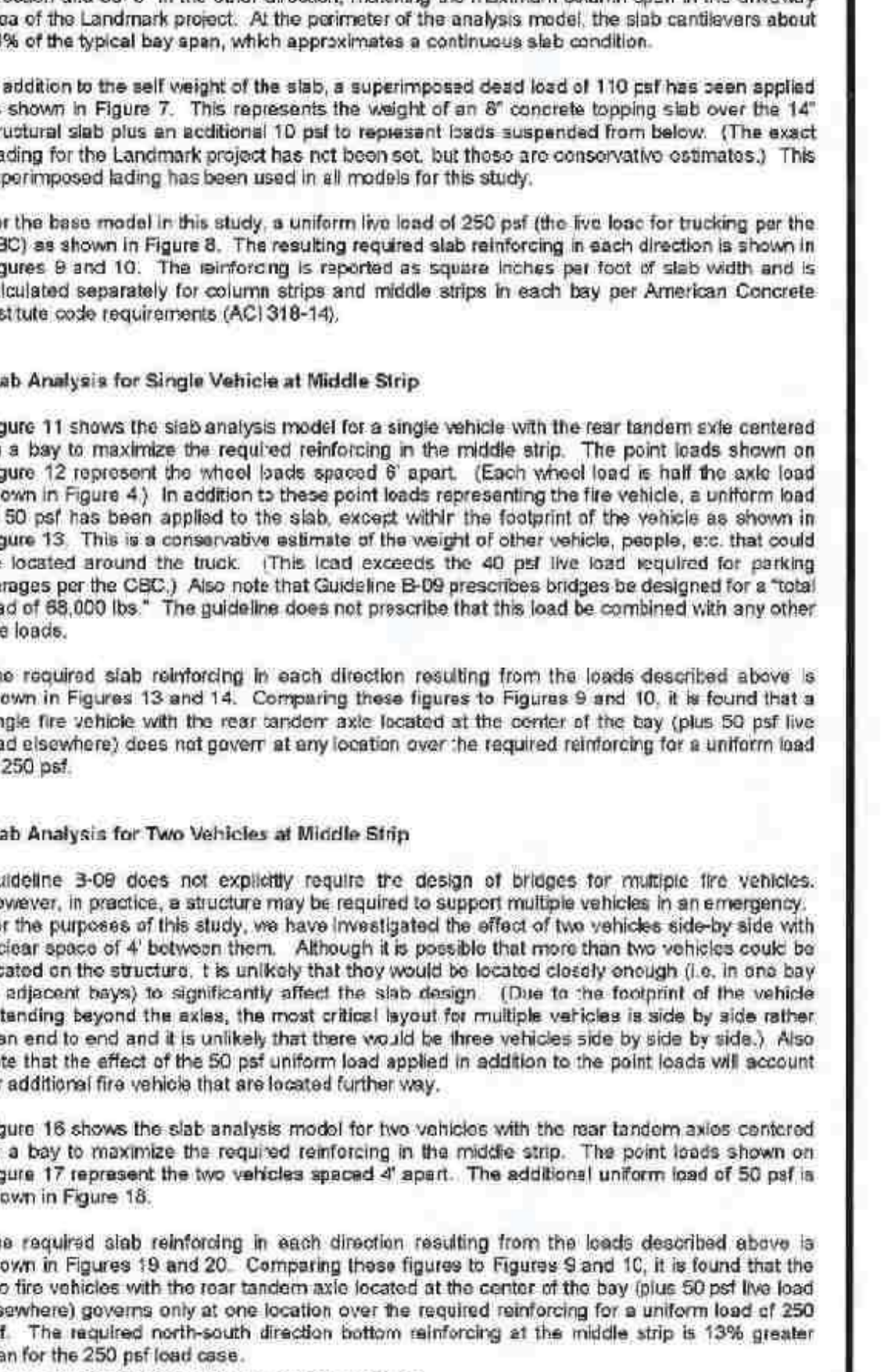
The final slab analysis, design and detailing for the project will be completed during the Construction Documents phase of the project based on the actual column layout and other specific conditions that have not been accounted for in the analyses performed for this study. However, in our judgment, a uniform live load of 300 psf will be adequate to capture the effect of fire vehicle loading in the driveway areas of the ground floor slab based on the results of this study. Note that the 2% difference noted above is small considering the safety factors involved in reinforced concrete design. For instance, the design load combination is 1.2D + 1.6L, which means the required strength (i.e. required area of reinforcement) is based on a 60% increase in the live load case. Thus, the 300 psf applied service live load becomes 480 psf in the analysis for strength design.

Please let us know if you have questions regarding this matter.

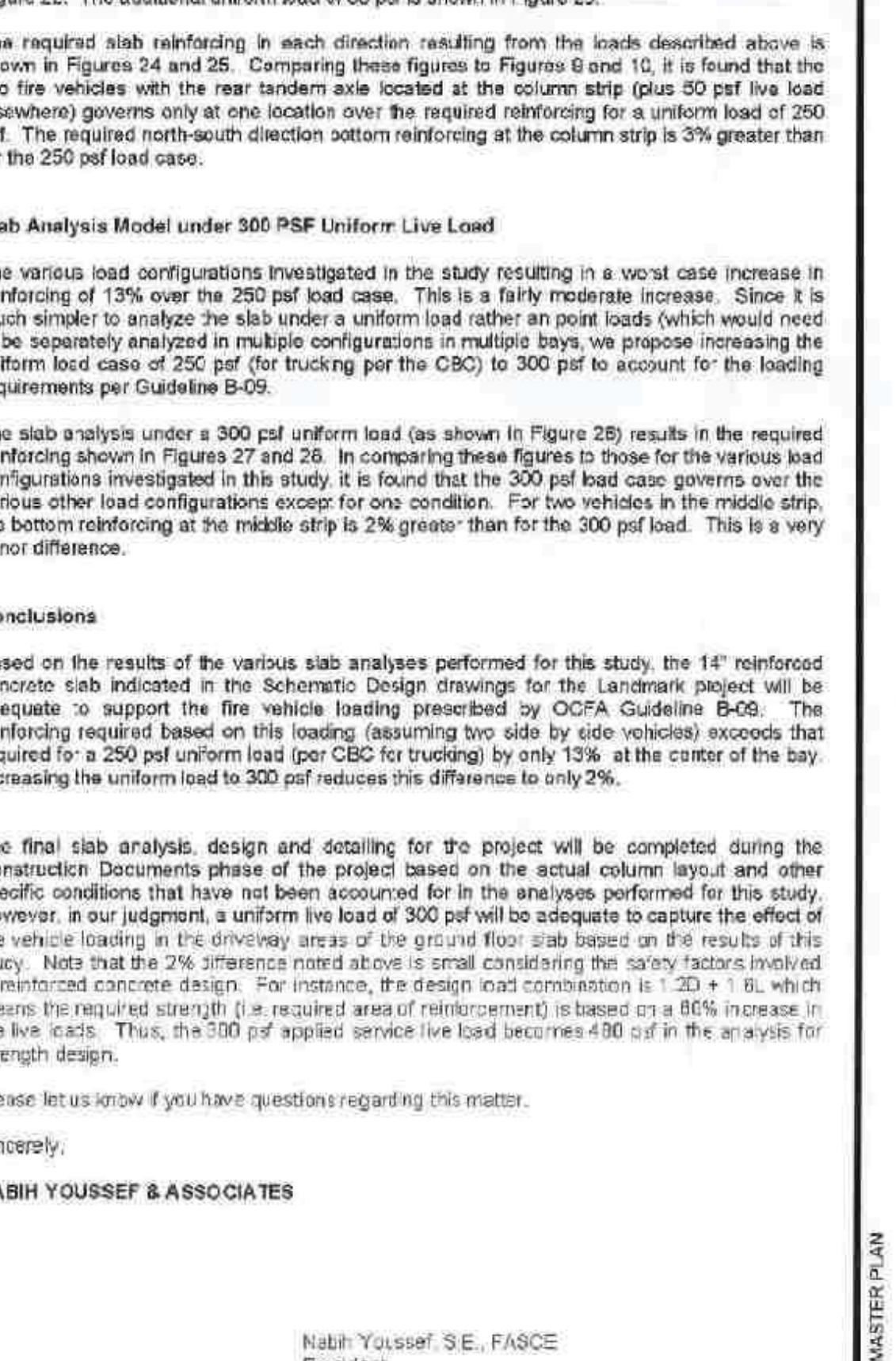
Sincerely,
NABIH YOUSSEF & ASSOCIATES

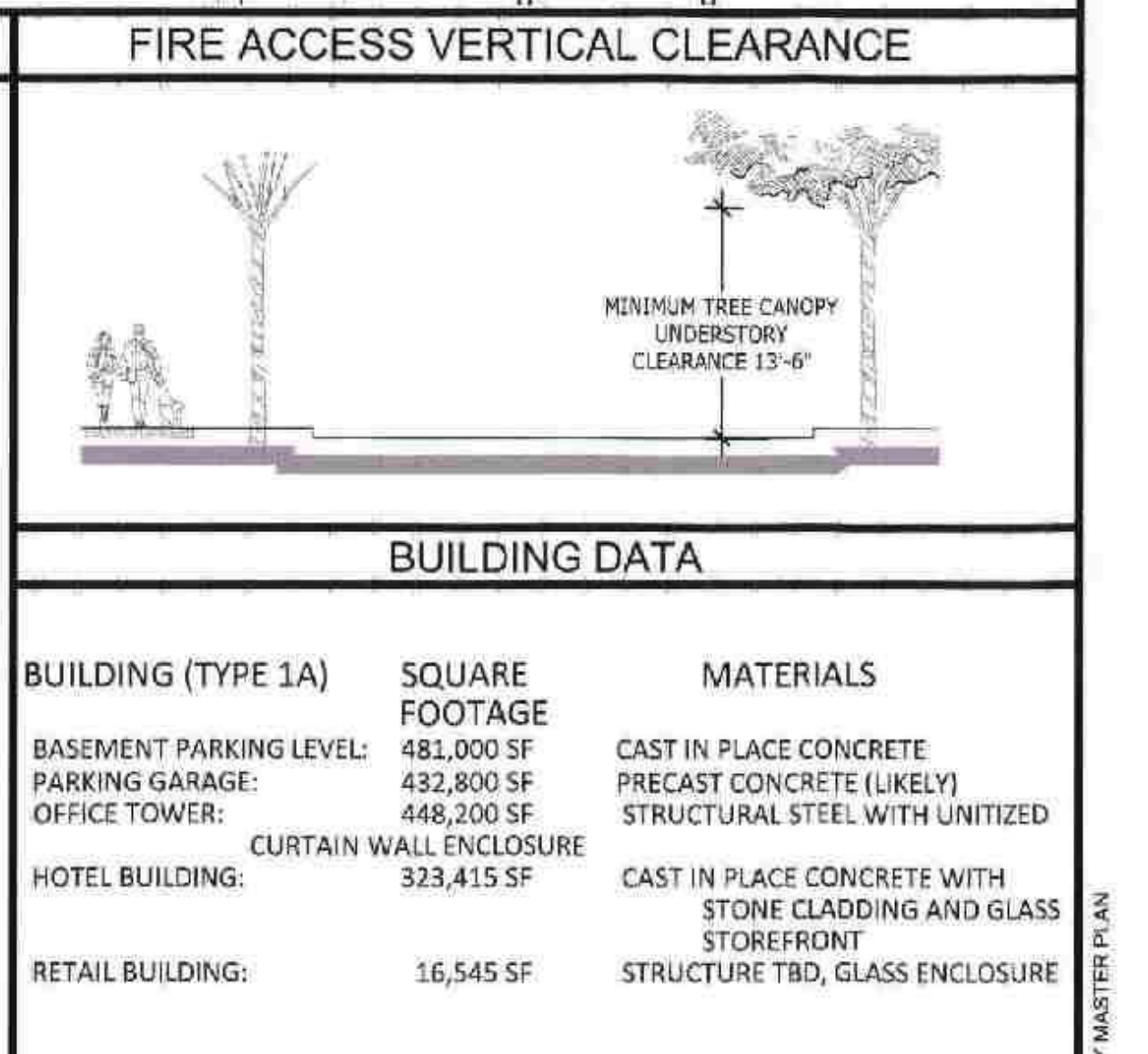
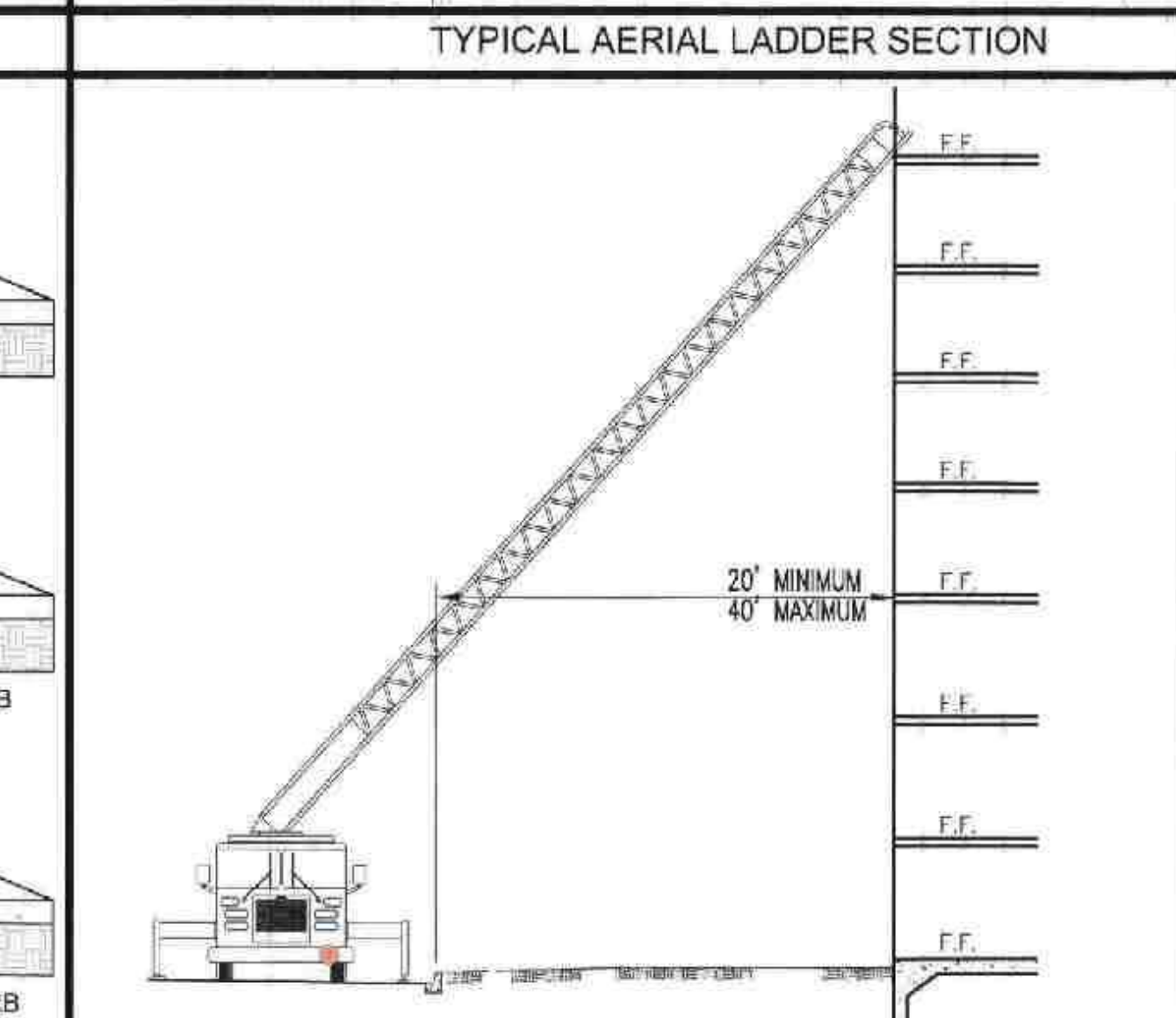
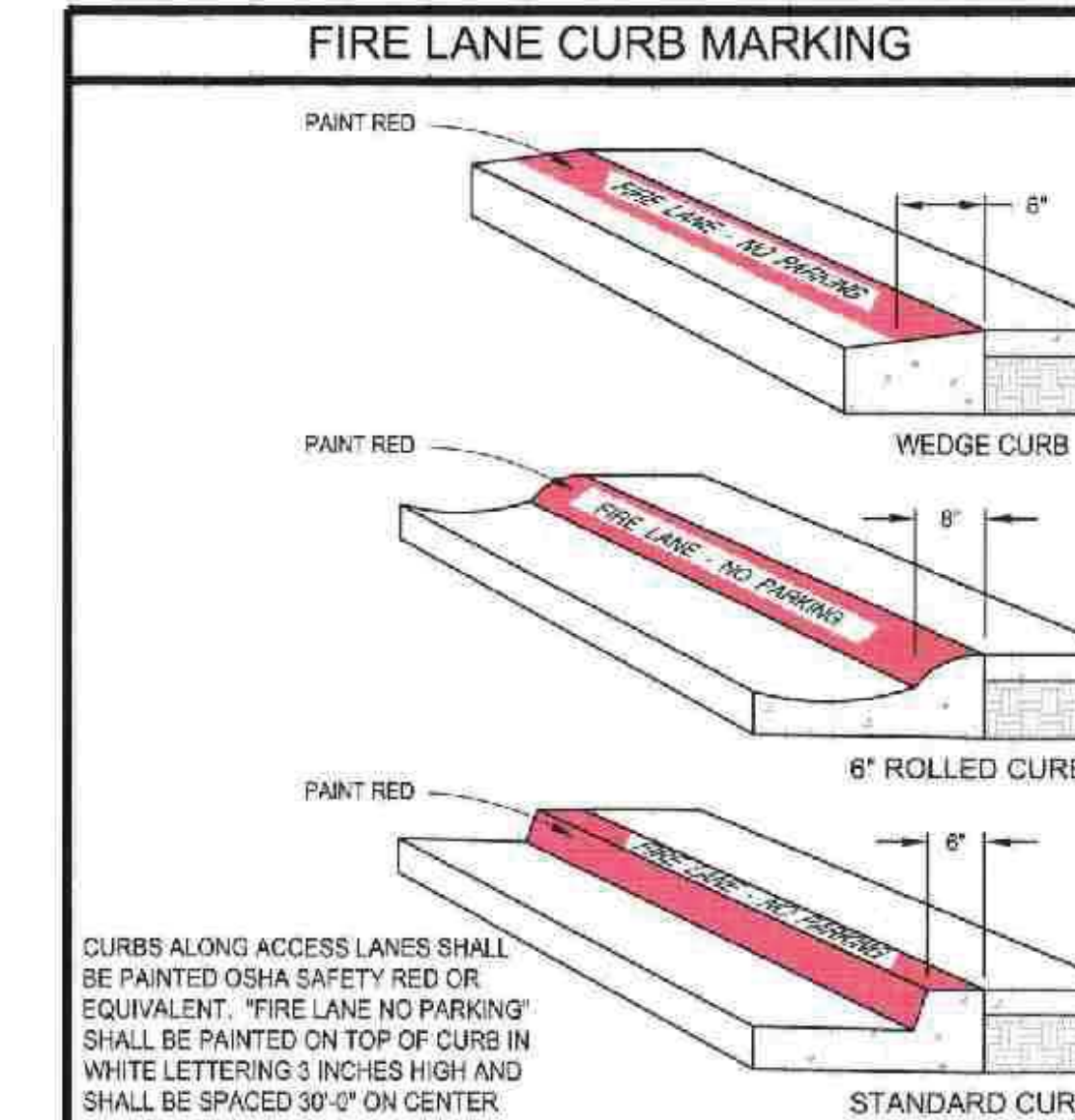
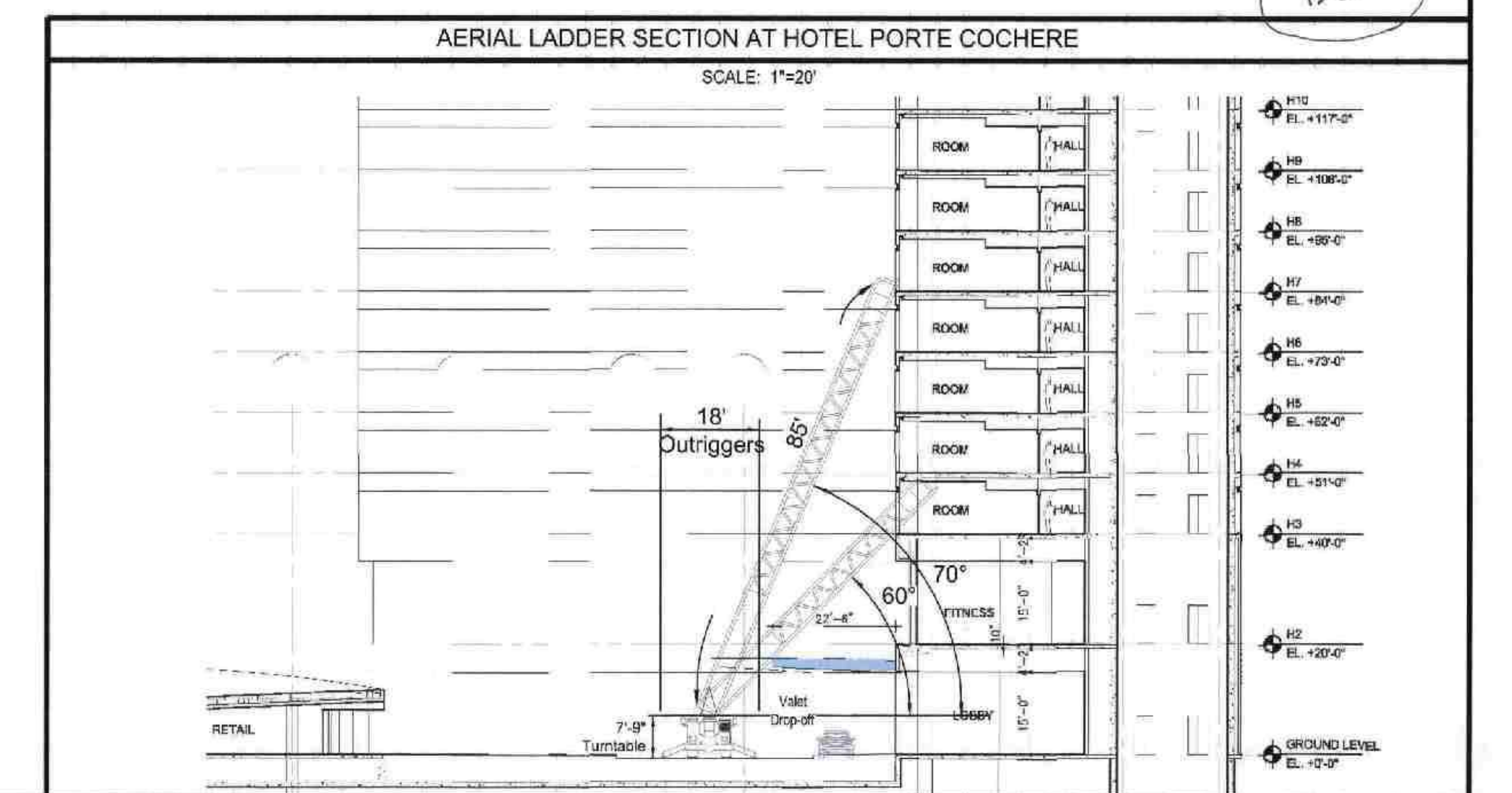
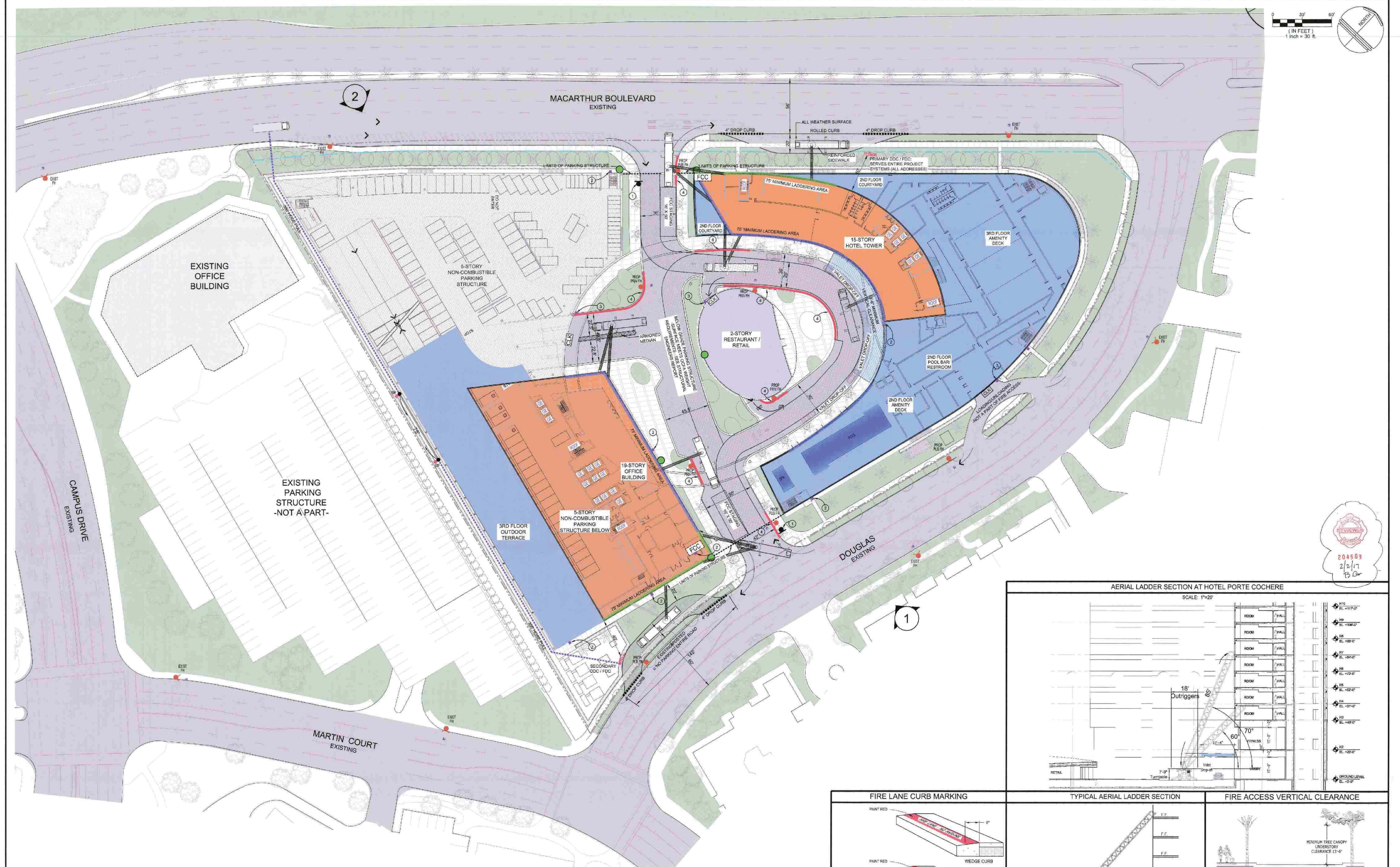
NABIH YOUSSEF, P.E., FASCE
Principal

ILLUSTRATION INDEX MAP



VIEW FROM MAC ARTHUR BOULEVARD FACING SOUTH





LEGEND

FOC	FIRE COMMAND CENTER ROOM		AERIAL TRUCK ACCESS TO TOWER / AT GRADE STAGING
E	ELEVATOR		AERIAL TRUCK ACCESS TO TOWER / ON DECK STAGING
CLK	CLICK 2 ENTER GATE ACCESS		150' HOSE PULL TO EXTERIOR PORTIONS OF BUILDING
ROOF	STAIRWAY WITH ROOF ACCESS		300' HOSE PULL AT NON-COMBUSTIBLE SPRINKLERED GARAGE - SEE FIRE NOTE 1 UNDER ADDITIONAL NOTES, SHEET 1
	BUILDING IDENTIFICATION LOCATIONS - 8" MIN. TALL LETTERING - APPROXIMATE LOCATION SHOWN - SEE SIGNAGE PACKAGE FOR FINAL DESIGN		OUT OF ROOF PIPE ACCESS AS PART OF A 30' REQUEST
EXIST	EXISTING PUBLIC FIRE HYDRANT		PAINTED RED CURB PER DETAIL AND OCAFA GUIDELINES
PROP	PROPOSED PUBLIC FIRE HYDRANT CHROME OR BRASS FINISH	KNOX	KEY SWITCH OR SUB-JEYED KNOX LOCK WITH 4-SETS OF KEYS
PROP	PROPOSED PRIVATE FIRE HYDRANT CHROME OR BRASS FINISH		INDICATES ILLUSTRATION VIEW NUMBER AND DIRECTION - SEE ILLUSTRATIONS ON SHEET MP-040
	INDICATES BLUE REFLECTIVE FIRE HYDRANT MARKER. MARKER SHALL BE PLACED ON HYDRANT SIDE OF CENTER LINE OF STREET		INDICATES PAVED FIRE ACCESS
SP	WET STAND PIPE		INDICATES PAVED FIRE ACCESS ON DECK OF PARKING STRUCTURE

CONSTRUCTION NOTES	
1	INSTALL FIRE LANE ENTRY SIGN PER DETAIL ON SHEET 1 AND OCFA GUIDELINES
2	INSTALL SUB-KEYED KNOX BOX WITH 3-SETS OF KEYS PER OCFA GUIDELINES
3	INSTALL KNOX KEY SWITCH PER OCFA GUIDELINES
4	PAINt CURB RED 15' ON EITHER SIDE OF HYDRANT AS SHOWN PER OCFA GUIDELINES


LANDSCAPE ARCHITECT
BURTON LANDSCAPE
ARCHITECTURE STUDIO
307 S. CEDROS AVE
SOLANA BEACH, CA 92075

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SUITE 100
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P. (949) 261-1001

ARCHITECT
**PEI COBB FREED
& PARTNERS**
ARCHITECTS LLP
7700 IRVINE CENTER DRIVE
IRVINE, CA 92618

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NABIH YOUSSEF
ASSOCIATES
STRUCTURAL ENGINEER
800 WILSHIRE BOULEVARD, STE 20
LOS ANGELES, CA 90017

CIVIL ENGINEER:

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CONSULTING CIVIL ENGINEERS
23 Mauchly, Suite 110
Irvine, CA 92618
Phone: 949-727-9095
Fax: 949-727-9096

PREPARED BY:

firesafe
PLANNING SOLUTIONS

302 N. EL CAMINO REAL, SUITE 202
SAN CLEMENTE, CA 92672
(949) 240-5911

PREPARED FOR:
GREAT FAR EAST
7700 IRVINE CENTER DRIVE
IRVINE, CA 92618
PHONE: 949-351-6668
PHONE: 949-351-6687

<p>OCFA CITY MASTER PLAN FOR CONDITION OF APPROVAL OCFA CITY MASTER PLAN, DETAILS THE LANDMARK MAC ARTHUR BOULEVARD TENTATIVE TRACT NO. 2616-139 CITY OF IRVINE</p>	<p>SHEET 2 OF 2 SHEETS</p>
--	---

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(949) 551-8000

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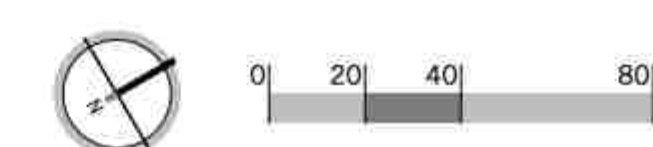
Symbol

Symbol	Description
	Phoenix canariensis Palm Tree

Symbol

 Ornamental Planting

 Faux Turf



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No.	Date	Revision
00	05/12/16	SUBMISSION No. 1
01	12/01/16	SUBMISSION No. 2
02	01/27/17	SUBMISSION No. 3

STAMP

CONCEPTUAL
LANDSCAPE PLAN -
THIRD LEVEL

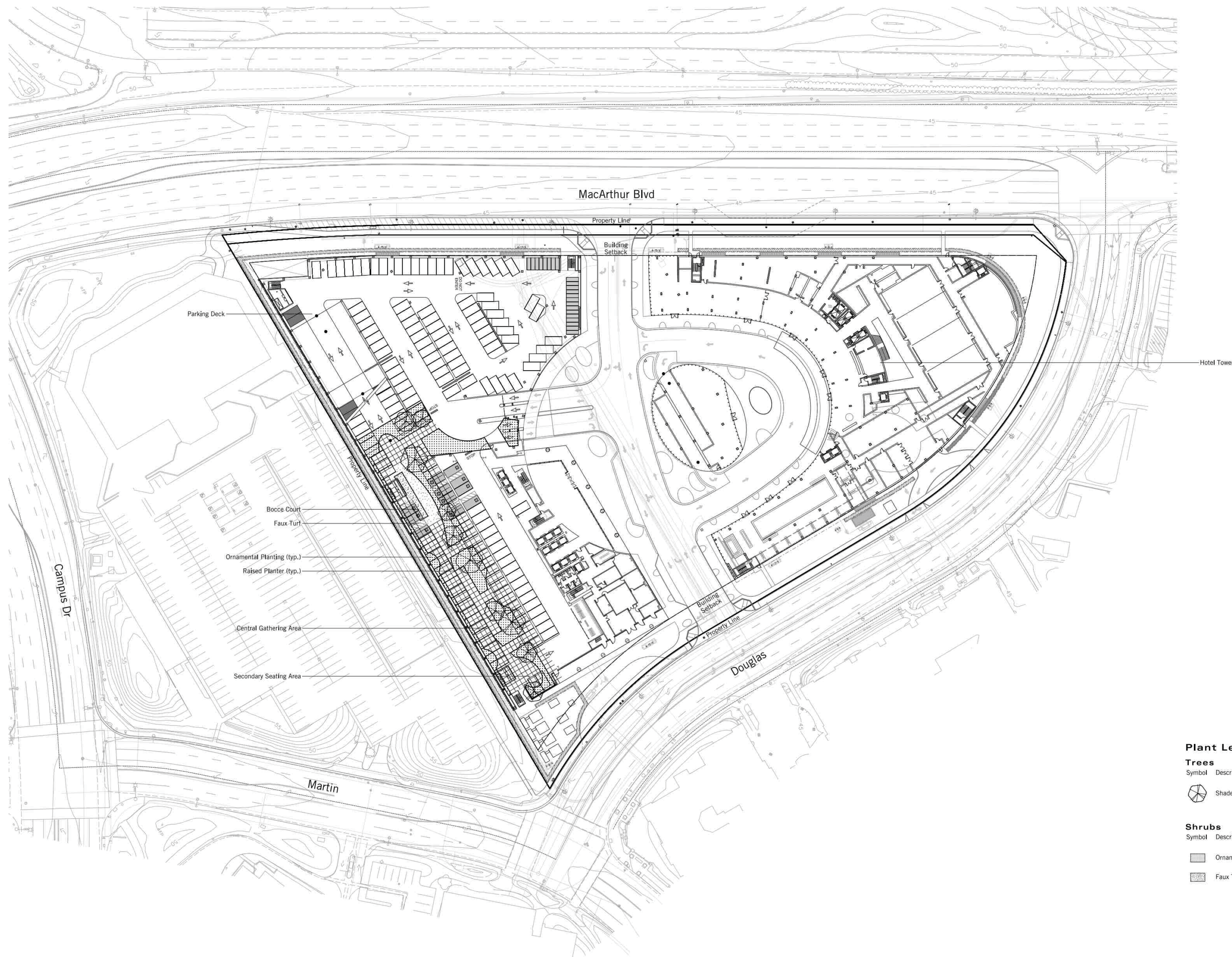
DRAWN _____ CHECKED _____

SCALE	PROJECT NO.
1" = 40'	PCF-1514
DATE	REV.
01/27/17	

DRAWING NO.

MP-022

PEI COBB FREED & PARTNERS
Architects LLP

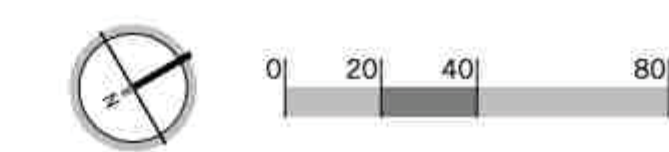


Trees

Symbol	Description
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Symbol	Description
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SCALE PROJECT NO.
1" = 40' PCF-1514

01/27/17

MP-023

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01	03/08/16	SUBMISSION No. 2
02	05/12/16	SUBMISSION No. 3
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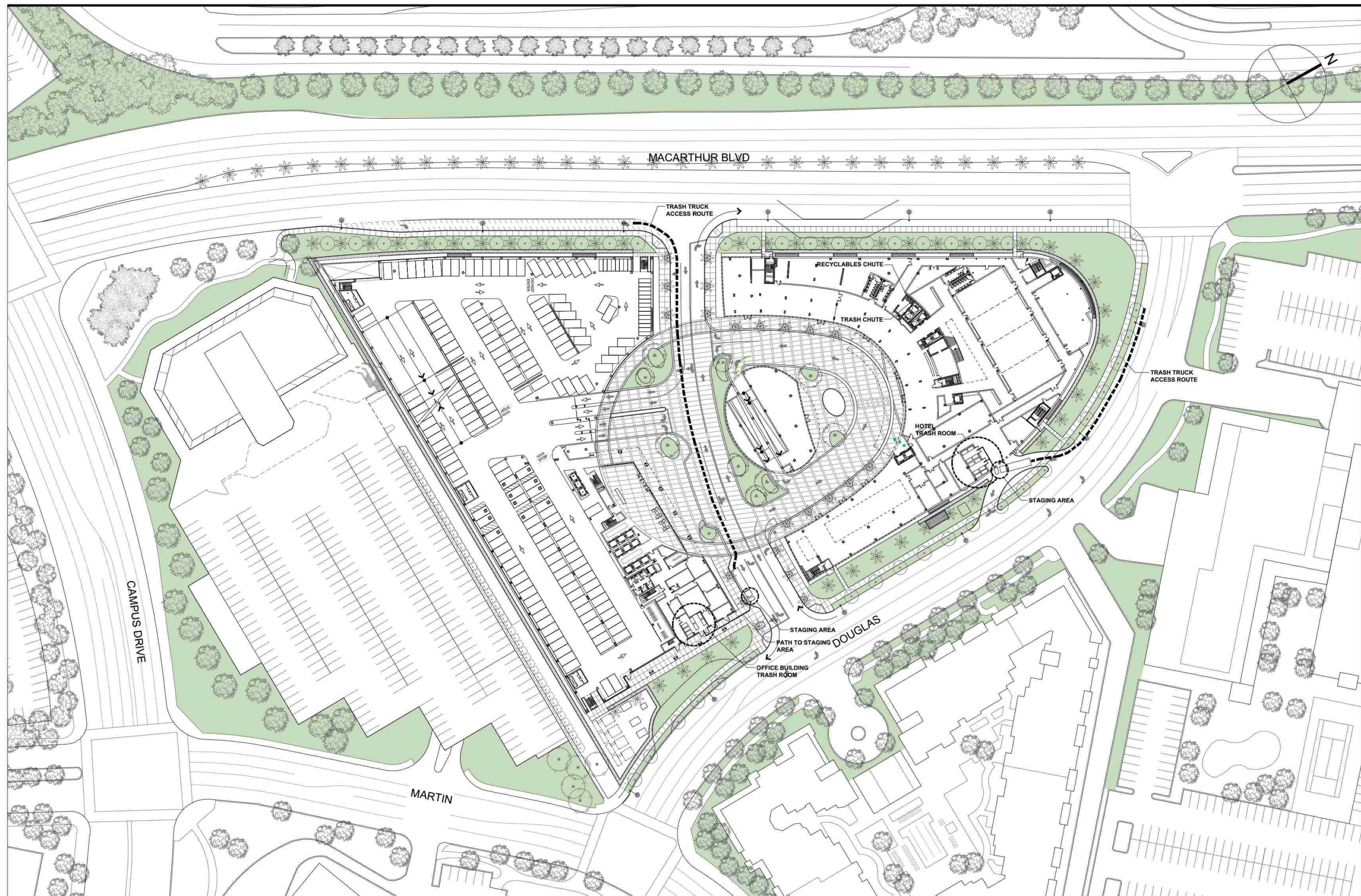
1" = 40' PCF-1514

5/12/16

DRAWING NO.

MP-030

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GREEN WASTE WILL BE COLLECTED BY THE LANDSCAPE CONTRACTOR DURING REGULAR MAINTANANCE, REMOVED FROM THE PROPERTY AND DEPOSITED IN A CITY OF IRVINE APPROVED COLLECTION FACILITY

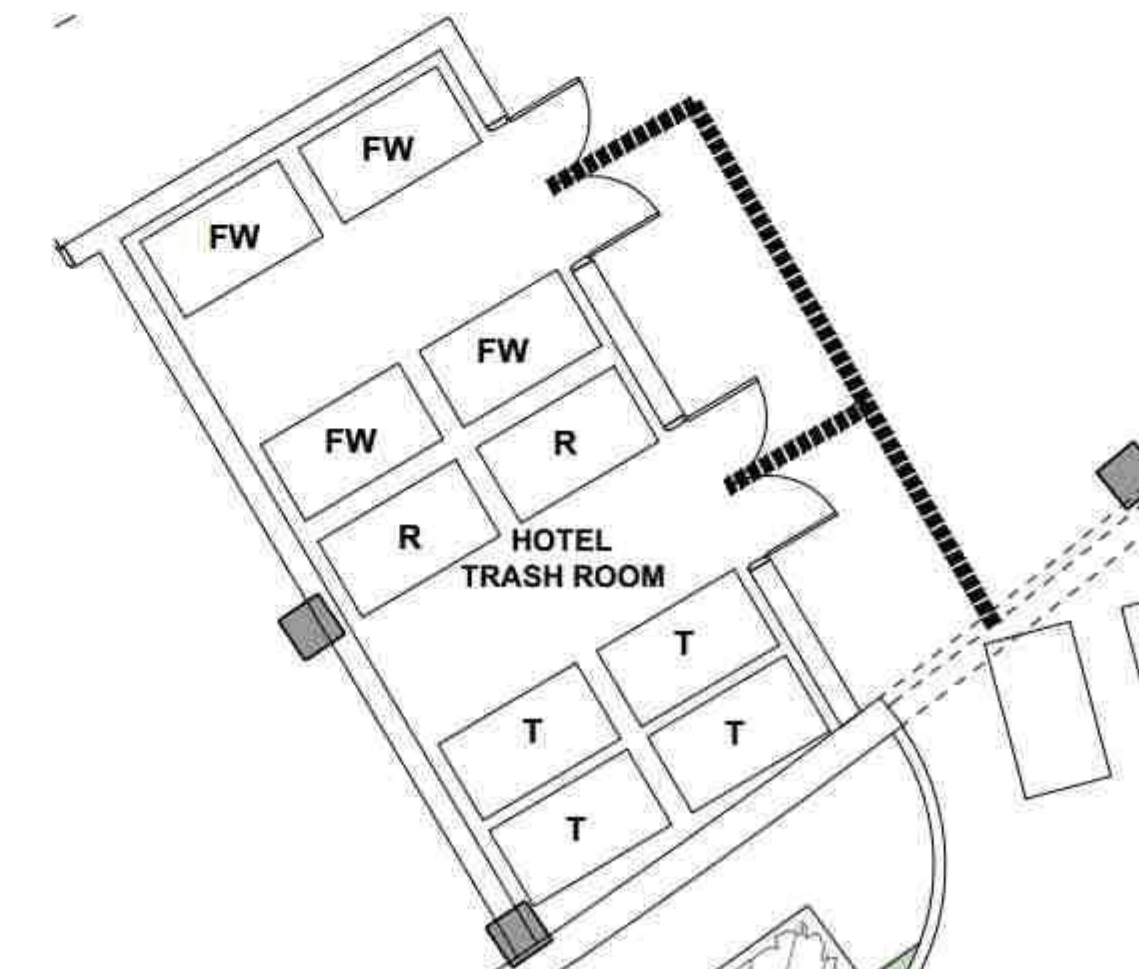
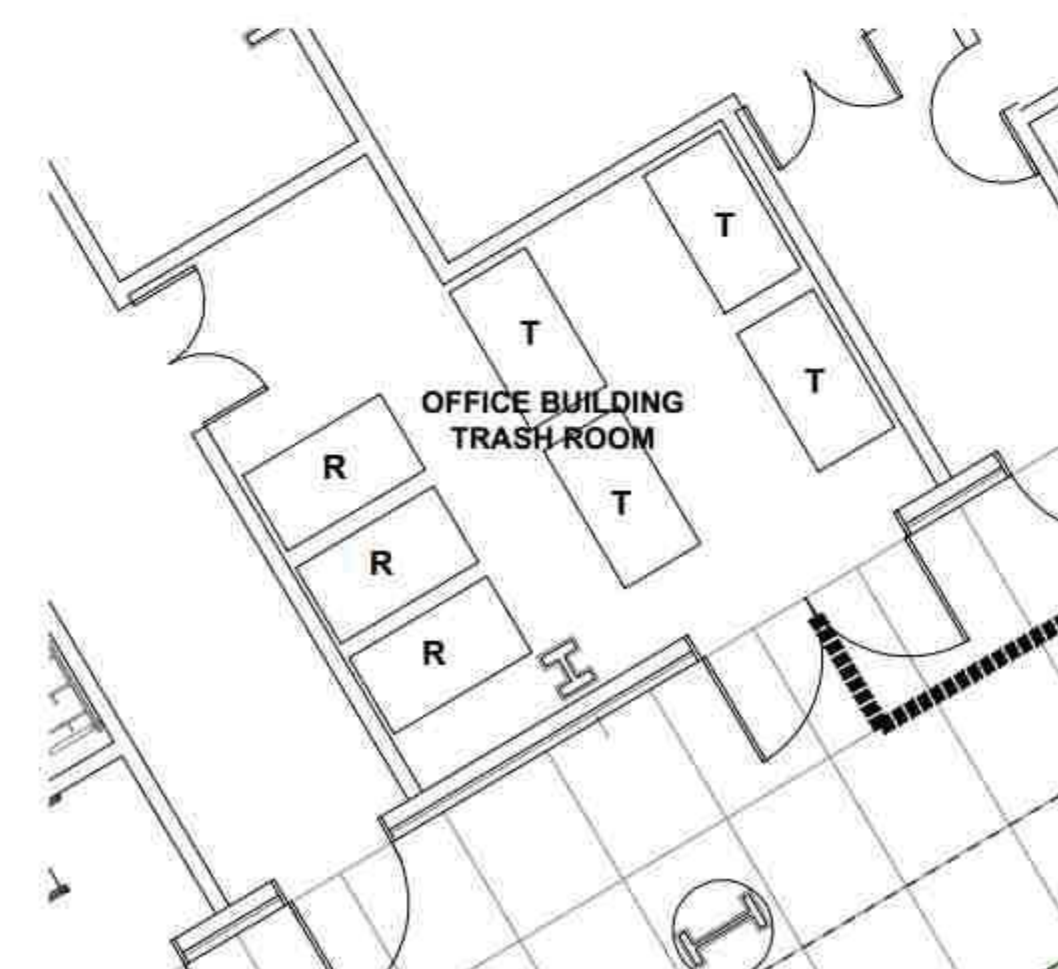
TRASH AND RECYCLABLES WILL BE COLLECTED IN BUILDING AND MOVED TO TRASH ROOM FOR DISPOSAL IN SEVEN (7) 3-YARD TRASH BINS; 21 YDS TOTAL. TRASH BINS WILL BE MOVED TO STAGING AREA BY BUILDING STAFF ON COLLECTION DAYS, ANTICIPATED TO BE EACH WORKDAY. TRUCKS SHALL ACCESS SITE FROM MACARTHUR BOULEVARD AND APPROACH THE STAGING AREA FROM THE WEST AND EMPTY TRASH BINS INTO TRUCK IN AN AREA CLEAR TO SKY.

T	TRASH
R	RECYCLABLES

TRASH, RECYCLABLES AND FOOD WASTE WILL BE COLLECTED AT TRASH CHUTE, RECYCLABLES CHUTE AND BOH AREAS.

TRASH, RECYCLABLES AND FOOD WASTE WILL BE MOVED TO TRASH ROOM FOR DISPOSAL IN TEN (10) 3-YARD TRASH BINS; 30 YDS TOTAL. TRASH BINS WILL BE MOVED TO STAGING AREA BY BUILDING STAFF ON COLLECTION DAYS. TRASH TRUCK WILL APPROACH FROM SOUTHBOWN ON DOUGLAS AND EMPTY TRASH BINS INTO TRUCK IN AN AREA CLEAR TO SKY.

T	TRASH
R	RECYCLABLES
FW	FOOD WASTE



STRUCTURAL ENGINEER LOADING REPORT

BUILDING DATA

BUILDING DATA

Subject: Combustible Construction Letter OCFA Service Request Number 213694, The Landmark, Irvine, CA

11 Fire lane widths shall be measured from top face of the curb to top face of the curb for fire

[illegible]

PEI COBB FREED & PARTNERS

PAINTED METAL PANEL

INSULATED GLASS

PAINTED METAL PANEL

PRE-CAST CLADDING

EL=51'-10"

USTIBLE PARKING
STRUCTURE

• Alarm System

ELEVATED ROADWAY SURFACE NO

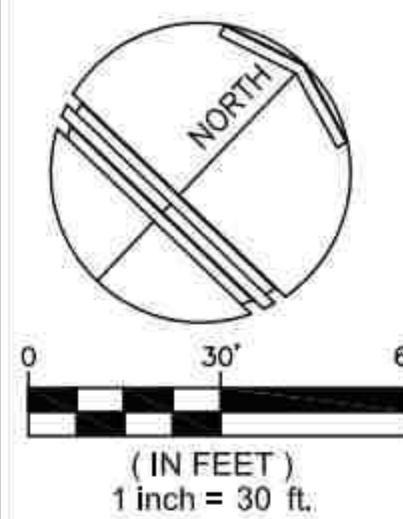
A LETTER, WET-STAMPED AND SIGNED BY THE PROJECT REG
PROVIDED ON THE PLANS CERTIFYING THAT ANY NE
68,000-POUND, ALL-WEATHER REQUIREMENT. THE ELEVAT
PROJECT SITE WHICH ARE A PART OF ANY ACCESS ROADWAY
IN WIDTH AND DESIGNED AND CONSTRUCTED TO ACCOMMODA
POUNDS. APPARATUS WEIGHT IS DISTRIBUTED AS 46,000 POU
AND 22,000 POUNDS ON THE FRONT AXLE. CFC 503.2.6

2016 California Fire Code Section 503.2.6 Bridges and eleva
or an elevated surface is part of a fire apparatus access road, t
and maintained in accordance with AASHTO HB-17. Bridges
designed for a live load sufficient to carry the imposed loads o
limits shall be posted at both entrances to bridges where requ
Where elevated surfaces designed for emergency vehicle use are
not designed for such use, approved barriers, approved signs
maintained where required by the fire code official.

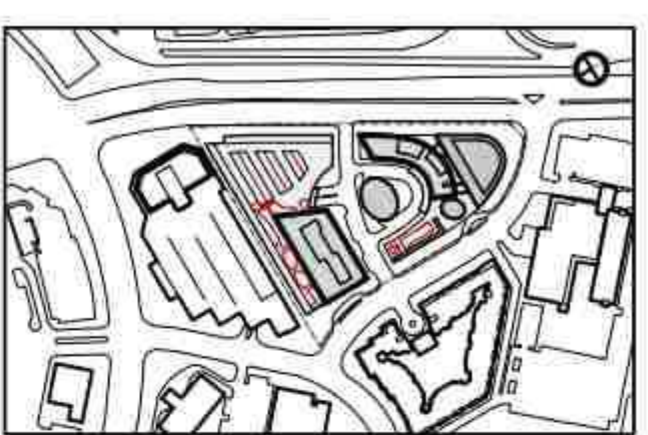
NOTE: HB-17 stands for AASHTO's publication entitled, Highway Bridges" 17th Edition. Research shows that the most r Specifications for Highway Bridges" is the 17th edition an AASHTO has created the document titled "LRFD Bridge Design in its 3rd Edition (2010) with interim changes published for 2 additional design criteria to bridges and elevated surfaces. compliance on the plans in form of a signed letter by the project

2016 California Fire Code Section 503.2.6 Bridges and elevated surfaces. Where a bridge

[illegible]



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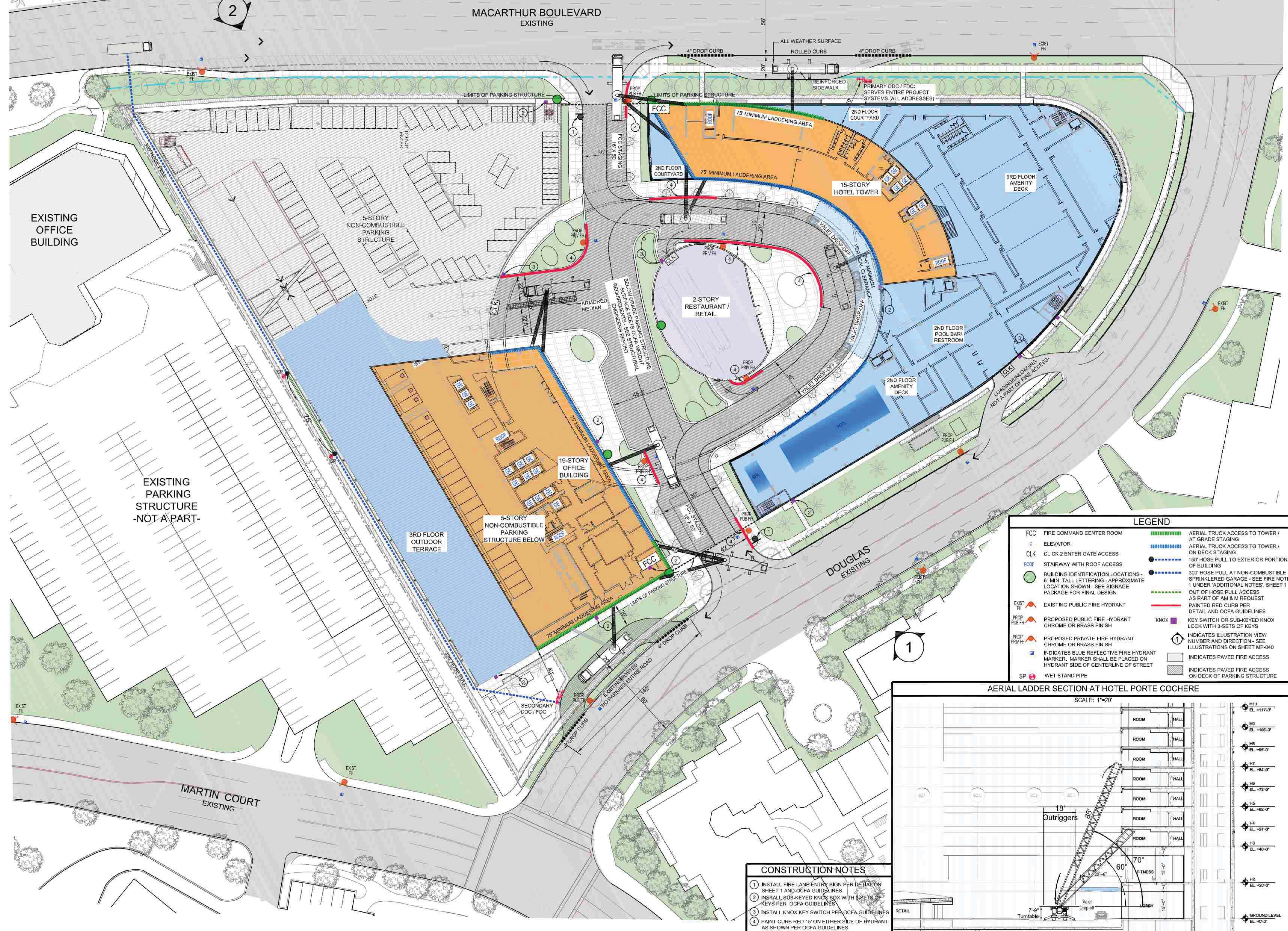
MASTER PLAN SUBMITTAL
Case #: 00659728-PMPC
JANUARY 27, 2017

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DRAWING TITLE
FIRE MASTER PLAN
SITE PLAN,
AERIAL LADDER SECTION

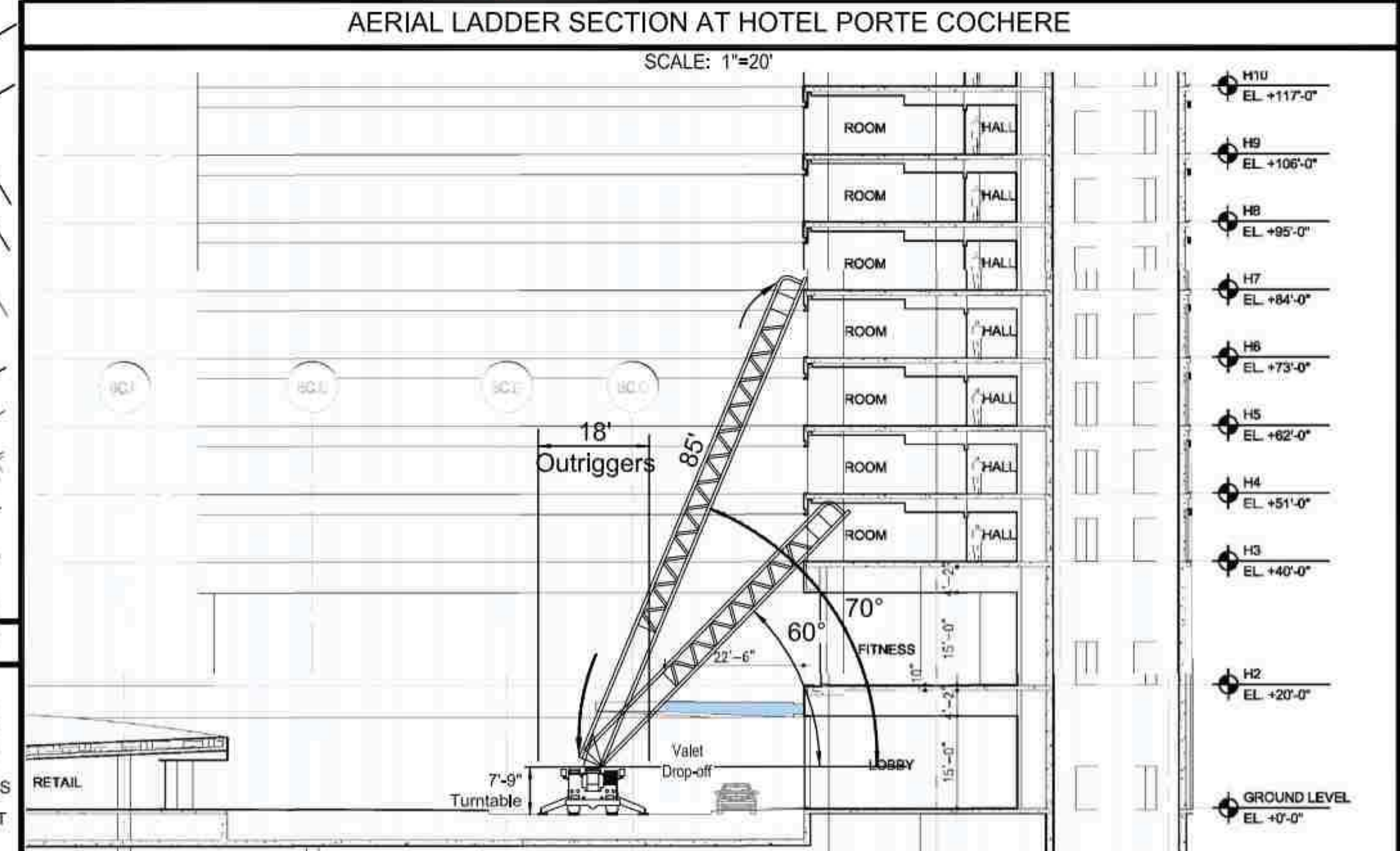
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SCALE _____ **PROJECT NO.** _____
SCALE: 1"=30' PCF-1514
DATE 12/1/16 **REV.** _____

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FM-02
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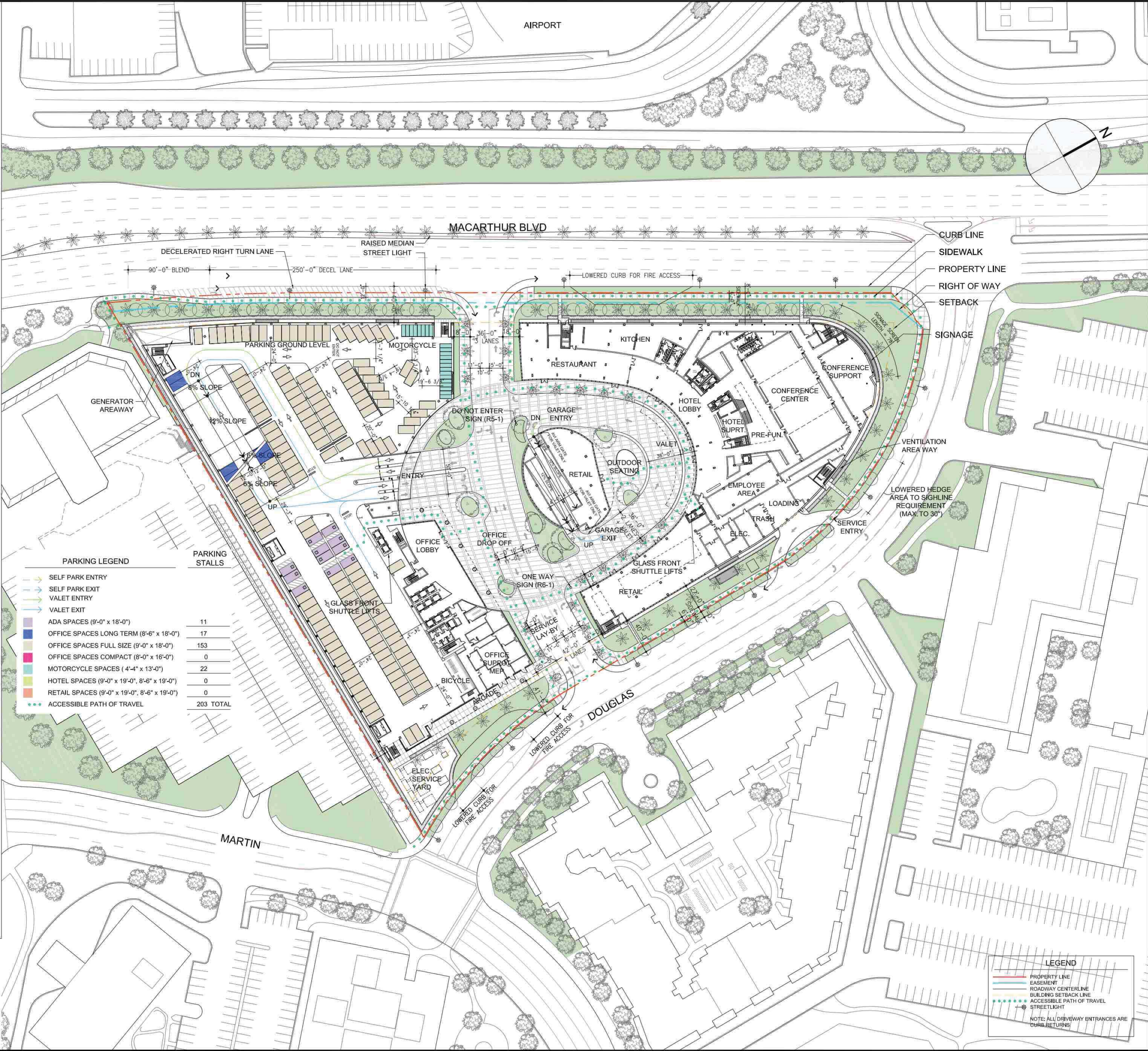
LEGEND

FCC	FIRE COMMAND CENTER ROOM	15' HOSE PULL TO EXTERIOR PORTIONS OF BUILDING
E	ELEVATOR	300' HOSE PULL AT NON-COMBUSTIBLE SPRINKLER GARAGE - SEE FIRE NOTE 1 UNDER 'ADDITIONAL NOTES', SHEET 1 OUT OF HOSE PULL ACCESS
CLK	CLICK 2 ENTER GATE ACCESS	PAINTED RED CURB PER DETAIL AND OCFA GUIDELINES
ROOF	STAIRWAY WITH ROOF ACCESS	KEY SWITCH OR SUB-KEYED KNOX LOCK WITH 3-SETS OF KEYS
15'	BUILDING IDENTIFICATION LOCATIONS - 6" MIN. TALL LETTERING - APPROXIMATE LOCATION SHOWN - SEE SIGNAGE PACKAGE FOR FINAL DESIGN	INDICATES ILLUSTRATION VIEW NUMBER AND DIRECTION - SEE ILLUSTRATIONS ON SHEET MP-040
EXIST FH	EXISTING PUBLIC FIRE HYDRANT	INDICATES PAVED FIRE ACCESS
PROP PUB FH	PROPOSED PUBLIC FIRE HYDRANT CHROME OR BRASS FINISH	INDICATES PAVED FIRE ACCESS ON DECK OF PARKING STRUCTURE
PROP PRIV FH	PROPOSED PRIVATE FIRE HYDRANT CHROME OR BRASS FINISH	
SP	WET STAND PIPE	



- CONSTRUCTION NOTES**
1. INSTALL FIRE LANE ENTRY SIGN PER DETAIL ON SHEET 1 AND OCFA GUIDELINES
 2. INSTALL SUB-KEYED KNOX BOX WITH 3-SETS OF KEYS PER OCFA GUIDELINES
 3. INSTALL KNOX KEY SWITCH PER OCFA GUIDELINES
 4. PAINT CURB RED 15' ON EITHER SIDE OF HYDRANT AS SHOWN PER OCFA GUIDELINES

DEVELOPMENT STANDARDS		
Planning Area 36 Inline Business Complex		
Zoning District 5.1 IBC Multi-Use		
General Plan Designation: Urban and Industrial		
SITE SIZE	7.03 ACRES	306,352 SF
SITE COVERAGE		167,782 SF
		54.76%
OFFICE GROSS SQUARE FOOTAGE		448,200 SF
HOTEL GROSS SQUARE FOOTAGE		323,415 SF
RETAIL GROSS SQUARE FOOTAGE		13,665 SF
TOTAL GROSS SQUARE FOOTAGE		785,280 SF
SETBACKS		
MACARTHUR BLVD.	40'-0"	
DOUGLAS	40'-0"	
BUILDING HEIGHT		
OFFICE BUILDING	253'-0"	
HOTEL BUILDING	204'-0"	
LANDSCAPE SUMMARY		
Total Area (Site Size):		
306,352 SF = 7.03 Acres		
Total Landscape Area		
Green Space:	69,789 SF = 1.6 Acres	
Landscapes:	76,550 SF = 1.75 Acres	
Total:	146,339 SF = 3.35 Acres	
Total Landscape Area:		
44.7%		
PARKING SUMMARY		
Parking Structure Exterior Dimensions: Varies as shown on drawings.		
LEVEL	GSF	
	(sq. ft.)	
B1	288,400	
1	68,100	
2	68,100	
3	68,100	
4	68,100	
5	68,100	
Stalls - Total	5	88,100
TOTAL BUILDING	728,900	
1. GSF (Gross Square Footage) = Area includes mechanical rooms, electrical rooms, elevators, storage, storage room, bathrooms, etc.		
Provided Spaces		
	GARAGE	SURFACE
	LOT	TOTAL
Accessible Stalls	34	0
Compact Stalls	12	0
Standard Stalls	714	0
Long Term Stalls	1,307	0
Motorcycle Stalls	2,067	0
Spaces - Total	2,089	2,089
105 Bicycles Required - 110 Provided		
Fuel Efficient/Carpool Stalls: 8% of total = 168 min, stalls provided		
Office - Required Spaces		
Spaces (4 / 1,000 for first 250,000 GSF)	1,000	
Spaces (2 / 1,000 after first 250,000 GSF)	397	
Restaurant / Retail - Required Spaces:		
Spaces (1 / 75 GSF)	183	
Hotel - Required Spaces:		
Spaces (.88 per room)	340	
1. Garage is 6 levels total (1 basement level, 1 on-grade level, 4 above grade levels).		
2. Based on GSF.		
Total Required Spaces:	1,920	
Total Spaces Provided:	2,089	
OFFICE TOWER SUMMARY		
LEVEL	GSF	
(sq. ft.)		
Lobby / Service 01	12,500	
Office 02	16,900	
Office 03	31,700	
Office 04	31,700	
Office 05	31,700	
Office 06	31,700	
Office 07	31,700	
Office 08	31,700	
Office 09	31,700	
Office 10	31,700	
Office 11	31,700	
Office 12	31,700	
Office 13	31,700	
Office 14	31,700	
Office 15	31,700	
Mechanical PH	6,700	
TOTAL BUILDING	448,200	
HOTEL SUMMARY		
LEVEL	GSF	
(sq. ft.)		
Lobby / Meeting 01	50,223	
Amnity / Mtg. 02	34,091	
Guest Room 03	17,601	
Guest Room 04	17,601	
Guest Room 05	17,601	
Guest Room 06	17,601	
Guest Room 07	17,601	
Guest Room 08	17,601	
Guest Room 09	17,601	
Guest Room 10	17,601	
Guest Room 11	17,601	
Guest Room 12	17,601	
Guest Room 13	17,601	
Guest Room 14	17,601	
Guest Room 15	17,601	
G.R. / Mech. 16	8,377	
TOTAL BUILDING	323,415	
COMMERCIAL RETAIL		
LEVEL	GSF	
(sq. ft.)		
Retail/RESTAURANT 01	13,665	
1. GSF (Gross Square Footage) = Includes: Area taken from interior face of exterior walls.		



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04	01/27/17	SUBMISSION No. 5

MASTER PLAN SUBMITTAL

Case # : 00659728-PMPC

JANUARY 27, 2017

DRAWING TITLE

HOTEL, OFFICE, PARKING
GROUND LEVEL FLOOR PLANS

DRAWN

CHECKED

SCALE

PROJECT NO.

1" = 40'

PCF-1514

DATE

REV.

12/1/16

DRAWING NO.

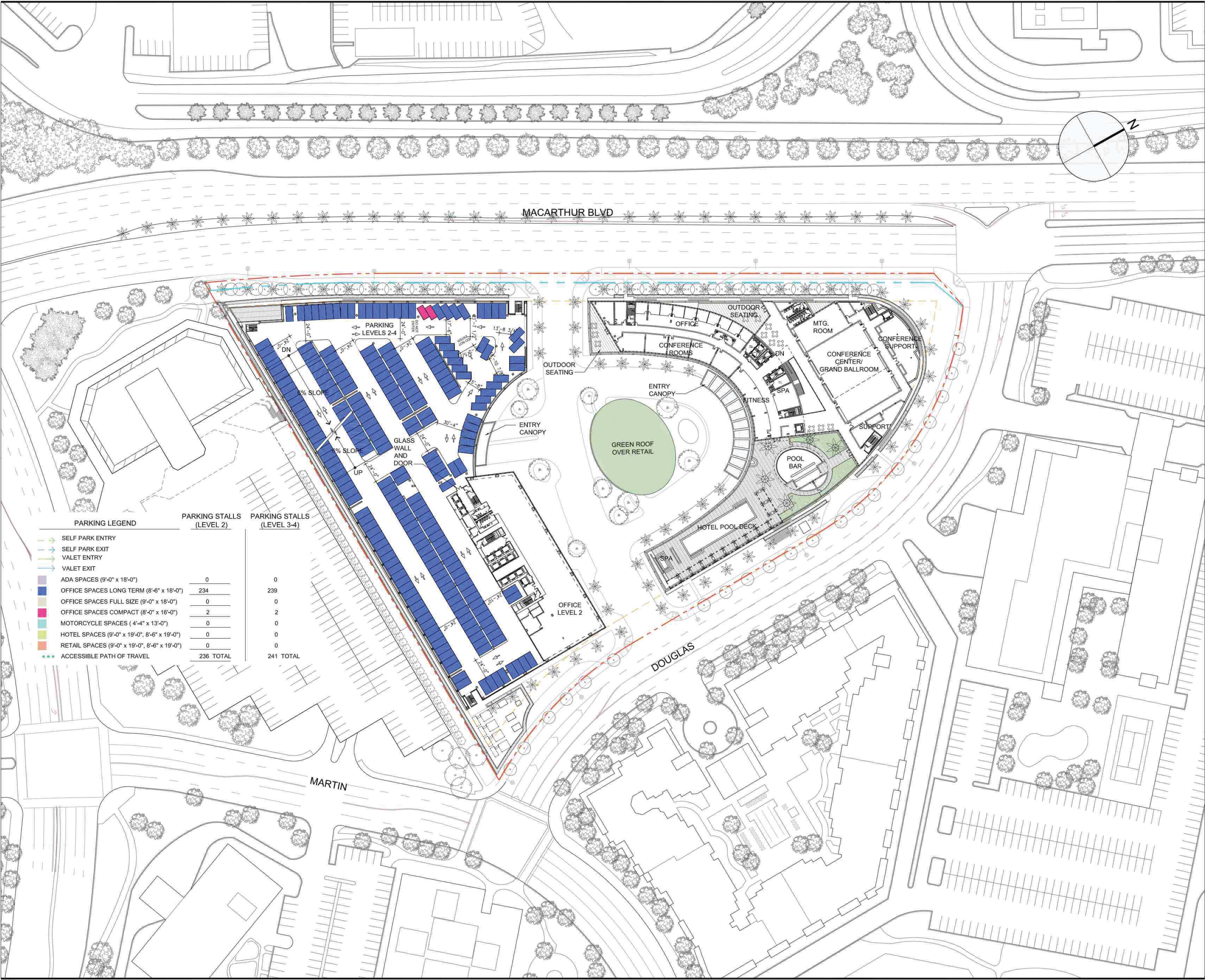
MP-101

LEGEND

PROPERTY LINE
EASEMENT
ROADWAY CENTERLINE
BUILDING SETBACK LINE
ACCESSIBLE PATH OF TRAVEL
STREETLIGHT

NOTE: ALL DRIVEWAY ENTRANCES ARE CURB RETURNS

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PARKING LEGEND

- SELF PARK ENTRY
- SELF PARK EXIT
- VALET ENTRY
- VALET EXIT
- ADA SPACES (9'-0" x 18'-0")
- OFFICE SPACES LONG TERM (8'-6" x 18'-0")
- OFFICE SPACES FULL SIZE (9'-0" x 18'-0")
- OFFICE SPACES COMPACT (8'-0" x 16'-0")
- MOTORCYCLE SPACES (4'-4" x 13'-0")
- HOTEL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")
- RETAIL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")
- ACCESSIBLE PATH OF TRAVEL

PARKING STALLS (LEVEL 2)

0
234
0
2
0
0
0
0
236 TOTAL

PARKING STALLS (LEVEL 3-4)

0
239
0
2
0
0
0
0
241 TOTAL

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MASTER PLAN SUBMITTAL

Case #: 00659728-PMPC

JANUARY 27, 2017

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HOTEL AND OFFICE LEVEL 2
PARKING LEVELS 2-4
FLOOR PLANS

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SCALE PROJECT NO.

1" = 40' PCF-1514

DATE REV.

12/1/16

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MP-102

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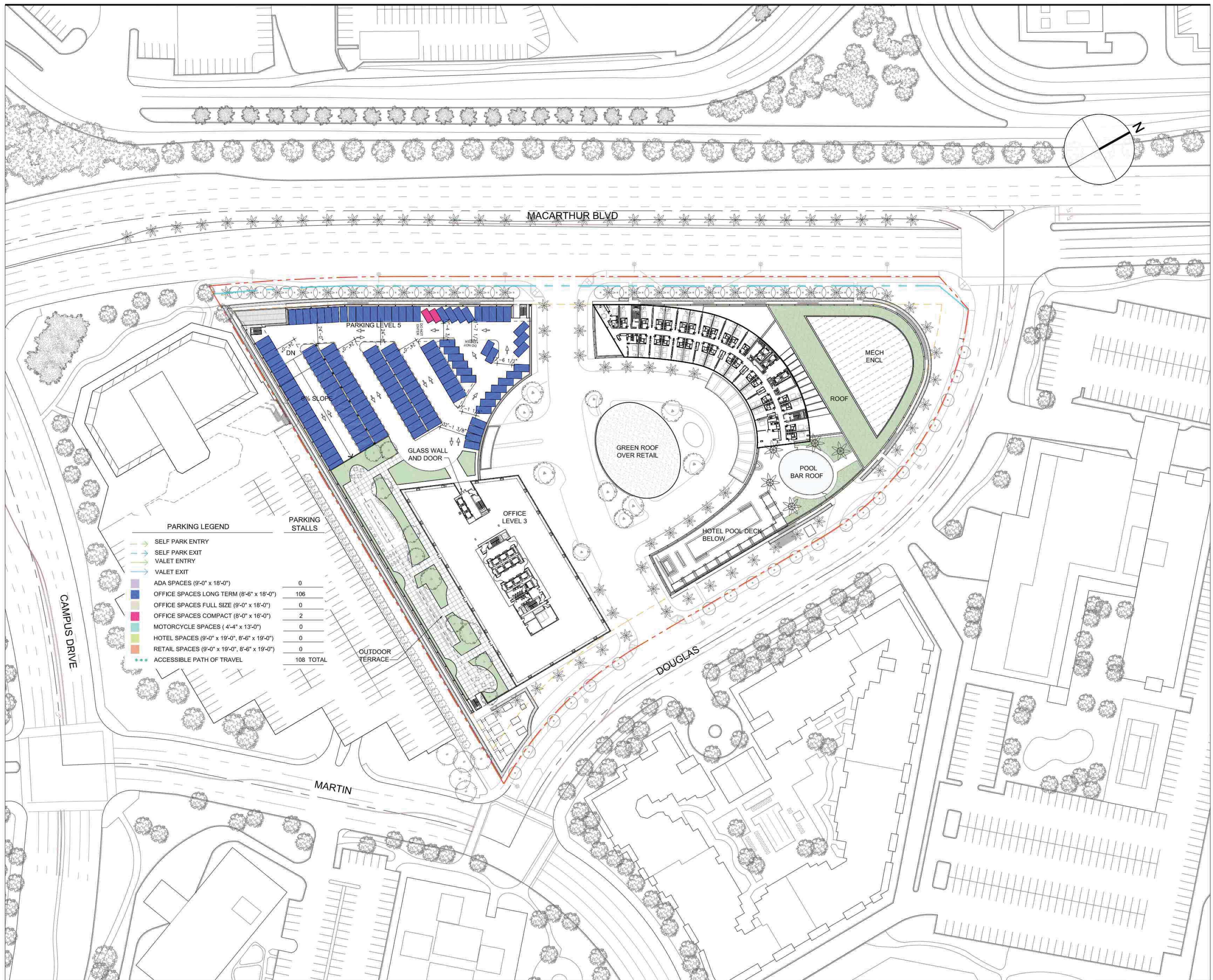
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Case #: 00659728-PMPC
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**HOTEL AND OFFICE LEVEL 3
PARKING LEVEL 5
FLOOR PLANS**

DRAWING NO.**MP-103**

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MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

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HOTEL AND OFFICE TYPICAL LOWER LEVEL FLOOR PLANS

$$1'' = 40'$$

12/1/16

MP-104

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01	12/01/16	SUBMISS
02	01/27/17	SUBMISS

MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

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HOTEL AND OFFICE PENTHOUSE AND UPPER LEVEL FLOOR PLANS

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1" = 40'	PCF-1514
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12/1/16	

DRAWING NO.

MP-105

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No.	Date	Revision
00	05/12/16	SUBMISSION No. 3
01	12/01/16	SUBMISSION No. 4
02	01/27/17	SUBMISSION No. 5

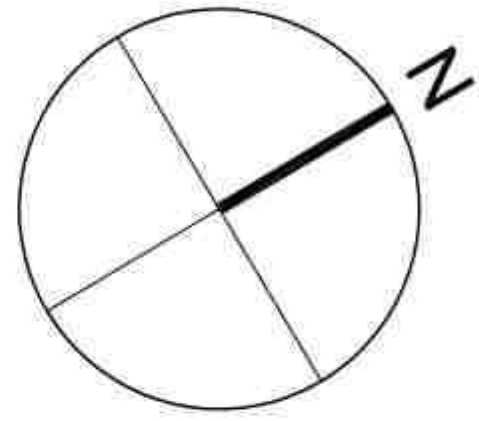
MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

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**PARKING BASEMENT
LEVEL 1 PLAN**

DRAWN	CHECKED
SCALE	PROJECT NO.
1" = 40'	PCF-1514
DATE	REV.
12/1/16	

DRAWING NO.
MP-106
PEI COBB FREED & PARTNERS
Architects LLP



PARKING LEGEND	
SELF PARK ENTRY	
SELF PARK EXIT	
VALET ENTRY	
VALET EXIT	
ADA SPACES (9'-0" x 18'-0")	23
OFFICE SPACES LONG TERM (8'-6" x 18'-0")	224
OFFICE SPACES FULL SIZE (9'-0" x 18'-0")	0
OFFICE SPACES COMPACT (8'-0" x 16'-0")	2
MOTORCYCLE SPACES (4'-4" x 13'-0")	0
HOTEL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")	153
RETAIL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")	90
ACCESSIBLE PATH OF TRAVEL	492 TOTAL

LEVEL B1



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No.	Date	Revision
00	05/12/16	SUBMISSION No. 3
01	12/01/16	SUBMISSION No. 4
02	01/27/17	SUBMISSION No. 5

MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

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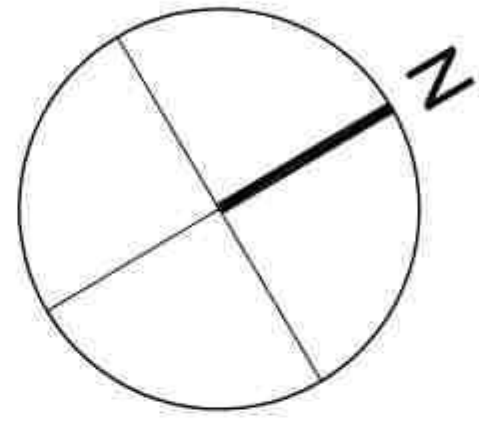
**PARKING BASEMENT
LEVEL 2 PLAN**

DRAWN	CHECKED
SCALE	PROJECT NO.
1" = 40'	PCF-1514
DATE	REV.
12/1/16	

DRAWING NO.

MP-107

PEI COBB FREED & PARTNERS
Architects LLP



PARKING LEGEND	
SELF PARK ENTRY	
SELF PARK EXIT	
VALET ENTRY	
VALET EXIT	
ADA SPACES (9'-0" x 18'-0")	0
OFFICE SPACES LONG TERM (8'-6" x 18'-0")	277
OFFICE SPACES FULL SIZE (9'-0" x 18'-0")	0
OFFICE SPACES COMPACT (8'-0" x 16'-0")	2
MOTORCYCLE SPACES (4'-4" x 13'-0")	0
HOTEL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")	196
RETAIL SPACES (9'-0" x 19'-0", 8'-6" x 19'-0")	93
ACCESSIBLE PATH OF TRAVEL	568 TOTAL

PARKING SUMMARY	
B2	568 (24 TANDEM / VALET ONLY)
B1	492 (14 TANDEM / VALET ONLY)
GROUND	203
SECOND	236
THIRD	241
FOURTH	241
TOP	108
TOTAL	2,089
NOT INCLUDED IN COUNT	
-BICYCLE	
-AUXILIARY SPACES FOR TOWERS	
-REFINED TOWERS STRUCTURE	
-LATERAL STRUCTURE FOR SHORT SPAN PARKING	



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No. Date Revision

00	01/06/16	INITIAL SUBMISSION
01	03/08/16	SUBMISSION No. 2
02	05/12/16	SUBMISSION No. 3
03	12/01/16	SUBMISSION No. 4
04	01/27/17	SUBMISSION No. 5

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Case #: 00659728-PMPC

JANUARY 27, 2017

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BUILDING
ELEVATIONS

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SCALE PROJECT NO.

1/32"=1'-0" PCF-1514

DATE REV.

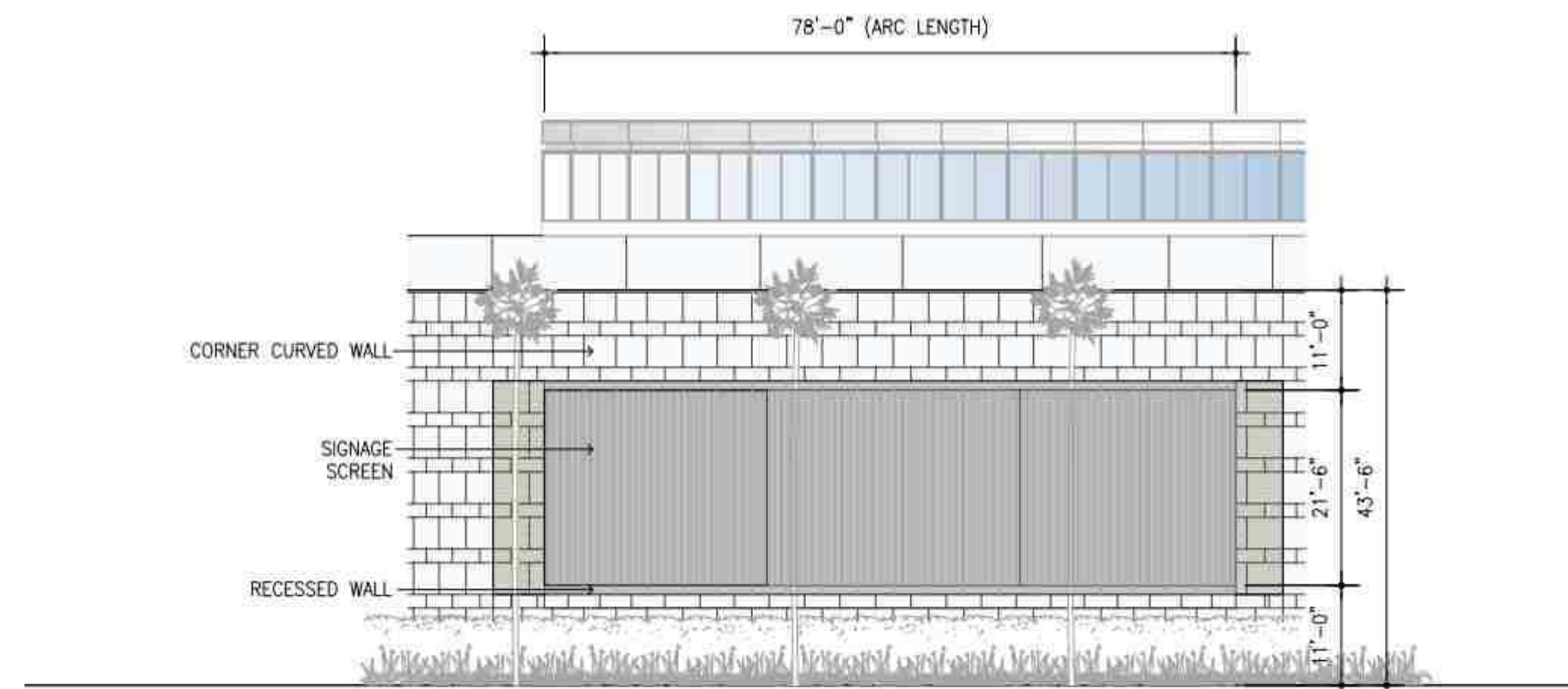
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MP-120

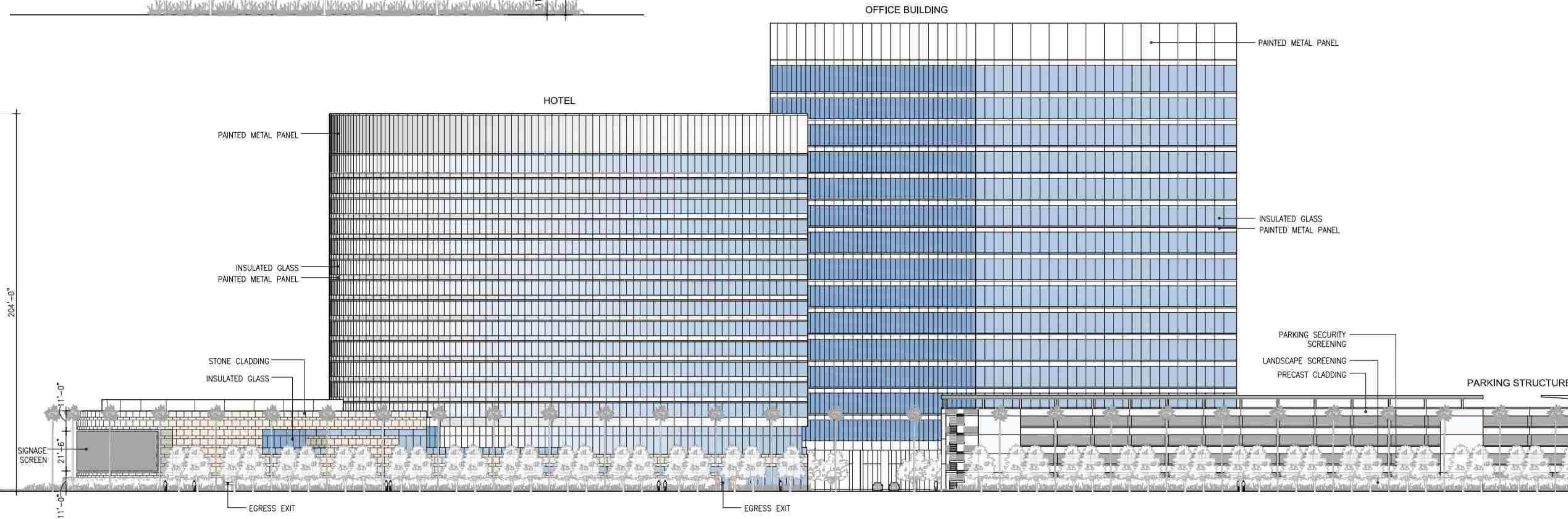
PEI COBB FREED & PARTNERS

Architects LLP



Top of Hotel	204'-0"
Hotel Mech.	184'-0"
H15	172'-0"
H14	161'-0"
H13	150'-0"
H12	139'-0"
H11	128'-0"
H10	117'-0"
H9	106'-0"
H8	95'-0"
H7	84'-0"
H6	73'-0"
H5	62'-0"
H4	51'-0"
H3	40'-0"
H2	20'-0"
Level 1	0'-0"
Basement 1	-15'-0"
Basement 2	-25'-2"

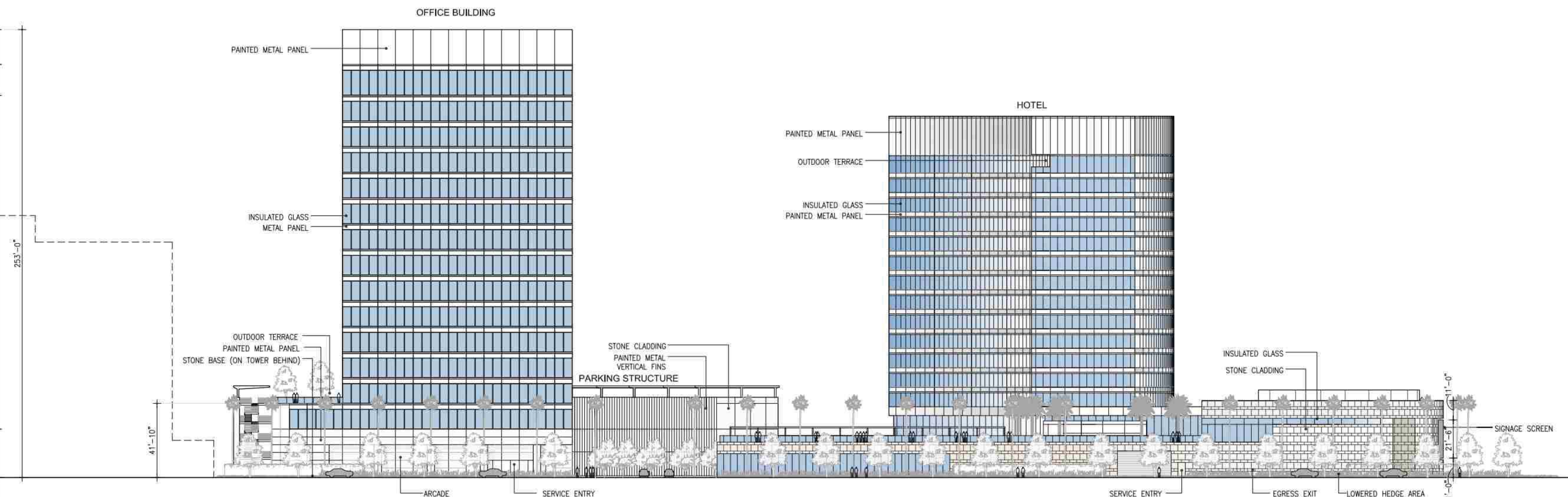
1 MACARTHUR ELEVATION
X-XXX 1/32"=1'-0"
REF



Top of Office Tower	253'-0"
Office Mech.	233'-4"
O15	215'-10"
O14	201'-4"
O13	186'-10"
O12	172'-4"
O11	157'-10"
O10	143'-4"
O9	128'-10"
O8	114'-4"
O7	99'-10"
O6	85'-4"
O5	70'-10"
O4	56'-4"
O3	41'-10"
O2	27'-4"
Level 1	0'-0"
Basement 1	-15'-0"
Basement 2	-25'-2"

Top of Office Tower	253'-0"
Office Mech.	233'-4"
O15	215'-10"
O14	201'-4"
O13	186'-10"
O12	172'-4"
O11	157'-10"
O10	143'-4"
O9	128'-10"
O8	114'-4"
O7	99'-10"
O6	85'-4"
O5	70'-10"
O4	56'-4"
O3	41'-10"
O2	27'-4"
Level 1	0'-0"
Basement 1	-15'-0"
Basement 2	-25'-2"

2 DOUGLAS ELEVATION
X-XXX 1/32"=1'-0"
REF



Top of Hotel	204'-0"
Hotel Mech.	184'-0"
H15	172'-0"
H14	161'-0"
H13	150'-0"
H12	139'-0"
H11	128'-0"
H10	117'-0"
H9	106'-0"
H8	95'-0"
H7	84'-0"
H6	73'-0"
H5	62'-0"
H4	51'-0"
H3	40'-0"
H2	20'-0"
Level 1	0'-0"
Basement 1	-15'-0"
Basement 2	-25'-2"

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JANUARY 27, 2017

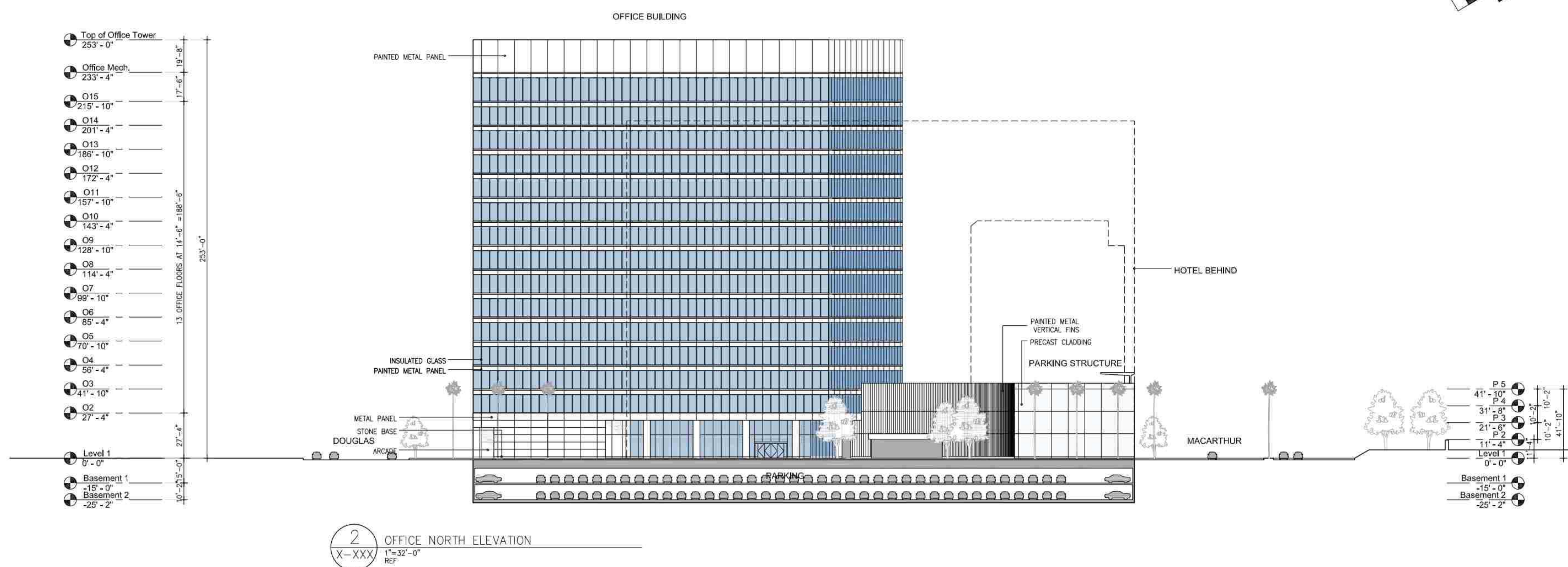
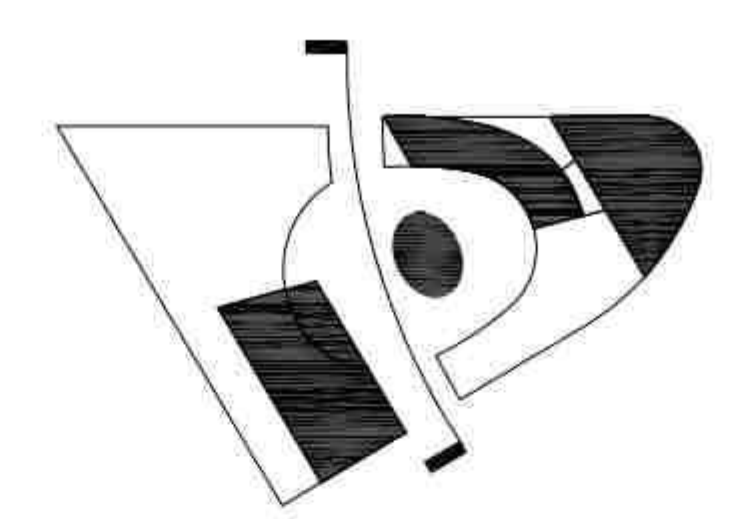
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BUILDING ELEVATIONS

DRAWING NO.

MP-121

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MASTER PLAN SUBMITTAL
Case # : 00659728-PMPC
JANUARY 27, 2017

100

SITE SECTION

SCALE PROJECT NO.

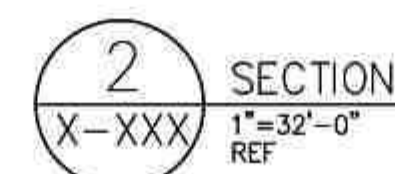
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MD 100**MD 100**

MP-122

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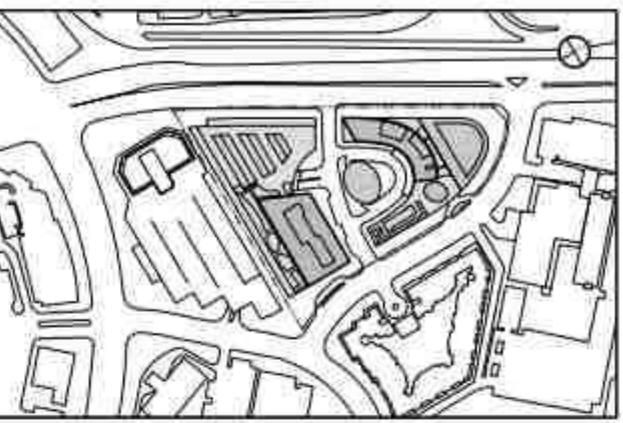
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**THE LANDMARK
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MASTER PLAN SUBMITTAL

Case #: 00659728-PMPC
JANUARY 27, 2017

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PERSPECTIVE VIEWS

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SCALE	PROJECT NO.
DATE	REV.
12/1/16	1

DRAWING NO.

MP-131

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FRESNO
PALM SPRINGS
PT. RICHMOND

RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

November 29, 2016

Ms. Stephanie Frady
Community Development Department
City of Irvine
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575

Subject: 18872, 18912, and 18952 MacArthur Boulevard (The Landmark) Mixed-Use Project
(Case File No. 00659728-PMPC): Hotel Parking Study

Dear Ms. Frady:

LSA Associates, Inc. (LSA) has prepared the following hotel parking study for The Landmark Project at 18872, 18912, and 18952 MacArthur Boulevard in the Irvine Business Complex (IBC) area of the City of Irvine (City). The proposed mixed-use project consists of a 386-room hotel, 448,200 square feet (sf) of office use, and 16,545 sf of restaurant use.

Based on City comments on the Master Plan for the proposed project, a parking study is required. Zoning Ordinance Section 4-3-4 states that for any use for which there is not an established parking generation rate, a parking study shall be required. Because Zoning Ordinance Section 4-3-4 does not include a parking generation rate for hotels, a parking study is necessary to assess the proposed number of hotel parking spaces to be provided on site.

It should be noted that the 448,200 sf of office use and 16,545 sf of restaurant use proposed on site will be parked per Zoning Ordinance requirements (i.e., 1 space per 250 sf of office use up to 250,000 sf, 1 space per 500 sf of office use greater than 250,000 sf, and 1 space per 75 sf of restaurant use). As such, 1,397 spaces will be provided for the 448,200 sf of office use (i.e., 1,000 spaces for 250,000 sf and 397 spaces for 198,200 sf) and 221 spaces will be provided for the 16,545 sf of restaurant use. A total parking supply of 2,089 spaces is proposed on site for the office, restaurant, and hotel uses.

Per discussions with City staff, the approved parking rate for a similar hotel may be applied to the proposed hotel if a suitable match is identified. Based on LSA's research of parking studies that have been processed and approved by the City, the Irvine Spectrum Marriott Hotel was identified as a hotel product similar to the proposed hotel. The 209,817 sf, 14-story Irvine Spectrum Marriott Hotel includes 252 rooms, 7,691 sf of meeting space, and 4,687 sf of retail/restaurant amenities. The 12,378 sf of accessory (meeting and retail/restaurant) space is approximately 6 percent of the total hotel square footage. The approved parking rate for the Irvine Spectrum Marriott Hotel is 0.88 space per room. The approved Irvine Spectrum Marriott Hotel Parking Analysis (Case No. 00632547-PMPC) (Pirzadeh & Associates, Inc., July 27, 2015) is provided as an attachment to this parking study.

The proposed hotel is a 323,415 sf, 14-story, 386-room hotel. The hotel will be located on the northerly portion of the project site, directly south of the intersection of MacArthur Boulevard/Douglas. The proposed hotel will include approximately 21,445 sf of meeting/conference space (8,127 sf on the ground level and 13,318 sf on the second level) and 5,043 sf of restaurant/bar area on the ground level, and 2,631

11/29/16 «P:\GFE1501\doc\Hotel Parking Study3.docx»

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PC ATTACHMENT 4

sf of fitness/spa area on the second level. The 29,119 sf of accessory (meeting/conference, retail/restaurant, and fitness/spa) space is approximately 9 percent of the total hotel square footage. The meeting/conference space, restaurant/bar area, and fitness/spa area will facilitate business meetings and provide amenities and services for hotel guests. It is anticipated that the majority of guests staying at the hotel will be travelers conducting business in the IBC area. The site is conveniently located within walking distance of the John Wayne Airport, office complexes, and corporate headquarters.

The proposed hotel will have 340 parking spaces within the 2,089-space parking structure that will also serve the proposed office use (1,397 required spaces) and restaurant use (221 required spaces). The hotel parking supply equates to 0.88 space per room, consistent with the approved Irvine Spectrum Marriott Hotel. Parking at the proposed hotel will be by valet service only. All overnight hotel guests will have to utilize valet service to park their vehicles. This will eliminate potential vehicle conflicts with self-park patrons of the proposed office and restaurant uses. The valet pick-up/drop-off area is adjacent to the main entry of the hotel. A single 24-foot-wide lane provides one-way, counterclockwise circulation, which will allow hotel guests and visitors to pull into the valet area without impacting internal circulation. The valet pick-up/drop-off area will provide approximately 300 ft of vehicle stacking distance.

The valet service will operate consistent with Zoning Ordinance Section 4-8-1 (Valet Parking Operation Standards). Valet service will allow for stacked parking spaces to be accommodated on site without encroaching into any required fire lanes. Stacked spaces are not included in the on-site parking supply since they are not recognized in the Zoning Ordinance; however they can be utilized through controlled valet operations. Implementation of valet service will allow for parking management practices that increase parking capacity and efficiency when compared to self-park arrangements.

A hotel shuttle will provide transportation for guests to and from John Wayne Airport. Orange County Transit Authority (OCTA) transit facilities are located within one city block and Irvine Shuttle (iShuttle) stops are located within two city blocks of the project site. Bus stops at the northwest and southeast corners of MacArthur Boulevard/Campus Drive and northeast and southeast corners of Martin/Campus Drive are accessible via existing pedestrian sidewalks along the project frontage and the crosswalks at the adjacent signalized intersections. The project site is located less than 5 miles from the Tustin Metrolink Station, which provides access to regional rail service via Metrolink and Amtrak. In addition, hotel guests may use private taxis and informal taxi services such as Uber and Lyft to get to and from the hotel. These various forms of transportation could decrease the hotel parking demand.

The project applicant will explore the possibility of utilizing spaces at adjacent sites that have surplus parking spaces in order to secure overflow parking for rare occasions when the hotel parking demand is anticipated to exceed the on-site parking supply. These special events are not typical of the proposed hotel operations as advanced planning is required. The hotel operator will track occupancies/vacancies and schedule reservations/cancellations. As a result, the hotel operator will be able to manage both typical day-to-day operations and special events to ensure adequate parking will be provided at all times.

The goal of a hotel is to be 100 percent occupied. However, as noted in the 2015 CBRE Hotels Statistics and Trends of Rooms in Orange County table (attached), on average, a hotel in the vicinity of the John Wayne Airport is approximately 80 percent occupied between the months of January and November. In December, the occupancy decreases to below 72 percent. As such, on a typical day, the hotel rooms and parking spaces will be at least 20 percent vacant.

As previously described, the Irvine Spectrum Marriott Hotel has an approved parking rate of 0.88 space per room. Based on surveyed data, parking demand studies conducted and approved for hotels within the City, and other parking documents such as the Institute of Transportation Engineers (ITE) Parking

Generation and the CBRE Hotels Statistics and Trends of Rooms in Orange County, the parking demand for this type of hotel is less than 1 space per room. Valet service and stacked parking could increase parking capacity and efficiency within the parking structure. In addition, the forecast hotel parking demand could be reduced with implementation of shuttle service and utilization of existing transit and alternative transportation. Therefore, the proposed parking rate of 0.88 space per room, or 340 parking spaces, is adequate for the proposed hotel parking demand.

Furthermore, a shared parking analysis consistent with the methodology presented in the Urban Land Institute (ULI) Shared Parking, 2nd Edition (2005) was conducted to determine whether the proposed parking supply of 2,089 spaces is adequate for the project. The parking demand for the hotel is based on the approved 0.88 space per room rate for the Irvine Spectrum Marriott Hotel. The Zoning Ordinance parking rates of 1 space per 250 sf of office use up to 250,000 sf, 1 space per 500 sf of office use greater than 250,000 sf, and 1 space per 75 sf of restaurant use have been used. The hourly parking utilization for each use is based on the ULI Shared Parking. The results of the shared parking analysis are shown in Table A (attached).

As shown Table A, the peak parking demand would be 1,745 spaces with a parking surplus of 344 spaces at 2:00 p.m. During this time, the hotel spaces are 60 percent utilized (204 spaces), the office spaces are 100 percent utilized (1,397 spaces), and the restaurant spaces are 65 percent utilized (144 spaces). With a 2,089-space parking structure serving the proposed project, adequate parking will be provided on site for the hotel, office, and restaurant uses.

If you have any questions, please call me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.



Dean Arizabal
Associate

Attachments: Table A: Shared Parking Analysis
Irvine Spectrum Marriott Hotel Parking Analysis (Case No. 00632547-PMPC)
2015 CBRE Hotels Statistics and Trends of Rooms in Orange County Table

cc: Sean Cao, Great Far East

Table A: Weekday Shared Parking Analysis

Time	Business Hotel ^{1,2}		Office (up to 250,000 SF) ¹		Office (greater than 250,000 SF) ¹		Fine/Casual Dining Restaurant ¹		Total SF ³ :
	size =	386 rooms	size =	250,000 SF	size =	199,900 SF	size =	16,545 SF	466,445
	0.88 space/	1 room	1 space/	250 SF	1 space/	500 SF	1 space/	75 SF	
	demand =	340 spaces	demand =	1,000 spaces	demand =	400 spaces	demand =	221 spaces	
	% utilization	spaces	% utilization	spaces	% utilization	spaces	% utilization	spaces	Utilized
6:00 AM	95%	323	3%	30	3%	12	0%	0	365
7:00 AM	90%	306	30%	300	30%	120	0%	0	726
8:00 AM	80%	272	75%	750	75%	300	0%	0	1,322
9:00 AM	70%	238	95%	950	95%	380	0%	0	1,568
10:00 AM	60%	204	100%	1,000	100%	400	15%	34	1,638
11:00 AM	60%	204	100%	1,000	100%	400	40%	89	1,693
12:00 PM	55%	187	90%	900	90%	360	75%	166	1,613
1:00 PM	55%	187	90%	900	90%	360	75%	166	1,613
2:00 PM	60%	204	100%	1,000	100%	400	65%	144	1,748
3:00 PM	60%	204	100%	1,000	100%	400	40%	89	1,693
4:00 PM	65%	221	90%	900	90%	360	50%	111	1,592
5:00 PM	70%	238	50%	500	50%	200	75%	166	1,104
6:00 PM	75%	255	25%	250	25%	100	95%	210	815
7:00 PM	75%	255	10%	100	10%	40	100%	221	616
8:00 PM	80%	272	7%	70	7%	28	100%	221	591
9:00 PM	85%	289	3%	30	3%	12	100%	221	552
10:00 PM	95%	323	1%	10	1%	4	95%	210	547
Peak Parking Demand									1,748
Proposed Parking Supply									2,089
Parking Surplus / (Deficit)									341

Notes:

¹ Parking demand is based on the City's parking rates and parking utilization is based on the ULI Shared Parking, 2nd Edition.² Proposed parking rate of 0.88 space per room (consistent with the approved Irvine Spectrum Marriott Hotel).³ Total square footage does not include the hotel(s).

SF = square feet

July 27, 2015

Mr. Joel Belding
Principal Planner
City of Irvine
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575

Subject: Irvine Spectrum Marriott Hotel, Spectrum 1 (Planning Area 33)
Parking Analysis - Second Submittal, Case No. 00632547-PMPC

Dear Mr. Belding:

Pursuant to your request, this technical letter is intended to address the parking demand at the subject hotel in Irvine Spectrum Center.

Proposed Project

The proposed project is a new 209,817 square foot, 252-room, 14-story Marriott Hotel. The project will be located on the northerly portion of Lot 104 in Planning Area 33, Irvine Spectrum Center (Spectrum 1) – Parcel 2 of PM 2012-161. The proposed hotel will include 12,378 square feet of accessory meeting facility and other accessory guest amenities. It is anticipated that the guests staying at the hotel will be mostly business travelers conducting business in the Irvine Spectrum area. The site is conveniently located within walking distance of Irvine Spectrum Center and many offices and corporate headquarters (i.e., Mazda and Taco Bell Corporate Headquarters) which are directly across the street on Gateway.

The accessory meeting rooms (7,691 square feet) and guest retail/café amenities (4,687 square feet), that comprise approximately six (6) percent of the hotel's total square footage, will facilitate business meetings and provide services for the hotel guests. Hotel shuttles will be available for transporting guests to and from John Wayne Airport, Irvine Multimodal Station and other major venues. Additionally, existing OCTA Transit and Spectrum Shuttle services will be available to the hotel guests and employees. Bus stops for these services are located on Irvine Center Drive and Alton Parkway within very short walking distance from the site. The bus stop at the northeast corner of Irvine Center Drive and Gateway is located approximately 250-feet from the hotel site and can be accessed using the on-site sidewalk system that connects to the public sidewalk network. The intersection of Irvine Center Drive and Gateway is signalized and has existing pedestrian crosswalks.

Site Parking

Parking at the site is by valet service only. All guests and visitors to the site will have to valet their vehicles. The proposed hotel will have 223 marked parking spaces (150 standard spaces, 66 tandem spaces, 7 accessible spaces). As stated earlier, all on site parking will be handled by valet service. This type of parking operation will allow for implementing parking management practices which would increase parking capacity in excess of marked spaces by at least 30 additional spots. The marked supply of parking would equate to 0.88 spaces per room ratio which is at the high end of industry standard and documented parking demand rate for this type of hotel.

The valet operation is consistent with the requirements of Section 4-8-1 of the Zoning Code that pertains to valet operation standards. The proposed Marriott Hotel will be 100-percent valet parking and will utilize four (4) parking control gates to be used by employees only. All guests will arrive at the main entry off Gateway and then the valet attendants will park and recall the vehicles as needed. Hotel guest and visitors will not have access to the on-site circulation or parking spaces beyond the gate locations.

The valet operation loading area is adjacent to the main entry to the hotel. Hotel guests and visitors will access the staging area via Gateway at Driveway 2. The approach to the staging area is one-way operation that will flow counterclockwise. There are three (3) lanes in the arrival area that will provide in excess of 350-feet of stacking area. None of the valet parking spaces encroach into the required fire lane.

Based on data presented in several Parking Demand Studies conducted for hotels in Irvine which have been reviewed and approved by the City the typical parking demand for this type of facility is well below one (1) space per room. The documented rate varies from 0.5 to 1 space per room with an average rate of about 0.65 spaces per room. Additionally, when shuttle services and other modes of travel are available for hotel guests the parking demand is further reduced by at least 10 percent. Data presented in the 4th Edition of Parking Generation published by Institute of Transportation Engineers (ITE) shows the average peak period parking demand to be 0.66 vehicles (spaces) per occupied room. Applying the typical 10 percent reduction for availability of shuttle services this peak demand would be reduced to 0.59 spaces per occupied room. Therefore, the proposed hotel with 252 rooms is expected to generate a demand of about 149 parking spaces which is much lower than the proposed 223 marked spaces. Furthermore, the valet operation will easily increase the parking supply to over 1 space per room.

Marriot Corporation has not established a parking rate for this type of facility. However, the typical rate for its sites is around 0.8 spaces per room. The proposed hotel's 0.88 spaces per room will exceed this typical parking rate.

Mr. Joel Belding

Page 3

July 27, 2015

Conclusions

Based on data presented in several parking demand studies for similar facilities in the City of Irvine and data presented in the ITE Parking Generation manual, the proposed 252 room hotel with 223 marked parking spaces will have more than adequate parking to accommodate the expected demand for this facility. The valet service and the availability of shuttle and transit services at this site and the close proximity of the hotel to businesses, shopping and entertainment venues will further reduce the anticipated parking demand at this facility.

Please call me if you have any questions regarding the proposed hotel or the information presented in this letter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter K. Pirzadeh', written in a cursive style.

Peter K. Pirzadeh, P.E.
Principal

Copy via email: Stacy Tran, City of Irvine
 Anthony Wrzosek, RDOD

Statistics And Trends Of Rooms Business In Orange County

CBRE Hotels

<u>BY LOCATION</u>	<u>AVERAGE DAILY RATE</u>			<u>OCCUPANCY PERCENT</u>			<u>REVPAR</u>		
	2015	2014	VAR	2015	2014	VAR	2015	2014	VAR
MONTH OF DECEMBER 2015									
ANAHEIM	\$181.52	\$173.41	4.7%	79.74%	79.45%	0.4%	\$144.75	\$137.78	5.1%
COSTA MESA	\$125.88	\$117.70	6.9%	70.65%	73.55%	-3.9%	\$88.93	\$86.57	2.7%
ORANGE COUNTY AIRPORT	\$119.78	\$116.77	2.6%	71.50%	68.22%	4.8%	\$85.63	\$79.67	7.5%
NORTH ORANGE COUNTY	\$104.36	\$97.91	6.6%	76.67%	78.23%	-2.0%	\$80.02	\$76.59	4.5%
SOUTH ORANGE COUNTY	\$201.70	\$193.79	4.1%	61.14%	64.33%	-5.0%	\$123.31	\$124.67	-1.1%
NEWPORT BEACH	\$229.78	\$229.81	0.0%	67.46%	62.05%	8.7%	\$155.01	\$142.59	8.7%
HUNTINGTON BEACH	\$207.08	\$201.79	2.6%	64.60%	61.36%	5.3%	\$133.78	\$123.81	8.0%
OVERALL AVERAGE	\$167.92	\$161.30	4.1%	73.74%	73.13%	0.8%	\$123.83	\$117.96	5.0%

	<u>AVERAGE DAILY RATE</u>			<u>OCCUPANCY PERCENT</u>			<u>REVPAR</u>		
	2015	2014	VAR	2015	2014	VAR	2015	2014	VAR
JANUARY TO DECEMBER 2015									
ANAHEIM	\$180.75	\$168.85	7.0%	81.27%	79.43%	2.3%	\$146.89	\$134.11	9.5%
COSTA MESA	\$136.89	\$129.12	6.0%	79.73%	81.09%	-1.7%	\$109.14	\$104.70	4.2%
ORANGE COUNTY AIRPORT	\$133.61	\$125.70	6.3%	79.65%	75.47%	5.5%	\$106.42	\$94.87	12.2%
NORTH ORANGE COUNTY	\$109.51	\$101.42	8.0%	82.90%	81.34%	1.9%	\$90.78	\$82.50	10.0%
SOUTH ORANGE COUNTY	\$238.53	\$228.25	4.5%	76.87%	76.18%	0.9%	\$183.36	\$173.87	5.5%
NEWPORT BEACH	\$250.83	\$244.37	2.6%	78.58%	75.57%	4.0%	\$197.10	\$184.67	6.7%
HUNTINGTON BEACH	\$249.01	\$243.73	2.2%	81.96%	81.79%	0.2%	\$204.08	\$199.34	2.4%
OVERALL AVERAGE	\$178.81	\$169.17	5.7%	80.32%	78.37%	2.5%	\$143.61	\$132.58	8.3%

ATTACHMENT 5

THE LANDMARK

Addendum to the IBC Vision Plan and
Mixed Use Overlay Zoning Code EIR

DISTRIBUTED TO THE PLANNING
COMMISSION ONLY

Copy available to review in the
Irvine Community Development Department

Contact Stephanie Frady

at

949-724-6375

or

sfrady@cityofirvine.org

PLANNING COMMISSION RESOLUTION NO. 17-3615

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF IRVINE, CALIFORNIA, APPROVING COMMERCIAL MASTER PLAN 00659728-PMPC TO DEVELOP THE LANDMARK, A 15-STORY, 386-ROOM HOTEL, A 15-STORY OFFICE BUILDING AND GROUND-LEVEL RETAIL/RESTAURANT SPACE, LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX), CONTINGENT ON THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA OVERRULING THE DETERMINATION OF THE AIRPORT LAND USE COMMISSION OF THE COUNTY OF ORANGE THAT THE PROPOSED PROJECT IS NOT CONSISTENT WITH THE 2008 JOHN WAYNE AIRPORT ENVIRONS LAND USE PLAN; FILED BY GREAT FAR EAST LLC

WHEREAS, an application for Commercial Master Plan 00659728-PMPC has been filed by Great Far East LLC to allow for the development of The Landmark, a mixed use commercial development which includes a 15-story, 386-room hotel, a 15-story office building, ground level restaurant/retail space and a combination subterranean garage/parking structure containing 2,089 parking spaces, located at 18872, 18912 and 18952 MacArthur Boulevard in Planning Area 36, the Irvine Business Complex (IBC); and

WHEREAS, the underlying land of the subject Commercial Master Plan has a General Plan land use designation of Urban and Industrial, and a zoning designation of 5.1 Multi-use; and

WHEREAS, the proposed Commercial Master Plan conforms with the City of Irvine General Plan and the Irvine Zoning Ordinance; and

WHEREAS, pursuant to the IBC Database, the project site currently has a budget of 1,122 AM, 1,321 PM and 13,638 average daily trip (ADT) development intensity values (DIVs), which is adequate to support the project, as proposed; and

WHEREAS, an Access Study was completed for the proposed project which analyzed the access points along Douglas and MacArthur Boulevard and potential impacts to the surrounding circulation system; and

WHEREAS, the proposed Commercial Master Plan is considered to be a "project" as defined by the California Environmental Quality Act (CEQA); and

WHEREAS, in July 2010, the IBC Vision Plan Program Environmental Impact Report (SCH No. 2007011024) ("IBC EIR") was prepared and certified by the City Council

PC ATTACHMENT 6

as adequate; and

WHEREAS, on April 20, 2017, the Airport Land Use Commission (ALUC) for Orange County considered the proposed project. When a development project is subject to the Airport Environs Land Use Plan (AELUP) due to its close proximity to John Wayne Airport, State law requires the ALUC to make a determination on whether the proposed land use is consistent with its regulations and restrictions. At their meeting, the ALUC voted unanimously to find the proposed project is inconsistent with the AELUP. As such, the City of Irvine's City Council would need to make a determination to override the ALUC decision prior to the proposed project being approved; and

WHEREAS, due to the inconsistency finding made by the ALUC, the Planning Commission's approval of the subject Commercial Master Plan is contingent on a City Council determination to override the decision of the ALUC pursuant to Section 21676 of the California Public Utilities Code; and

WHEREAS, on May 31, 2017, notice of a Planning Commission public hearing was posted at the project site and at all City-designated posting locations; and were mailed to all property owners and occupants within 500 feet of the project site; and

WHEREAS, the Planning Commission of the City of Irvine has considered information presented by the Community Development Department, the applicant, and other interested parties at a public hearing on June 15, 2017.

NOW, THEREFORE, the Planning Commission of the City of Irvine DOES HEREBY RESOLVE as follows:

SECTION 1. The Recitals above are true and correct and incorporated herein by this reference.

SECTION 2. An Addendum to the IBC EIR has been prepared pursuant to Section 15164 of the CEQA Guidelines, and concluded that the proposed project will not have a significant effect on the environment.

SECTION 3. Pursuant to Section 15162 of the CEQA Guidelines, the following has been determined:

1. There are no substantial changes to the project that will require major revisions to the IBC EIR due to new, significant environmental effects or a substantial increase in the severity of impacts identified in the IBC EIR.
2. Substantial changes have not occurred in the circumstances under which the project is being undertaken that will require major revisions of the IBC EIR to disclose new, significant environmental effects or a substantial increase in the severity of the impacts identified in the IBC EIR.

3. There is no new information of substantial importance, not known and could not have been known with the exercise of reasonable diligence at the time the IBC EIR was certified, that shows any of the following:
 - a. The project will have any new significant effects not discussed in the IBC EIR;
 - b. Significant effects previously examined will be substantially more severe than shown in the IBC EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the IBC EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

SECTION 4. Pursuant to Section 15168 of the CEQA Guidelines, this project is covered by the previously certified IBC EIR (SCH No. 2007011024) and the June 2017 Addendum, which serves as the EIR for the proposed project. The effects of the project were examined in the Program EIR, and all feasible mitigation measures and alternatives developed in the Program EIR are incorporated into this project.

SECTION 5. Pursuant to Fish and Game Code Section 711.4(c), all required Fish and Game filing fees shall be paid subsequent to certification of the Final EIR.

SECTION 6. The findings required by State law regarding justification of Citywide, village-wide, and project specific development fees for public facilities as a result of this project approval have been met as follows:

- A. Citywide fees for public facilities are collected in conjunction with the issuance of building permits for development projects and consist of the following:
 1. Foothill Transportation Corridor Area / San Joaquin Transportation Corridor Area of Benefit Charges.
 2. Development surcharge fees to recover wear and tear costs from construction site traffic.
 3. A systems development charge.
- B. Resolutions have been adopted by the Irvine City Council which establishes the connection between the development projects and the public improvements based on the following nexus:
 1. The area of benefit charges for the Foothill Transportation Corridor Area/San Joaquin Transportation Corridor are based on the assumption that future state and federal revenues are projected to be inadequate to construct said transportation corridors in a timely manner; and that future development

- should pay a share of the cost of implementing new transportation corridors to ensure that the transportation system will be adequate to serve said development and that this share of the corridor costs should be proportional to the traffic generated by the development.
2. The impact of construction vehicles using City streets causes wear and tear which significantly reduces the life of the surface of City streets beyond normally expected use and the cost of impacted wear and tear on City streets should be borne by the development projects which create the impact. The wearing surface on City streets is reduced by 50 percent by commercial/industrial construction traffic which causes significant increases on City maintenance costs.
 3. The implementation of a systems development charge provides a predictable and equitable funding source for capital improvements by requiring development projects to "buy into" the pre-existing City infrastructure so that the impact of new growth on existing improvements will be borne equitably by new development.
- C. All of the Citywide fees identified in this section are based on this project's proportional share of the cost of the improvement as identified in the appropriate City Council resolution.
- D. The following nexus between the project specific public facilities and the development project have been identified:
1. The purposes of the fees have been identified.
 2. There is a reasonable relationship between the need for public facilities and the type of development for which the fee is imposed.
 3. There is a reasonable relationship between the amount of the fees and the costs of the public facilities attributable to the development on which the fee is based.
- E. The development of The Landmark Project creates the need for circulation system improvements to accommodate traffic generated by the project. The public and private facilities identified previously are needed to support this development, are justified since the development of this type impacts the amount distribution of traffic on surrounding streets, or are agreed to by the applicant. The circulation improvements described above have been identified in the April 5, 2017 Access Study prepared by LSA for the proposed project.

SECTION 7. The findings required to be made for the approval of a Commercial Master Plan, as set forth by Section 2-17-7 of the Irvine Zoning Ordinance, are hereby made as follows:

- A. The proposed Master Plan is consistent with the City's General Plan.

The project site is designated for Urban and Industrial development pursuant to the City's General Plan Land Use Element. The Urban and Industrial designation allows for offices, industry, and support commercial, mixed with high-density housing, and a variety of activities. Typical uses are professional/medical offices, industrial manufacturing, research and development, support service retail, restaurants, multifamily housing and hotel/motels. The IBC Element of the General Plan outlines the framework for future development of the IBC as a mixed-use community. The Master Plan proposes the development of a 15-story, 386-room hotel, a 15-story office building and ground level restaurant/retail space, all of which are all compatible with Urban and Industrial neighborhood. Therefore, the proposed Master Plan is consistent with the City's General Plan.

B. The proposed Master Plan is consistent with the City's zoning ordinance.

The subject site has a zoning designation of 5.1 IBC Multi-use, which allows for hotel, office and retail uses. Within the IBC, the overall amount of development allowed is regulated by the development intensity value (DIV) budget assigned to each parcel. For the subject project site, there exists a cumulative DIV budget of 1,122 AM, 1,321 PM and 13,638 daily DIVs. The proposed project requires only 779 AM, 976 PM and 11,180 daily DIVs, which is entirely covered by the site's budget. Therefore, the project conforms to the allowed density for the subject site.

Additionally, the Master Plan meets site size, site coverage, landscape requirements, setbacks and all other applicable requirements of the Irvine Zoning Ordinance. Therefore, it has been determined that the Master Plan is consistent with the Irvine Zoning Ordinance.

C. The proposed Master Plan is in the best interests of the public health, safety and welfare of the community.

The Master Plan provides a mix of commercial uses on the project site, including hotel, office and retail/restaurant. Construction of all improvements and facilities associated with the proposed project will be in accordance with City standards and under City inspection. As stated in Sections 1 and 2 of this resolution, an Addendum to the approved IBC EIR (SCH No. 200071014) was completed for the proposed project and serves as its Program EIR. The Addendum determined that no further environmental impacts would result from the proposed project, and, therefore, it is in compliance with CEQA. It has been determined that the Master Plan is in the best interests of the health, safety, and welfare of the community.

D. The proposed Master Plan complies with all applicable requirements set forth within Division 8 pertaining to the dedication of permanent open space through a phased dedication implementation program for affected planning areas and zoning districts.

The proposed Master Plan complies with all requirements set forth within Section

8-5 of the Irvine Zoning Ordinance in that the permanent open space area (192 acres within Preservation Area N) associated with the development of PA 36 was previously dedicated.

- E. If the proposed Master Plan affects land located within the coastal zone, the proposed Master Plan will comply with the provisions of the land use plan of the certified local coastal program.

The project site is not located in the coastal zone; therefore, this finding is not applicable.

- F. In Planning Area 30, the proposed Master Plan provides for compatibility between existing and future uses within the City of Irvine, to the extent those uses are known.

The project site is not located in Planning Area 30; therefore, this finding is not applicable.

SECTION 8. The findings required to be made for the approval of a Conditional Use Permit for the hotel use, as set forth by Section 2-9-7 of the Irvine Zoning Ordinance, are hereby made as follows:

- A. The proposed location of the conditional use is in accord with the objectives of Chapter 1-1 of the Zoning Ordinance and the purpose of the zoning district in which the site is located.

The project site is located within the 5.1 IBC Multi-use Zone. The location of the proposed hotel is in accord with the objectives of Section 1-1 of the Irvine Zoning Ordinance. The hotel use within the IBC area of the City supplements the regional employment destination by providing accommodations for business travelers, thereby serving existing businesses in the area. It also provides accommodations for visitors to the City and provides event space to serve both businesses and residents.

- B. The proposed conditional use will not be detrimental to the public health, safety or welfare, or be materially injurious to properties or improvements in the vicinity.

This project will add a use already found within the local area and has been designed in a manner to be fully self-contained with services and all required parking located on-site so as to not adversely impact adjacent sites.

- C. The proposed conditional use is compatible with existing uses and future uses to the extent those uses are known, and will comply with each of the applicable provisions of the zoning ordinance, except for approved variances and/or administrative relief per Chapters 2-2 and 2-37.

The proposed hotel will provide temporary lodging in the IBC area and will complement the range of existing adjacent and nearby uses. The project complies with all applicable development standards; there are no variances or administrative relief proposed.

- D. If the proposed conditional use permit affects land located within the coastal zone, the proposed conditional use will comply with the provisions of the land use plan of the certified local coastal program.

The project site is not located in the coastal zone; therefore, this finding is not applicable.

- E. Based upon information available at the time of approval, adequate utilities, access roads, drainage, and other necessary facilities exist or will be provided to serve the proposed use.

The site is fully urbanized and adequately service by wet and dry utilities, roads and emergency access.

SECTION 9. That the Secretary to the Planning Commission of the City of Irvine shall certify to the passage and adoption of this Resolution and enter it into the book of original Resolutions.

NOW, THEREFORE, based on the above findings and contingent on the Irvine City Council approving an override of the ALUC's inconsistency finding, the Planning Commission of the City of Irvine DOES HEREBY APPROVE COMMERCIAL MASTER PLAN 00659728-PMPC, subject to the following conditions:

PRIOR TO THE ISSUANCE OF PRELIMINARY OR PRECISE GRADING PERMITS

Standard Condition 2.5 (modified) ARCHAEOLOGIST/PALEONTOLOGIST RETAINED
(PPP 4-1)

Prior to the issuance of the first preliminary or precise grading permits for each planning area, and for any subsequent permit involving excavation to increased depth, the applicant shall provide letters documenting retention of an archaeologist and a paleontologist for the project. The letters shall state that the applicant has retained these individuals, and that the consultants will be on call during all grading and other significant ground-disturbing activities. These consultants shall be selected from the roll of qualified archaeologists and paleontologists maintained by the County of Orange. The archaeologist and/or paleontologist shall meet with Community Development staff, and shall submit written recommendations specifying procedures for cultural/scientific resource surveillance. These recommendations shall be reviewed and approved by the Director of Community Development prior to issuance of the grading permit and prior to any surface disturbance on the project site.

Should any cultural/scientific resources be discovered, no further grading shall occur in

the area of the discovery until the Director of Community Development is satisfied that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Archaeologist/Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates, and other special studies; submit materials to a museum for permanent curation; and provide a comprehensive final report including catalog with museum numbers. Persons performing this work shall be Orange County Certified Professional Archaeologists/Paleontologists.

Standard Condition 2.6 (modified)

SITE SPECIFIC GEOTECHNICAL STUDY
(PPP 5-3)

In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, detailed geotechnical investigation reports for each Rough Grading Plan shall be submitted to further evaluate faults, subsidence, slope stability, settlement, foundations, grading constraints, liquefaction potential, issues related to shallow groundwater, and other soil engineering design conditions and provide site specific recommendations to mitigate these issues/hazards. The geotechnical reports shall be prepared and signed/stamped by a Registered Civil Engineer specializing in geotechnical engineering and a Certified Engineering Geologist. The City of Irvine Geotechnical Engineer/Engineering Geologist shall review the rough grading plan to ensure conformance with recommendations contained in the reports.

Standard Condition 2.7

GROUNDWATER SURVEY
(PPP 7-2)

Prior to the issuance of precise grading permits, the applicant shall submit to the Chief Building Official a groundwater survey of the entire site. The analysis shall be prepared by a licensed geotechnical engineer versed in groundwater analysis and shall include the following information and analysis:

- a. Potential for perched groundwater intrusion into the shallow groundwater zone upon build-out.
- b. Analysis for relief of groundwater buildup and properties of soil materials on-site.
- c. Impact of groundwater potential on building and structural foundations.
- d. Proposed mitigation to avoid potential for groundwater intrusion within five (5) feet of the bottom of the footings.

Standard Condition 2.12

WATER QUALITY – NOTICE OF INTENT
(PPP 7-3)

Prior to the issuance of preliminary or precise grading permits for a project that will result in soil disturbance of one (1) or more acres of land, the applicant shall provide the Chief Building Official with evidence that a Notice of Intent (NOI) has been filed with the State Water Resources Control Board. Such evidence shall consist of a copy of the NOI stamped by the State Water Resources Control Board or the Regional Water Quality Control Board, or a letter from either agency stating that the NOI has been filed.

Standard Condition 2.13

WATER QUALITY MANAGEMENT PLAN
(PPP 7-4)

Prior to the issuance of precise grading permits, the applicant shall submit to the Chief Building Official for review and approval, a Water Quality Management Plan (WQMP). The WQMP shall identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff.

Standard Condition 2.24

DEMOLITION WASTE RECYCLING

Prior to the issuance of grading permits for a project that involves the demolition of an asphalt or concrete parking lot on site, the applicant shall submit a waste management plan demonstrating compliance with the requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers.

Standard Condition 2.25

DIGITAL FILES - AUTOCAD

Prior to the issuance of a grading permit, the design engineer shall submit the drawings in DXF or AutoCAD .dwg file to the City.

Condition 2.26

OCFA PLANS
(PPP 6-3)

Prior to Orange County Fire Authority (OCFA) issuance of a precise grading permit, the applicant shall submit a Fire Master Plan (Service Code PR145) for review and approval. Irrevocable reciprocal access easements for emergency access purposes to the benefit of the City/County shall be recorded concurrently with the final map or, where no final map is required, prior to approval of the Fire Master Plan.

Condition 2.27

PRE-CONSTRUCTION MEETING

Before commencement of construction, the applicant or responsible party shall attend a pre-construction meeting with an OCFA inspector. Call OCFA Inspection Scheduling at 714-573-6150 at least five days in advance of the start of construction to schedule and pay for the preconstruction meeting.

Condition 2.28

SECURED FIRE PROTECTION AGREEMENT
(PPP 11-2)

Prior to the issuance of the first grading permit for the individual development within the IBC, the applicant shall have executed a Secured Fire Protection Agreement with the Orange County Fire Authority.

Condition 2.29

ARCHITECTURAL COATINGS
(PDF 2-9)

Prior to the issuance of grading permits and during construction activities, the applicant shall demonstrate that the construction contractor will use coatings and solvents with a volatile organic compound (VOC) content lower than required under Rule 1113 (i.e., Super Compliant Paints). All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent applicant efficiency. The construction contractor shall also use precoated/natural colored building, where feasible. Use of low-VOC paints and spray method shall be included as a note on architectural building plans.

Condition 2.30

SCAQMD RULE 201 – PERMIT TO CONSTRUCT
(PPP 2-1)

The SCAQMD requires developers who build, install, or replace any equipment or agricultural permit unit, which may cause new emissions of or reduce, eliminate, or control emissions of air contaminants to obtain a permit to construct from the Executive Officer.

Condition 2.31

SCAQMD RULE 402 – NUISANCE ODORS
(PPP 2-2)

Prior to issuance of grading permits, the project applicant shall incorporate the following note on the plan: The SCAQMD prohibits the discharge of any quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property to be emitted within the South Coast Air Basin (SoCAB).

Condition 2.32

SCAQMD RULE 403 – FUGITIVE DUST (PM₁₀ AND PM_{2.5})
(PPP 2-3)

Prior to issuance of grading permits, the project applicant shall incorporate the following note on the plan: The SCAQMD prohibits any person to cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that: (a) the dust remains visible in the atmosphere beyond the property line of the emission source; or (b) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook) if the dust emission is the result of movement of a motorized vehicle.

Condition 2.33

SCAQMD RULE 1403 – ASBESTOS EMISSIONS FROM
DEMOLITION/RENOVATION ACTIVITIES (PPP 2-4)

This rule specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

Condition 2.34

CONSTRUCTION EQUIPMENT
(PDF 2-6)

Prior to the issuance of a grading permit, applicants for new developments in the Irvine Business Complex shall require that the construction contractor utilize off-road construction equipment that conforms to Tier 3 of the United States Environmental Protection Agency, or higher emissions standards for construction equipment over 50 horsepower that are commercially available. The construction contractor shall be made aware of this requirement prior to the start of construction activities. Use of commercially available Tier 3 or higher off-road equipment, or:

- a. Year 2006 or newer construction equipment for engines rated equal to 175 horsepower (hp) and greater;
- b. Year 2007 and newer construction equipment for engines rated equal to 100 hp but less than 175 hp; and
- c. 2008 and newer construction equipment for engines rated equal to or greater than 50 hp.

The use of such equipment shall be stated on all grading plans. The construction contractor shall maintain a list of all operating equipment in use on the project site. The construction equipment list shall state the makes, models, and numbers of construction equipment on-site.

Condition 2.35

EQUIPMENT MAINTENANCE
(PDF 2-7)

Prior to the issuance of a grading permit, the following note shall be placed on the plans: Applicants for new developments in the Irvine Business Complex shall require that the construction contractor to properly service and maintain construction equipment in accordance with the manufacturer's recommendations. Nonessential idling of construction equipment shall be restricted to 5 minutes or less in compliance with California Air Resources Board's Rule 2449.

Condition 2.36

DUST CONTROL PLAN
(PDF 2-8)

Prior to the issuance of a grading permit, applicants for new developments in the Irvine Business Complex shall require that the construction contractor prepare a dust control plan and implement the following measures during ground-disturbing activities in

addition to the existing requirements for fugitive dust control under South Coast Air Quality Management District Rule 403 to further reduce PM₁₀ and PM_{2.5} emissions. To assure compliance, the City shall verify compliance that these measures have been implemented during normal construction site inspections:

- a. During all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering. This would achieve a minimum control efficiency for PM₁₀ of 5 percent.
- b. During all construction activities, the construction contractor shall sweep streets with Rule 1186 compliant PM₁₀-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.
- c. During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and tarp materials with a fabric cover or other suitable means. This would achieve control efficiency for PM₁₀ of 91 percent.
- d. During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. This would achieve emissions reduction control efficiency for PM₁₀ of 61 percent.
- e. During all construction activities, the construction contractor shall limit on-site vehicle speeds on unpaved roads to no more than 15 miles per hour. This would achieve control efficiency for PM₁₀ of 57 percent.
- f. The construction contractor shall apply chemical soil stabilizers to reduce wind erosion. This would achieve control efficiency of up to 80 percent.

Condition 2.37

GRADING CODE COMPLIANCE
(PPP 5-2)

All grading operations and construction will be conducted in conformance with the applicable City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, the most recent version of the California Building Code, and consistent with the recommendations included in the most current geotechnical reports for the project area prepared by the engineer of record.

Condition 2.38

REGISTERED CIVIL ENGINEER
(PPP 5-4)

In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall be performed under the observation of a Registered Civil Engineer specializing in Geotechnical Engineering in order to achieve proper subgrade preparation, selection of satisfactory fill materials, placement and compaction of structural fill, stability of finished slopes, design of buttress fills, subdrain installation, and incorporation of data supplied by the engineering geologist.

Condition 2.39

CERTIFIED ENGINEERING GEOLOGIST
(PPP 5-5)

In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall also be performed under the observation of a Certified Engineering Geologist to provide professional review and written approval of the adequacy of natural ground for receiving fills, the stability of cut slopes with respect to geological matters, and the need for subdrains or other groundwater drainage devices. The geologist shall geologically map the exposed earth units during grading to verify the anticipated conditions, and if necessary, provide findings to the geotechnical engineer for possible design modifications.

Condition 2.40

CONSTRUCTION AND DEMOLITION (C&D)
DEBRIS RECYCLING AND REUSE (PPP 15-1)

The Construction and Demolition (C&D) ordinance requires that 1) all residential projects of more than one unit, 2) nonresidential developments on 5,000 square feet or larger, and 3) nonresidential demolition/renovations with more than 10,000 square feet of building recycle or reuse a minimum of 75 percent of concrete and asphalt and 50 percent of nonhazardous debris generated.

Condition 2.41

HYDROLOGY AND HYDRAULIC ANALYSIS
(PPP 7-1)

Prior to the issuance of preliminary or precise grading permits, the applicant shall submit a hydrology and hydraulic analysis of the entire site. The analysis shall be prepared by a professional civil engineer versed in flood control analysis and shall include the following information and analysis:

- a. Hydrology/hydraulic analysis of 100-year surface water elevation at the project site to determine building elevation or flood proofing elevation.
- b. Analysis of existing and post-development peak 100-year storm flow rates, including mitigation measures to reduce peak flows to existing conditions.
- c. An analysis demonstrating that the volume of water ponded on the site and stored underground in the drainage system outside of the building envelope in the proposed condition is greater than or equal to the corresponding volume in the existing condition. The water surface used to determine the ponded volume shall be based on the water surface in the major flood control facility that the site is tributary to.

Condition 2.42

VIBRATION-INTENSIVE CONSTRUCTION ACTIVITIES
(PDF 9-1)

As described in the proposed zoning for the project, applicants for individual projects that involve vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, occurring near sensitive receptors shall submit a noise vibration analysis prior to their application being deemed complete by the City. If construction-related vibration is determined to exceed the Federal Transit

Administration vibration-annoyance criteria of 78 VdB during the daytime, additional requirements, such as use of less vibration intensive equipment or construction techniques shall be implemented during construction (e.g., drilled piles to eliminate use of vibration-intensive pile driver).

Condition 2.43

NOISE SEPARATION
(PDF 9-2)

Prior to issuance of grading permits, the project applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved.

- a. Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturer's standards.
- b. Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development.
- c. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, whenever feasible.
- d. Construction of sound walls that have been incorporated into the project design prior to construction of the building foundation; or installation of temporary sound blankets (fences typically composed of poly-vinyl-chloride-coated outer shells with adsorbent inner insulation) placed along the boundary of the project site during construction activities.

Condition 2.44

RECYCLING OF MATERIALS CREATED ONSITE

This project will result in new construction that will generate solid waste. Prior to the issuance of precise grading permits, the applicant shall show on the site plans the location of receptacle(s) to accumulate on-site-generated solid waste for recycling purposes. At the discretion of the Director of Community Development the developer of a nonresidential project may be permitted to contract with a waste recycler for offsite materials recovery. In this case the applicant must provide a letter verifying that recycling will be conducted off site in an acceptable manner.

Condition 2.45

SOLID WASTE RECYCLING
(PPP 14-4)

This project will result in new construction that will generate solid waste. Prior to the issuance of precise grading permits, the applicant shall show on the site plans the location of receptacle(s) to accumulate on-site-generated solid waste for recycling purposes. At the discretion of the Director of Community Development the developer of a nonresidential project may be permitted to contract with a waste recycler for off-site materials recovery. In this case the applicant must provide a letter verifying that recycling will be conducted off site in an acceptable manner.

Condition 2.46

CONSTRUCTION WORKERS

Prior to the issuance of a grading permit, applicants for new developments in the Irvine Business Complex shall require that the construction contractor provide alternative transportation mode incentives, such as bus passes and/or carpooling for workers to and from the worksite on days that construction activities require 200 or more workers. These requirements shall be noted on the grading plan cover sheet.

Condition 2.47

IRWD RECYCLED WATER SYSTEM
(PPP 14-1)

Prior to the issuance of a grading permit, applicants for new developments in the Irvine Business Complex shall incorporate the use of a recycled water system if available by Irvine Ranch Water District (IRWD). Irvine Ranch Water District (IRWD) will identify customers in a zone identified in the Plan ("the Plan" collectively refers to the Water Resources Master Plan, Sewer Master Plan, Natural Treatment System Master Plan, and addenda thereto) as an area capable of receiving service from the IRWD's recycled water system, and will determine the feasibility of providing recycled water service to these customers. IRWD will also review applications for new permits to determine the feasibility of providing recycled water service to these applicants. If recycled water service is determined by IRWD to be feasible, applicants for new water service shall be required to install on-site facilities to accommodate both potable water and recycled water service in accordance with these Rules and Regulations. IRWD may also require existing customers to retrofit existing on-site water service facilities to accommodate recycled water service. If IRWD does not require the use of recycled water service, the customer may obtain recycled water service upon request but only if IRWD has determined that recycled service to the customer is feasible and authorizes such use.

Condition 2.48

RECLAIMED WATER ON MASTER LANDSCAPED AREAS

If recycled water service is determined by IRWD to be feasible, applicants for new developments in the Irvine Business Complex shall use reclaimed water in all master landscaped areas. This will include master landscaped commercial, multifamily, common, roadways, and park areas. Master landscapes will also incorporate weather-based controllers and efficient irrigation system designs to reduce overwatering, combined with the application of a California-friendly landscape palette.

Condition 2.49

IRWD CONNECTION FEE
(PPP 14-2)

Prior to the issuance of a grading permit, future project applicants in the Irvine Business Complex shall enter into agreement or agreements as necessary with IRWD to establish the appropriate financial fair share costs to be borne by the project proponent. Fair share costs may include, but are not limited to, those associated with the preparation of studies and infrastructure expansion necessary to analyze and serve the project.

Condition 2.50

FIRE FLOW ANALYSIS
(PPP 14-3)

Prior to the issuance of a grading permit, in accordance with IRWD requirements, each redevelopment project in the Irvine Business Complex must provide a fire flow analysis. If the analysis identifies any deficiencies, the developer will be responsible for any water system improvements associated with the development project required to rectify the deficiencies and meet IRWD fire flow requirements.

Condition 2.51

TREE REMOVAL
(PPP 3-2)

If any trees are removed, the Applicant shall carry out a tree survey and obtain a permit for their removal in accordance with the City's tree preservation ordinance (including 1:1 replacement).

Condition 2.52

ACCIDENTAL DISCOVERY
(PPP 4-2)

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, one of the following steps shall be taken:

- a. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Orange County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.
- b. Where the following conditions occur, the land owner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the property in a location not subject to further subsurface disturbance:
 - i. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission;
 - ii. The identified descendent fails to make a recommendation; or
 - iii. The landowner or his/her authorized representative rejects the recommendation of the descendent, and mediation by the Native

American Heritage Commission fails to provide measures acceptable to the landowner (CEQA Guidelines Section 15064.5(e)).

PRIOR TO THE ISSUANCE OF BUILDING PERMITS

Standard Condition 3.3 (modified)

DISCLOSURE STATEMENTS (PDF 6-2)

Prior to the issuance of building permits, the applicant shall submit to the Director of Community Development for review and approval a completed occupancy disclosure form for the project. The approved disclosure form, along with its attachments, shall be included as part of the room reservation literature for the project. The disclosure statement shall include information, current as of the date of submittal, with respect to each item marked with an "x" on the list below. The items marked "n/a" need not be included.

- X** a. Information on Noise resulting from aircraft and/or helicopter operations from John Wayne Airport.
- X** b. Reference to Emergency Preparedness information available on the City of Irvine website.
- n/a** c. Map of Special Flood Hazard Area information for areas subject to inundation.
- n/a** d. Notice that initial occupancy and any subsequent change in use or occupancy of any non-residential condominium space, requires the buyer or the new or existing occupant to apply to the Community Development Department and obtain approval by way of a of written zoning confirmation letter or obtain a building permit and obtain inspection approval for any necessary work to establish the use and/or occupancy consistent with that intended.
- X** e. Notice that the property owner shall be responsible for continuous maintenance of the emergency access equipment thus ensuring these systems will be operational at all times, as required by the Chief of Police.
- n/a** f. Notice that the property is located near and/or adjacent to private and/or public park(s) that may include recreational, field/court lighting, and other related improvements.
- n/a** g. Notice that the property is located near and/or adjacent to public open space land that may include trails, trailheads, parking facilities, and other related improvements and operations.
- n/a** h. Notice that the property is located near and/or adjacent to public trails and/or related improvements and operations.

Standard Condition 3.5 (modified)

FINAL ACOUSTICAL REPORT (PPP 9-2 and PDF 9-4)

Prior to the issuance of building permits for each structure or tenant improvement other

than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development. The report shall show that the development will be sound attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. The final acoustical report shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). In order to demonstrate that all mitigation measures have been incorporated into the project, the report shall be accompanied by a list identifying the sheet(s) of the building plans that include the approved mitigation measures.

As described in the proposed zoning for the project, residential and active recreational areas shall be prohibited in the 65 dBA CNEL noise contour of the John Wayne Airport. In addition, as described in the proposed zoning for the project, prior to issuance of building permits, the project applicant for any project within the 60 dBA CNEL contour of the John Wayne Airport shall retain an acoustical engineer to prepare an acoustic analysis that identifies required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to achieve the 45 dBA CNEL interior noise standard of Title 21 and Title 24 of the California Building Code. In addition to the 24-hour interior noise standard, the acoustic report shall detail compliance with the City's interior noise standard of 55 dBA Lmax (10) for single-event noise generated by the loudest 10 percent of aircraft overflights at the John Wayne Airport. Parks within the 60 dBA CNEL noise contour shall include signage indicating their proximity to John Wayne Airport and related airport noise. The acoustic analysis shall be submitted to the Director of Community Development to ensure compliance.

Standard Condition 3.6

SITE LIGHTING REQUIREMENTS (PPP 1-2)

Prior to the issuance of building permits, the applicant shall demonstrate they have met the Irvine Uniform Security Code requirements for lighting by providing the below listed items for a complete review by the Police department. Failure to provide a complete lighting package will result in the delay of satisfaction of this condition.

- a. Electrical plan showing light fixture locations, type of light fixture, height of light fixture, and point-by-point photometric lighting analysis overlaid on the landscape plan with a tree legend. The photometric plan should only show those fixtures used to meet the Irvine Uniform Security Code requirements.
- b. Corresponding fixture cut-sheets (specifications) of those lights used to meet the Irvine Uniform Security Code.
- c. Site plan demonstrating that landscaping shall not be planted so as to obscure required light levels.
- d. Site plans that are full-scale and legible.

Standard Condition 3.7

SOLID WASTE RECYCLING

Prior to the issuance of building permits for a project that involves new construction or that involves the demolition or renovation of existing buildings on site, the applicant shall

comply with requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of construction and demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers.

Standard Condition 3.17

EMERGENCY ACCESS PLAN

Prior to the issuance of the first building permit, the applicant shall submit and have approved by the Chief of Police an Emergency Access Plan, which identifies and locates all Knox Boxes, Knox key switches, and Click2Enter radio access control receivers. Said plan shall be incorporated into the plan set approved for building permits.

Standard Condition 3.18

WAYFINDING (DIRECTIONAL) PLAN

Prior to the issuance of the first building permit, a Wayfinding (Directional) Plan including exterior building numbers, unit numbers, directional unit signs, and entrance directory shall be approved by the Chief of Police. Said plan shall be incorporated into the plan set approved for building permits

Standard Condition 3.20

CONSTRUCTION SITE SECURITY PLAN

Prior to the issuance of the first building permit, a Construction Site Security Plan, per the Irvine Uniform Security Code, Section 5-9-521, shall be approved by the Chief of Police. Said plan shall be incorporated into the plan set approved for building permits.

Condition 3.27

OCFA PLANS

Prior to Orange County Fire Authority (OCFA) issuance of a building permit, the applicant shall submit for review and approval the following plans:

- a. Architectural (Service Codes PR200-PR285)
- b. Tanks Storing Hazardous Materials (Service Codes PR300-305)
- c. Refrigeration and Vapor Detection/Alarm System (Service Codes PR340 and PR 500-520), if required by the Refrigeration Disclosure worksheet in OCFA Guideline G-02 or the California Fire or Mechanical Codes
- d. Battery (Service Code PR375), for any system containing an aggregate quantity of electrolyte in excess of 50 gallons
- e. Smoke Control Rational Analysis, Report and other required documentation (Service Codes PR380-PR382)
- f. Emergency Responder Radio System Design (Service Code PR928). This submittal may be deferred when acceptable to the Building Department, but the required conduit must be installed prior to concealing interior construction.
- g. Underground piping for private hydrants and fire sprinkler systems (Service Codes PR470-PR475)

Condition 3.28

FIRE PROTECTION ACCESS EASEMENTS
(PPP 11-3)

Prior to the issuance of the first building permit, all fire protection access easements shall be approved by the Orange County Fire Authority and irrevocably dedicated in perpetuity to the City.

Condition 3.29

PARKING SURVEILLANCE CAMERA PLAN

Prior to the issuance of the first building permit, the applicant shall submit a Parking Surveillance Camera Plan showing color cameras capable of monitoring all public and tenant building entrances, capturing a picture of a person's face when entering/exiting the hotel. Provide cameras to view and record vehicles entering/exiting the garage, including views of license plates. Camera images are to be stored on a digital DVR for a minimum of 30 days.

Condition 3.30

BUILDING CODE COMPLIANCE
(PPP 5-6)

Future buildings and structures (e.g., houses, retaining walls) shall be designed in accordance with the City of Irvine Building Code and the most recent Uniform Building Code and/or California Building Code. The concrete utilized shall take into account the corrosion and soluble sulfate soil conditions at the site. The structures shall be designed in accordance with the seismic parameters included in the UBC/CBC.

Condition 3.31

AIRPORT ENVIRONS LAND USE PLAN STANDARDS
(PDF 6-1)

As described in the proposed zoning for the project, building height limitations, recordation of aviation easements, obstruction lighting and marking, and airport proximity disclosures and signage shall be provided consistent with the Airport Environs Land Use Plan for John Wayne Airport.

Condition 3.32

SCHOOLS FEE
(PPP 11-6)

Pursuant to Government Code Sec. 65995, the individual applicants shall pay developer fees to the appropriate school districts at the time building permits are issued; payment of the adopted fees would provide full and complete mitigation of school impacts. Alternatively, the applicant may enter into a school finance agreement with the school district(s) to address mitigation to school impacts in lieu of payment of developer fees. The agreement shall establish financing mechanisms for funding facilities to serve the students from the project. If the applicant and the affected school district(s) do not reach a mutually satisfying agreement, then project impacts would be subject to developer fees.

Condition 3.33

LIBRARY IMPACT FEE
(PDF 11-3)

Prior to issuance of building permits, the applicant shall pay a Citywide library impact fee in the event this fee is adopted and in force.

Condition 3.34

IBC TRAFFIC IMPROVEMENT FEE
(PPP 13-1)

Prior to the issuance of building permits, the applicant shall pay the IBC Traffic Improvement fees (Irvine City Council Resolution No. 11-13) effective at the time of permit issuance. A Development Fee program was established to fund area-wide circulation improvements within the IBC area. The improvements are required due to potential circulation impacts associated with buildout of the IBC area. Fees are assessed when there is new construction or when there is an increase in square footage within an existing building or the conversion of existing square footage to a more intensive use. The development fees collected are used strictly for circulation improvements right-of-way acquisition and transportation monitoring measures in the IBC area. Fees are calculated by multiplying the proposed square footage, dwelling unit or hotel room by the appropriate rate. The IBC Fees are included with any other applicable fees payable at the time the building permit is issued.

Condition 3.35

TOT AGREEMENT

Prior to the issuance of building permits, the applicant shall submit an agreement between the applicant and the City of Irvine describing implementation procedures for accepting transient occupancy tax (TOT). The agreement shall require hotel guests to check out of the hotel following a length of stay not to exceed 30 days. Guest(s) desiring a stay of longer than 30 days shall have the right of same day check-in to the hotel. Such agreement shall be reviewed by the City Attorney, approved by the Director of Community Development, and recorded by the Clerk Recorder, County of Orange.

Condition 3.36

RECYCLED MATERIALS
(PDF 15-2)

Prior to the issuance of building permits, applicants for new developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development or the Director of Public Works that the project uses recycled materials for at least 20 percent of construction materials. Recycled materials may include salvaged, reused, and recycled content materials. Recycled and/or salvaged building materials shall be shown on building plans and product cut sheets submitted to the City.

Condition 3.37

OUTDOOR LIGHTING
(PPP 1-1)

Prior to the issuance of building permits, the applicant shall demonstrate that outdoor lighting is designed and installed so that all direct rays are confined to the site and adjacent properties are protected from glare as required by Chapter 3-16, *Lighting*, of

the Irvine Zoning Ordinance. The level of lighting on the site shall comply with the requirements of the City's Uniform Security Code.

Condition 3.38

2008 BUILDING AND ENERGY EFFICIENCY STANDARDS
(CCR TITLE 24) (PPP 15-2)

Prior to the issuance of a building permit for residential, commercial, or office structures in the Irvine Business Complex, development plans for these structures shall be required to demonstrate that the project meets the 2008 Building and Energy Efficiency Standards. Commonly known as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2008 standards are approximately 15 percent more energy efficient than the 2005 Building and Energy Efficiency Standards. Plans submitted for building permits shall include written notes demonstrating compliance with the 2008 energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits. Design strategies to meet this standard may include maximizing solar orientation for daylighting and passive heating/cooling, installing appropriate shading devices and landscaping, utilizing natural ventilation, and installing cool roofs. Other techniques include installing insulation (high R value) and radiant heat barriers, low-e window glazing, or double-paned windows

Condition 3.39

TITLE 24 CODE CYCLES: NET-ZERO BUILDINGS
(PPP 15-3)

The California Public Utilities Commission adopted its Long-term Energy Efficiency Strategic Plan on September 18, 2008, presenting a roadmap for all new residential and commercial construction to achieve a zero-net energy standard. This Plan outlines the goal of reaching zero net energy in residential construction by 2020 and in commercial construction by 2030. Achieving this goal will require increased stringency in each code cycle of California's Energy Code (Title 24).

Condition 3.40

STATE ENERGY INSULATION STANDARDS
(PPP 14-5)

The proposed project shall comply with all State Energy Insulation Standards and City of Irvine codes in effect at the time of application for building permits. (Commonly referred to as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 covers the use of energy efficient building standards, including ventilation, insulation and construction and the use of energy saving appliances, conditioning systems, water heating, and lighting.) Plans submitted for building permits shall include written notes demonstrating compliance with energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits.

Condition 3.41

ULTRA-LOW-FLOW FIXTURES
(PDF 15-10)

Prior to the issuance of building permits, applicants for new developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development that toilets, urinals, sinks, showers, and other water fixtures installed on-site are ultra-low-flow water fixtures that exceed the Uniform Plumbing Code. Examples are: 1.28 average gallons per flush high efficiency toilets, 2 gallon per minute (gpm) efficient bathroom faucets, 2.2 gpm efficient kitchen faucets, and 2.2 gpm efficient shower heads.

Condition 3.42

LANDSCAPING AND IRRIGATION SYSTEMS
(PDF 15-11)

Prior to the issuance of building permits, applicants for new developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development that landscaping irrigation systems installed in the project are automated, high-efficient irrigation systems that reduce water use, such as an evapotranspiration “smart” weather-based irrigation controller, dual piping for recycled water, and bubbler irrigation; low-angle, low-flow spray heads; moisture sensors; and use of a California-friendly landscape palette. These features will make the project consistent with the intent of the California Water Conservation in Landscaping Act of 2006 (AB 1881), including provisions to reduce the wasteful, uneconomic, inefficient, and unnecessary consumption of water.

Condition 3.43

GREEN-POINT RATED DEVELOPMENT
(PDF 15-14)

Prior to the issuance of building permits, applicants for new developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development that proposed buildings are designed and construction to be GreenPoint Rated. GreenPoint Rated developments must achieve a minimum of 50 total points and meet the category-specific point thresholds as specified in the current GreenPoint Rated Builder Handbook. Developments that exceed this minimum are rewarded by a higher grade on their projects. The GreenPoint Rated program is updated every three years to coincide with changes to the California Building Energy Efficiency Standards.

Condition 3.44

BIKE RACKS

Prior to the issuance of building permits for the parking garage, the applicant shall demonstrate that bicycle racks are enclosed with a floor to ceiling fence and locked either with an access control system locking device or mechanical door lock (no padlocks).

PRIOR TO FINAL APPROVAL OF COMPLETED WORK AUTHORIZED BY GRADING PERMITS

Standard Condition 3.45

RECORD DRAWINGS – PDF & AUTOCAD

Prior to final approval of a grading, landscaping, or improvement permit, and following final inspection, the applicant shall submit to the City individual PDF files of the drawing and AutoCAD files. The permit number and the words “RECORD DRAWING” shall appear on all of the sheets.

PRIOR TO AUTHORIZATION TO USE, OCCUPY, AND/OR OPERATE

Standard Condition 4.9

EMERGENCY ACCESS INSPECTION

Prior to authorization to use, occupy, and/or operate, the applicant shall arrange for and have passed an inspection, to be performed by the Police Department and the Orange County Fire Authority, to ensure compliance with the Emergency Access Plan requirements. The inspector shall verify test acceptance and locations of all Knox boxes and key switches as depicted on the approved plan.

Condition 4.12

PARKING SURVEILLANCE CAMERA PLAN INSPECTION

Prior to authorization to use, occupy, and/or operate, the applicant shall arrange for and pass an inspection, to be performed by the Irvine Police Department, to ensure that the project complies with the Parking Surveillance Camera Plan. The inspector shall verify that the cameras capture and store the images of persons and vehicles when entering / exiting the facility.

Condition 4.13

TEMPORARY / FINAL OCCUPANCY INSPECTION

Prior to temporary or final authorization to use, occupy, and/or operate, all OCFA inspections shall be completed to the satisfaction of the OCFA inspector and be in substantial compliance with codes and standards applicable to the project and commensurate with the type of occupancy (temporary or final) requested. Inspections shall be scheduled at least two days in advance by calling OCFA Inspection Scheduling at 714-573-6150.

Condition 4.14

OCFA - HAZARDOUS MATERIALS DISCLOSURE

Prior to authorization to use, occupy, and/or operate, the facility manager or other qualified employee familiar with the chemicals used, handled, or stored at this facility shall complete and submit an OCFA Hazardous Materials Disclosure. The Hazardous Materials Disclosure is available at OCFA headquarters (1 Fire Authority Road, Irvine, CA) or on-line at www.ocfa.org. Contact OCFA Safety and Environmental Services at 714-573-6250 for more information.

Condition 4.15

OCFA – RADIO SYSTEM

Prior to authorization to use, occupy, and/or operate, an emergency responder digital radio system shall be provided in this structure. Refer to CFC 510 and the OCC/OCFA DAS/BDA guidelines (available at www.ocfa.org) for requirements. Evidence of compliance with emergency responder digital radio system design and performance criteria shall be provided.

Condition 4.16

NOISE DISCLOSURE
(PDF 9-3)

As described in the proposed zoning for the project, prior to issuance of certificate of occupancy, the project applicant shall submit evidence to the satisfaction of the Director of Community Development that occupancy disclosure notices for units with patios and/or balconies that do not meet the 65 dBA CNEL are provided to all future tenants pursuant to the City's Noise Ordinance.

Condition 4.17

HOTEL OPERATIONS PLAN

Prior to authorization to use, occupy, and/or operate, the applicant shall submit a Hotel Operations Plan to the Community Development Director for review. This plan shall include information pertaining to delivery hours, service of alcohol, types and frequency of special events, etc. Depending on the information presented in the plan, a modification to the approved entitlement or a new entitlement may be required.

MISCELLANEOUS

Standard Condition 6.1

DISCRETIONARY CASE CHARGES

The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or may result in the revocation of the approval of this application.

Standard Condition 6.2

LEGAL ACTION – HOLD HARMLESS

In accordance with the provisions of Section 5-5-114 of the Irvine Municipal Code and Government Code Section 66474.9, the applicant shall defend, indemnify, and hold harmless the City of Irvine and its agents, officers, and employees from and against any claim, action, or proceeding against the City agency or its agents, officers, or employees to attack, set aside, void, or annul an approval by the City, including, without limitation, an action by an advisory agency, appeal board, or legislative body concerning this discretionary approval. This defense and indemnification shall include the payment of all legal costs incurred on behalf of the City in connection with the application, and the defense of any claim, action or proceeding challenging the approval. The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in

the defense.

In the event a legal challenge to the discretionary approval is successful, and an award of attorney fees is made to the challenger, the applicant shall be responsible to pay the full amount of such an award.

Condition 6.19

GREENWASTE (REUSED / RECYCLED)

The applicant shall incorporate drought-tolerant, low-waste generating plants into any planned landscaping at the property pursuant to Section 5-7-101 of the Irvine Municipal Code. In addition, the applicant should be encouraged to recycle and compost all generated greenwaste in keeping with the City's Zero Waste Resolution 07-95 and state law.

Condition 6.20

KNOX BOX

The applicant shall provide for emergency access at all public and tenant building entrances by installing a Knox Box or Knox keyswitch, depending upon whether it is a mechanical (box) or electronic lock (keys switch).

Condition 6.21

ELEVATOR CABS AND LOBBIES

All elevators proposed at the project site shall comply with Section 5-9-518 of the Irvine Security Code. Elevator cabs and lobbies, if enclosed, shall be constructed of glazing, the maximum amount allowed by the Uniform Building Code.

Condition 6.22

UNIFORM SECURITY CODE
(PPP 11-5)

The project applicant shall comply with all applicable requirements of the City of Irvine Uniform Security Code.

Condition 6.23

OCFA PLANS

Prior to concealing interior construction, the applicant shall submit to OCFA for review and approval the following plans:

- a. Fire Alarm System (Service Codes PR500-PR520)
- b. Fire Sprinkler System (Service Codes PR400-PR465)
- c. Hood and Duct Extinguishing System (Service Code PR335)

Condition 6.24

OCFA COMPLIANCE
(PPP 11-1)

Every project applicant shall comply with all applicable Orange County Fire Authority codes, ordinances, and standard conditions regarding fire prevention and suppression measures relating to water improvement plans, fire hydrants, automatic fire extinguishing

systems, fire access, access gates, combustible construction, water availability, and fire sprinkler systems.

Condition 6.25

MATERIAL RECOVERY

To reduce waste generated in the IBC and encourage recycling of solid wastes, the Orange County Integrated Waste Management Department operates material recovery facilities to recycle glass, plastic, cans, junk mail, paper, cardboard, green waste (e.g., grass, weeds, leaves, branches, yard trimmings, and scrap wood), and scrap metal. Future employees, residents, and customers would participate in these programs. On-site recycling facilities will be required for all commercial, retail, industrial, and multifamily residential developments.

Condition 6.26

UNDERGROUND STORAGE TANKS
(PPP 6-1)

If any underground storage tanks (USTs) are encountered during site grading and excavation activities, they shall be removed in accordance with the existing standards and regulations of, and oversight by, the Orange County Health Care Agency (OCHCA), based on compliance authority granted through the California Code of Regulations, Title 23, Division 3, Chapter 16, Underground Tank Regulations. The process for UST removal is detailed in the OCHCA's "Underground Storage Tanks: The Basics." Soil samples from areas where storage tanks have been removed or where soil contamination is suspected shall be analyzed for hydrocarbons including gasoline and diesel in accordance with procedures set forth by OCHCA. If hydrocarbons are identified in the soil, the appropriate response/remedial measures will be implemented as directed by OCHCA with support review from the RWQCB until all specified requirements are satisfied and a Tank Closure Letter is issued. Any aboveground storage tank (AST) in existence at the commencement of site development shall be removed in accordance with all applicable regulations under the oversight of Orange County Fire Authority. Compliance requirements relative to the removal/closure of storage tanks are set forth through the California Health and Safety Code, Sections 25280 through 25299.

Condition 6.27

LEAD EXPOSURE
(PPP 6-2)

During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

Condition 6.28

LEAD-BASED PAINT
(PPP 6-4)

Federal law requires compliance with Rule 29 of the Code of Federal Regulations (CFR) Part 1926. Prior to site demolition activities, building materials shall be carefully assessed for the presence of lead-based paint, and its removal, where necessary, must comply with state and federal regulations, including Occupational Safety and Health Administration (OSHA) 29 CFR Part 1926. The OSHA rule establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation of monitoring. Furthermore, the requirements of California Code of Regulations, Title 17, Division 1, Chapter 8, identify procedures that must be followed for accreditation, certification, and work practices for lead-based paint and lead hazards. Section 36100 thereof specifically sets forth requirements for lead-based paint abatement in public and residential buildings.

Condition 6.29

ASBESTOS
(PPP 6-5)

Prior to site demolition activities, building materials must be carefully assessed for the presence of asbestos-containing materials (ACM), and removal of this material, where necessary, must comply with state and federal regulations, including SCAQMD Rule 1403, which specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of ACMs. The requirements for demolition and renovation activities include asbestos surveying; notification; ACM removal procedures and time schedules; ACM handling and cleanup procedures; and storage, disposal, and landfill disposal requirements for asbestos-containing waste materials.

Condition 6.30

HAZARDOUS WASTE
(PPP 6-6)

During site decommissioning and demolition activities, hazardous wastes must be managed in accordance with the requirements of Title 22, Division 4.5 of the California Code of Regulations. Title 22 sets forth the requirements with which hazardous-waste generators, transporters, and owners or operators of treatment, storage, or disposal facilities must comply. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste such as the requirements for transporting shipments of hazardous waste, manifesting, vehicle registration, and emergency accidental discharges during transportation.

Condition 6.31

COMPLIANCE WITH TITLE 8
(PPP 6-7)

During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1529, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to asbestos. Asbestos-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

Condition 6.32

SOIL CONTAMINATION
(PPP 6-8)

Evidence of soil and/or groundwater contamination (e.g., chemical odors, staining) unrelated to above/underground storage tank releases may be encountered during site development. The appropriate agency (e.g., OCHCA, DTSC, or the Regional Water Quality Board) shall be notified if these conditions are encountered during construction or grading activities. With their oversight, an environmental site assessment would be completed and a determination shall be made as to whether a cleanup is required. Cleanup activities would be consistent with all applicable State and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil and/or groundwater reveal levels of contamination below the standards established by the oversight agency. Alternatively, a risk assessment may be prepared for the site to determine that there are no human or environmental risks associated with leaving contamination below specific levels in place. Construction in the impacted area shall not proceed until a "no further action" clearance letter or similar determination is issued by the oversight agency, or until a land use covenant is implemented.

Condition 6.33

DEMOLITION OF HAZARDOUS MATERIALS
(PDF 6-3)

As described in the proposed zoning code related to hazardous material standards, individual development sites may have existing facilities, such as underground storage tanks, transformers or clarifiers, that contain hazardous materials. To mitigate any hazardous materials-related impacts related to these facilities, the project applicant shall submit a Site Assessment prior to the City deeming the development application complete. If hazardous materials are identified during the site assessment, the appropriate response/remedial measures will be implement[ed] in accordance with the directives of the Orange County Fire Authority (OCFA), Orange County Health Care Agency (OCHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate. If soils are encountered during site development that are suspected of being impacted by hazardous materials, work will be halted and site conditions will be evaluated by a qualified environmental professional. The results of the evaluation will be submitted to OCFA, OCHCA, and/or RWQCB, and the appropriate response/remedial measures will be implemented, as directed by OCFA, OCHCA, RWQCB, or other applicable oversight agencies, until all specified requirements of the oversight agencies are satisfied and a no-further-action status is attained.

Condition 6.34

LAND USE COMPATIBILITY
(PDF 8-2)

As described in the proposed zoning code relating to compatibility with surrounding uses, the IBC mixed-use environment is an urbanized area, and land use compatibility issues are expected to occur. Therefore, applications for new residential and/or residential mixed-use development shall submit data, as determined by the Director of Community Development, for the City to evaluate compatibility with surrounding uses with respect to issues including, but not limited to: noise, odors, truck traffic and deliveries, hazardous materials handling/ storage, air emissions, and soil/groundwater contamination. Compatibility with adjacent uses shall be determined through consistency with local, state, and federal regulations including but not limited to the City of Irvine Municipal Code, South Coast Air Quality Management District, Orange County Fire Authority (OCFA), Orange County Health Care Agency (OCHCA) and/or the Regional Water Quality Control Board (RWQCB).

Condition 6.35

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN
(PDF 11-2)

Utilize the concepts of Crime Prevention through Environmental Design in the design and layout of any project to reduce criminal opportunity and calls for service, as specified in the proposed zoning code.

Condition 6.36

CLICK 2 ENTER
(PDF 11-2)

A Click2Enter radio frequency access system shall be installed at any vehicle and pedestrian access point controlled by privacy gates within the project area.

Condition 6.37

COMPACT / MIXED-USE DEVELOPMENT
(PDF 15-3)

The California Energy Commission (CEC) considers compact development forms beneficial for minimizing energy consumption that leads to greenhouse gas emissions. In fact, the CEC's report on the connections between land use and climate change identifies density as the project feature most predictive of the number of vehicle trips and vehicle miles traveled (VMT) by project occupants. The project locates additional housing opportunities near major employment and transportation centers. On a regional basis, this Land Use PDF will reduce regional VMT.

Condition 6.38

HIGH RATE OF INTERNAL TRIP CAPTURE
(PDF 15-4)

With the inclusion of a mix of land uses including office, commercial, industrial, and residential in the project area, the proposed project significantly reduces trips outside the project area. This reduces trip length and congestion on the local circulation system outside the project area.

Condition 6.39

URBAN INFILL NEAR MULTIPLE TRANSIT MODES
(PDF 15-6)

The project would develop high-density housing in an area being served by at least two modes of transit. On March 31, 2008, The iShuttle, which is operated by the City of Irvine and designed for the IBC community, began operating. The shuttle allows residents and employees to have an alternative way to commute to jobs and locations throughout the IBC. The shuttle offers three routes to accommodate residents and employees traveling within the area and to and from the IBC (see Figure 4-2 [of the IBC Vision Plan EIR], The iShuttle Route). Route A connects the Tustin Metrolink Station to the John Wayne Airport via Von Karman Avenue. Route B connects the Tustin Metrolink Station to the heart of the IBC via Jamboree Road and Michelson Drive. Route C is a midday service in the busiest section of the IBC. Therefore, the project would facilitate walking and nonmotor travel to a greater extent than would be the case for similar development in outlying areas without extensive transit availability. In addition, the high-density development would include a greater number of potential residents that could use or engage in alternative modes of travel than in a lower density development on the project site.

Condition 6.40

CONTROL OF CONSTRUCTION HOURS
(PPP 9-1)

Section 6-8-205(a), *Control of Construction Hours*, Irvine Municipal Code states: construction activities may occur between 7 a.m. and 7 p.m. Mondays through Fridays, and 9 a.m. and 6 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.

Condition 6.41

HOTLINE FOR COMPLAINTS

During all construction activities, the applicant or developer shall provide a toll free hotline for complaints relating to the construction of the project. The hotline shall be staffed by a live operator who is able to immediately access a construction supervisor who is present at the project site. Prior to the issuance of grading permits, the applicant or developer shall post at least one highly visible sign along the frontage of the site informing the public of the availability of the hotline.

Condition 6.42

ACCESS STUDY RECOMMENDATIONS

The applicant shall be responsible for implementing the recommendations set forth in the April 5, 2017 Access Study by LSA completed for the proposed project. These project design features are specific to the design of the project driveways and the adjacent circulation system.

Condition 6.43

COMPLIANCE WITH ASSOCIATED APPROVALS

The conditions of approval and/or measures found within the following documents shall also apply to the approved Commercial Master Plan:

- A. Subdivision Committee Resolution 17-1008, approving Vesting Tentative Parcel Map 2016-139 (File No. 00676670-PTP); and
- B. Addendum to the IBC EIR dated June 2017.

PASSED AND ADOPTED by the Planning Commission of the City of Irvine at a regular meeting held on the 15th day of June 2017.

AYES: 0 COMMISSIONERS:

NOES: 0 COMMISSIONERS:

ABSENT: 0 COMMISSIONERS:

ABSTAIN: 0 COMMISSIONERS:

CHAIR OF THE PLANNING
COMMISSION FOR THE CITY OF IRVINE

SECRETARY OF THE PLANNING COMMISSION
FOR THE CITY OF IRVINE



May 25, 2017

Kari A. Rigoni, Executive Officer
Airport Land Use Commission for Orange County
3160 Airway Avenue
Costa Mesa, CA 92626


Subject: Notification of Override Hearing
The Landmark Project (File 00659728-PMPC) located 18872, 18912 and 18952 MacArthur Blvd. in Planning Area 36 (Irvine Business Complex)

Dear Ms. Rigoni:

This letter serves as notification that the City of Irvine City Council intends to hold a hearing to consider an override of the ALUC findings that the subject project is inconsistent with the Airport Environs Land Use Plans (AELUPs) for John Wayne Airport and for Heliports. The City Council hearing will be held on July 11, 2017. This correspondence, therefore, is being delivered more than 45 days in advance of the hearing.

Draft findings for the override are attached for your consideration. For the City to consider your comments, please respond within 30 days of receipt of this letter (on or before Monday, June 26, 2017). A staff report will be prepared and transmitted to the City Council before the hearing. The staff report has not been prepared at this time; however, a copy will be provided to you electronically when it is finalized.

This advance notification letter has also been mailed to the Caltrans Aeronautics Program Office in Sacramento. If you have any questions or comments, please contact me at 949-724-6375 or via e-mail at sfrady@cityofirvine.org.

Sincerely,

STEPHANIE FRADY, AICP
Senior Planner

Attachment: Draft Findings

cc: Department of Transportation - Division of Aeronautics (MS 40, PO Box 942874,
Sacramento, CA 94274-0001)
File: 00659728-PMPC

ATTACHMENT 3 TO STAFF REPORT DATED 7/11/17

Ms. Kari Rigoni
May 25, 2017
Page 2

ec: Sean Cao, Great Far East (sean.cao@greatfareast.com)
Hope Fazio, Great Far East (hope.fazio@greatfareast.com)
Tim Strader, Starpointe Ventures (tj@starpointeventures.com)
Mark Mispagel (mark@mispagellaw.com)
Lea Choum, Land Use Manager Facilities – JWA (LChoum@ocairp.com)
Tim Gehrich, Deputy Director of Community Development
Joel Belding, Principal Planner

ATTACHMENT 1 DRAFT FINDINGS

SECTION 1. The findings, required by Sections 21670 and 21676 of the Public Utilities Code to override the Airport Land Use Commission determination of inconsistency with the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (JWA), are hereby made as follows:

- A. It is in the public interest to (1) provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to (2) promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to (3) prevent the creation of new noise and safety problems.

(1) To provide for the orderly development of JWA and the area surrounding the airport, the Airport Land Use Commission (ALUC) adopted the 2008 AELUP on April 17, 2008. AELUP Section 2.1 sets forth specific standards and criteria for new development, which is based on the continuing operation of JWA as a commercial and general aviation airport. The AELUP standards/criteria guide development proposals to best provide for orderly development within the area surrounding JWA. Specific criteria for consideration include: Aircraft Noise, Safety Compatibility Zones and Building Height Restrictions.

The City's submittal package, dated April 3, 2017, prepared for the ALUC to aid in its review of the proposed Landmark Project, included a discussion of the AELUP standards which are technically met allowing the project to be consistent with the JWA AELUP. Specific compliance with Section 2.1 is described as follows:

- a. Aircraft Noise – The Landmark Project is located within the 60 CNEL Contour. However, noise measures set forth in the 2008 IBC Vision Plan Environmental Impact Report will apply to The Landmark project. The measures are as follows:

- I. Plans, Programs and Policies (PPP) 9-1 Control of Construction Hours: Construction activities occurring as part of the project shall be subject to the limitations and requirements of Section 6-8-205(a) of the Irvine Municipal Code which states that construction activities may occur between 7:00 AM and 7:00 PM Mondays through Fridays, and 9:00 AM and 6:00 PM on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City

shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.

- II. PPP 9-2 Acoustical Report: Prior to the issuance of building permits for each structure or tenant improvement other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development. The report shall show that the development will be sound attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. The final acoustical report shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). In order to demonstrate that all mitigation measures have been incorporated into the project, the report shall be accompanied by a list identifying the sheet(s) of the building plans that include the approved mitigation measures.
- III. Project Design Feature (PDF) 9-2: Prior to issuance of grading permits, the project applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved.
 - i. Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturer's standards.
 - ii. Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development.
 - iii. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, whenever feasible.
 - iv. Construction of sound walls that have been incorporated into the project design prior to construction of the building foundation; or installation of temporary sound blankets (fences typically composed of poly-vinyl-chloride-coated outer shells with adsorbent inner insulation) placed along the boundary of the project site during construction activities.

- IV. PDF 9-3: As described in the proposed zoning for the project, prior to issuance of certificate of occupancy, the project applicant shall submit evidence to the satisfaction of the Director of Community Development that occupancy disclosure notices for units with patios and/or balconies that do not meet the 65 dBA CNEL are provided to all future tenants pursuant to the City's Noise Ordinance.
 - V. PDF 9-4: As described in the proposed zoning for the project, residential and active recreational areas shall be prohibited in the 65 dBA CNEL noise contour of the John Wayne Airport. In addition, as described in the proposed zoning for the project, prior to issuance of building permits, the project applicant for any project within the 60 dBA CNEL contour of the John Wayne Airport shall retain an acoustical engineer to prepare an acoustic analysis that identifies required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to achieve the 45 dBA CNEL interior noise standard of Title 21 and Title 24 of the California Building Code. In addition to the 24-hour interior noise standard, the acoustic report shall detail compliance with the City's interior noise standard of 55 dBA Lmax for single-event noise generated by the loudest 10 percent of aircraft overflights at the John Wayne Airport. Parks within the 60 dBA CNEL noise contour shall include signage indicating their proximity to John Wayne Airport and related airport noise. The acoustic analysis shall be submitted to the Director of Community Development to ensure compliance.
- b. Safety Compatibility Zones – The Landmark Project is located outside of the JWA Runway Protection Zone as depicted in Appendix D of the AELUP. The ALUC has not adopted an Accident Potential Zone for this airport because none could be justified with available data.
 - c. Building Height Restrictions – The height of the office and hotel buildings proposed as part of The Landmark Project are below the airport building height restriction as evidenced by FAA Determinations of "No Hazard to Navigation" issued for the project on January 24 and March 10, 2017. The hotel building, at a height of 206 feet above ground level (AGL) / 253 feet above mean sea level (AMSL), and the office building, at a height of 253 feet AGL / 301 feet AMSL, were found to cause no hazard by the FAA.

Specifically, the FAA Determinations state that the Aeronautical Studies prepared for the proposed project:

"considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact

on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure[s] when combined with the impact of other existing or proposed structures. Th[ese] stud[ies] disclosed that the described structure[s] would have no substantial adverse effect on air navigation."

In addition to the proposed buildings on the project site, there are several other large buildings within the immediate vicinity. Within the JWA Safety Zone surrounding the airport, there are buildings up to 315 AMSL in height. The proposed Landmark Project would be consistent and compatible with other tall development in the vicinity.

Section 2.1.3 allows the ALUC to "utilize the results of an Aeronautical Study, conducted by the FAA pursuant to FAR Part 77.13, in order to determine if a structure will have an adverse effect on the airport or on aeronautical operations." As stated above, the Aeronautical Studies completed as part of the FAA Determinations for the proposed project found that the project would not have adverse impacts on air navigation.

Finally, the April 20th ALUC agenda report states that the hotel penetrates the 206 foot AMSL horizontal surface for JWA by 47 feet and the office building by 95 feet. There is a provision to allow such penetration, via a purchase of air rights from the County of Orange.

(2) The City of Irvine requires that all development proposals meet the City's noise standards of 45 dB CNEL for the interior of buildings classified as belonging to Noise Zone 1 in the Irvine Municipal Code (Section 6-8-204(A)(2)), which is consistent with the standards established to promote the overall goals and objectives of the California airport noise standards.

As discussed above, several measures related to noise impacts are identified for the proposed project. The project proponent will be tasked with demonstrating compliance with each measure prior to the issuance of building permits. Through implementation of the City's Noise Ordinance standards, the project will meet AELUP standards for California airport noise.

(3) The standards set forth in Section 2.1 of the AELUP were adopted to prevent the creation of new noise and safety problems within the vicinity of JWA. The Landmark Project complies with the standards/criteria established in Section 2.1 (Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions), as discussed previously. By requiring project adherence to the established standards in the AELUP, the City has taken measures to assure that risks to people and property on the ground, as well as to the occupants of aircraft, are held to a minimum.

B. It is the purpose of Chapter 3.5 of the State Aeronautics Act to (4) protect the public health, safety and welfare by ensuring the orderly expansion of airports and the (5) adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(4) The AELUP is based upon the continuing operation of JWA as a commercial and general aviation airport facility. The ALUC's authority to formulate land use plans is embodied in the JWA AELUP, which includes criteria in Section 2.1 to protect the public health, safety and welfare by ensuring the orderly expansion of airports. The proposed Landmark Project meets the criteria set forth in AELUP Section 2.1 related to Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions, as discussed previously.

(5) The standards/criteria set forth in Section 2.1 of the AELUP were adopted by the ALUC to minimize the public's exposure to excessive noise and safety hazards. The proposed Landmark Project will be conditioned to require:

- a. sound attenuation of noise impacts to meet City and California airport minimum standards,
- b. "Notice of Airport in Vicinity" to future hotel guests and office tenants,
- c. obstruction lighting and marking consistent with FAA Advisory Circular 70-7460-1,
- d. outdoor signage depicting the presence of operating aircraft in public spaces on the project site, and
- e. an encroachment permit from the County of Orange for construction activities which will pierce the horizontal surface limit for JWA, set at 206 feet AMSL.

C. Based upon these findings, the City Council does hereby override ALUC's decision finding that the Landmark Project is incompatible with the AELUP for JWA.

SECTION 2. The Airport Land Use Commission determined that the project is also inconsistent with the AELUP for Heliports. The Irvine City Council finds as follows:

A. The ALUC found the proposed Landmark Project to be inconsistent with Section 1.2 of the AELUP for Heliports. This section specifically states that the AELUP "intends to safeguard the general welfare of the inhabitants within the vicinities of heliports by reviewing proposed heliport sites to determine if the proposed site is compatible with adjacent existing or proposed uses."

As there are no heliports proposed as part of The Landmark Project, the City Council hereby finds that Section 1.2 of the AELUP for Heliports does not apply and, therefore, overrides this specific finding of inconsistency.

Furthermore, in the April 20, 2017 ALUC agenda report, it is stated that helicopter operations are part of JWA general aviation operations of the proposed project site. While it may be accurate that helicopters currently fly over the project site, there was no evidence provided to show that this is a specific flight path set for helicopters; they may pursue other routes should the project be constructed.

DEPARTMENT OF TRANSPORTATION

DIVISION OF AERONAUTICS – M.S. #40

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*Making Conservation
a California Way of Life.*

June 15, 2017

Ms. Stephanie Frady, AICP, Senior Planner
City of Irvine
Community Development
1 Civic Center Plaza
Irvine, CA 92606-5208

Dear Ms. Frady:

One of the goals of the California Department of Transportation (Caltrans), Division of Aeronautics (Division), is to assist cities, counties, and Airport Land Use Commissions (ALUC) in the development and implementation of policies that protect the safety and general welfare of their communities in which aeronautical activities take place. We encourage collaboration with our partners in the planning process and thank you for including us in the review of the proposed overrule of the Orange County ALUC for the John Wayne Airport (JWA).

On June 1, 2017, the Division received a notification letter from the city of Irvine (City) regarding a proposed overrule for the proposed Landmark Project (Project). The location of the proposed Project is 18872, 18912, and 18952 MacArthur Boulevard, Irvine, California.

On April 20, 2017, the proposed Project was found by the ALUC to be inconsistent with the current Airport Environs Land Use Plans (AELUP) for John Wayne Airport and for Heliports. Both of these AELUPs were amended in 2008. The proposed Project was primarily deemed inconsistent with the AELUP for JWA, sections 1.2 and 2.1.4, and the California Public Utilities Code (PUC), sections 21674 (a) and (b). This is due specifically to the proposed Project's construction of an office building at 301 feet Above Mean Sea Level (AMSL) and a hotel at 253 feet AMSL. Although the FAA concluded that these proposed buildings are an Obstruction but not a Hazard to Air Navigation, the ALUC recommends that the structures' heights be reduced to below 206 feet AMSL, including all rooftop equipment and/or architectural details. For the safe operation of General Aviation (GA) air traffic at JWA, the airspace above 206 feet AMSL needs to be reserved for air navigation. This is in accordance with the AELUP for JWA, section 2.1.3 pages 13-14:

A Determination of No Hazard to Air Navigation does not automatically equate to a Consistency determination by the ALUC. The FAA may also conclude in their aeronautical study that a project is an Obstruction but not a Hazard to Air Navigation. The Commission may find a project Inconsistent based on an Obstruction determination. The commission may utilize criteria for protecting aircraft traffic patterns at individual airports which may differ from those contained in FAR Part 77, should evidence of health, welfare, or air safety surface sufficient to justify such an action.

*"Provide a safe, sustainable, integrated, and efficient transportation system
to enhance California's economy and livability"*

ATTACHMENT 4 TO STAFF REPORT DATED 7/11/17

The Division has reviewed the proposed findings provided by the City and has **determined the findings are insufficient to warrant this proposed overrule.** Specifically, the findings are not consistent with the purposes of the statutes set forth in PUC, section 21670. These findings do not provide substantial evidence that the proposed Project will meet the requirements of PUC, section 21670(a) (1) and (2).

The Division agrees with the ALUC that the proposed Project is inconsistent with the current adopted AELUP for JWA. Specifically, the Division shares very serious concerns regarding safety due to the proposed heights of both the office building at 301 feet AMSL and the hotel at 253 feet AMSL. The Division agrees with both the ALUC and JWA (in a letter to the Orange County Planning Commission dated June 13, 2017) that although the FAA has concluded the proposed Project is an Obstruction but not a Hazard to Air Navigation, there are still significant risks associated with the proposed heights of the office building and hotel. Both the ALUC and JWA cited statistical data that the proposed office building and hotel would significantly penetrate the Federal Aviation Regulation Part 77 "imaginary Horizontal Surfaces" resulting in substantial safety risks due to the GA flight patterns at JWA. The Division also agrees with the ALUC and JWA that for the safe operation of GA air traffic, the airspace above 206 feet AMSL needs to be reserved for air navigation.

Please note: The Division comments are to be included in the public record of any decision to overrule the ALUC.

If you have questions or we may be of further assistance, please contact me at (916) 654-5203 or via email at tony.sordello@dot.ca.gov.

Sincerely,



TONY SORDELLO
Aviation Planner

c: Ms. Kari A. Rigoni, Executive Officer, Orange County Airport Land Use Commission,
3160 Airway Avenue, Costa Mesa, CA 92626-4608



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

June 26, 2017

Stephanie Frady, Senior Planner
City of Irvine
1 Civic Center Plaza
Irvine, CA 92606-5208

SUBJECT: Response to City of Irvine Intent to Overrule Inconsistency Determination for Landmark Project

Dear Ms. Frady:

We are in receipt of the City of Irvine's letter and Draft findings dated May 25, 2017 notifying the Airport Land Use Commission (ALUC) for Orange County of the City's intent to overrule the ALUC's Inconsistency determination on the Landmark Project. In accordance with Section 21676 of the California Public Utilities Code, the ALUC submits the following comments addressing the proposed overrule findings for the above-referenced project.

Background:

On April 20, 2017 the Airport Land Use Commission (ALUC) for Orange County found the proposed Landmark Project Inconsistent with the *Airport Environs Land Use Plans (AELUPs)* for John Wayne Airport (JWA) and Heliports based on the following:

1. That the proposed Landmark Project is Inconsistent with the *AELUP for JWA* per *AELUP* Sections 1.2 and 2.1.4, and PUC Section 21674 which state that the Commission is charged by PUC Section 21674(a) "to assist local agencies in ensuring compatible land uses in the vicinity of ...existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses," and PUC Section 21674(b) "to coordinate planning at the state, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare."
2. That the proposed Landmark Project is Inconsistent with the *AELUP for Heliports* per Section 1.2 which states that the *AELUP* seeks to protect the public from the adverse effects of aircraft noise, to ensure that sites are not proposed for locations where people

and facilities are concentrated, and to ensure that structures or activities in the area would not adversely affect the navigable airspace.

Comments on the City's Section 1A (c) Finding:

Section 1A(c) discusses building height restrictions and the Federal Aviation Administration (FAA) determination of No Hazard to Air Navigation for the proposed office building and hotel.

The ALUC did not concur with the FAA Determinations of No Hazard issued for the proposed project. As stated in Section 2.1.3 of the *AE LUP for JWA*, a Determination of No Hazard to Air Navigation does not automatically equate to a Consistency determination by the ALUC. The FAA concluded in its aeronautical study that the proposed Landmark project is an Obstruction but not a Hazard to Air Navigation. The Commission may find a project Inconsistent based on an Obstruction determination and may utilize criteria for protecting aircraft traffic patterns at individual airports which may differ from those contained in Federal Aviation Regulation (FAR) Part 77, should evidence of health, welfare, or air safety surface sufficient to justify such an action and as noted below (*JWA AE LUP* Section 2.1.3).

The project applicant has proposed a building height of 301 feet above mean sea level (AMSL) for the office tower. The proposed height would exceed obstruction standards of Title 14 of FAR Part 77, by 95 feet for the JWA horizontal surface of 206 feet AMSL. The hotel is proposed at 253 feet AMSL, and exceeds the FAR Part 77 obstruction standards for the JWA horizontal surface by 47 feet. The airspace above 206 feet AMSL is reserved for air navigation.

The City's finding also points out that the FAA determinations disclosed that the described structures would have no substantial adverse effect on air navigation. To demonstrate the potential impacts to air navigation and the safety concerns related to the proposed building heights we have included flight track information above the proposed project site. The exhibits (attached and provided by JWA) show general aviation (GA) operations for Saturday, December 10, 2016, as well as for Tuesday, March 28, 2017 and Saturday, April 1, 2017. The March and April operational flight tracks have corresponding print-outs listing each flight, the time of day and elevation above the proposed project site. On both days, there were flights flying low, between 305 feet and 500 feet. With the proposed building heights of 253 feet AMSL and 301 feet AMSL, the buildings will be in close proximity to airspace used by general aviation aircraft that fly within the general traffic pattern consistently throughout the day. The flight track information suggests it would be prudent to reduce the proposed project building heights. Building the proposed office building project to 301 feet AMSL and the proposed hotel to 253 feet AMSL may impact flight patterns for existing GA operations at JWA and potentially cause safety concerns for aircraft and structures within that airspace.

To ensure the safe operation of JWA, the ALUC recommends that the structure heights be reduced to below 206 feet AMSL, including all rooftop equipment and/or architectural details. For the safe operation of General Aviation air traffic, the airspace above 206 feet AMSL needs to be reserved for air navigation.

In a letter from the California Department of Transportation (Caltrans) Division of Aeronautics dated June 15, 2017 to the City of Irvine, it states:

“The Division agrees with the ALUC that the proposed Project is inconsistent with the current adopted *AELUP for JWA*. Specifically, the Division shares very serious concerns regarding safety due to the proposed heights of both the office building at 301 feet AMSL and the hotel at 253 feet AMSL. The Division agrees with both the ALUC and JWA (in a letter to the City of Irvine Planning Commission dated June 13, 2017) that although the FAA has concluded that proposed Project is an Obstruction but not a Hazard to Air Navigation, there are still significant risks associated with the proposed heights of the office building and hotel. Both the ALUC and JWA cited statistical data that the proposed office building and hotel would significantly penetrate the FAR Part 77 imaginary horizontal surfaces resulting in substantial safety risks due to the GA flight patterns at JWA. The Division also agrees with the ALUC and JWA that for the safe operation of GA air traffic, the airspace above 206 feet AMSL needs to be reserved for air navigation.”

Section 1A (c) also points out that there are several other large buildings surrounding the airport. Some buildings are 315 feet AMSL in height. The finding states that the Landmark Project would be consistent and compatible with other tall development in the vicinity. Please be aware that other tall buildings were found by the ALUC to be Inconsistent with the *AELUP for JWA*, but have gone through the overrule process and received local approvals in the past. Those approvals disregarded the JWA general aviation air traffic pattern, and in some cases caused approach/departure procedures for general aviation operations to be modified. The cumulative effect of more tall buildings may cause additional approach/departure modifications and lead to an unsafe operating environment for general aviation aircraft.

The City’s findings also note that there is a provision to allow penetration of JWA airspace above 206 feet AMSL via a purchase of air rights from the County of Orange. Please be advised that any such proposal to purchase airspace may or may not be approved by the Orange County Board of Supervisors.

Comments on the City’s Section 1B (4) Finding:

Section 1B (4) states that the proposed Landmark Project meets the criteria set forth in *AELUP* Section 2.1 related to Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions. The proposed project does not meet the criteria related to building height restrictions as set forth in *AELUP* Section 2.1.3. Page 14 of the *JWA AELUP* states that the Commission review of individual cases will be guided by FAA FAR Part 77. The proposed project penetrates the FAR Part 77 Obstruction Imaginary Surfaces for JWA. The horizontal surface for JWA is 206 feet AMSL. The airspace above 206 feet AMSL is reserved for air navigation. The proposed office and hotel uses surpass the horizontal surface by 95 feet and 47 feet respectively. To be consistent with the *AELUP* the structure heights should be reduced to below 206 feet AMSL.

In addition, per *JWA AELUP* Section 3.2.6, any object, which by reason of its height or location would interfere with the established, or planned, airport flight procedures, patterns, or navigational systems, is unacceptable to the Commission. As shown in the attached flight track exhibits, general aviation aircraft fly at 305 feet to 500 feet. Building the proposed project could interfere with the general aviation traffic pattern and cause safety concerns for aircraft and structures within that airspace.

Section 1B.(5)e. of the City's findings states that the project would be conditioned to require "an encroachment permit from the County of Orange for construction activities which will pierce the horizontal surface limit for JWA, set at 206 feet AMSL." As noted earlier, this project would require developer purchase of County airspace, not merely an encroachment permit.

Comments on Section 2A Finding:

The City's Section 2A finding discusses that the ALUC found the proposed Landmark Project to be inconsistent with Section 1.2 of the *AELUP for Heliports*. This section specifically states that the *AELUP* intends to safeguard the general welfare of the inhabitant within the vicinities of heliports by reviewing proposed heliport sites to determine if the proposed site is compatible with adjacent existing or proposed uses. Section 1.2 further goes on to say that,

"Specifically, the plan seeks to protect the public from the adverse effects of aircraft noise, to ensure that sites are not proposed for locations where people and facilities are concentrated, and to ensure that structures or activities in the area would not adversely affect the navigable airspace. The implementation of this plan will help forestall urban encroachment on heliports and will allow for their continued operation...[underlining added]"

The *AELUP for Heliports* does consider the placement of structures and activities and their impacts on navigable airspace and not just the siting of heliports themselves. When reviewing proposed development projects, the ALUC considers existing helicopter flight tracks and whether proposed developments would impact helicopter traffic patterns.

Additional Comments:

Please be advised that California Public Utilities Code Section 21678 states: "With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676, 21676.5, or 21677 overrules a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to overrule the commission's action or recommendation."

Also, please be advised that California Business & Professions Code Section 11010 requires the following statement to be included on sale/lease disclosure documents for developments within an ALUC's "Airport Influence Area:"

"NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (For example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."

As stated in the *JWA AELUP*, the ALUC also has the responsibility to consider the broader perspective in matters affecting the public's well-being and the viability of public aviation facilities. The ALUC accomplishes these overall goals by applying its discretion to evaluate individual projects based upon a wide range of facts gathered through public testimony and Commissioners' knowledge, in addition to informative analysis provided by staff.

We urge the City Council of the City of Irvine to take all these comments into consideration in its deliberations prior to deciding whether to overrule the ALUC. Thank you for the opportunity to provide these comments.

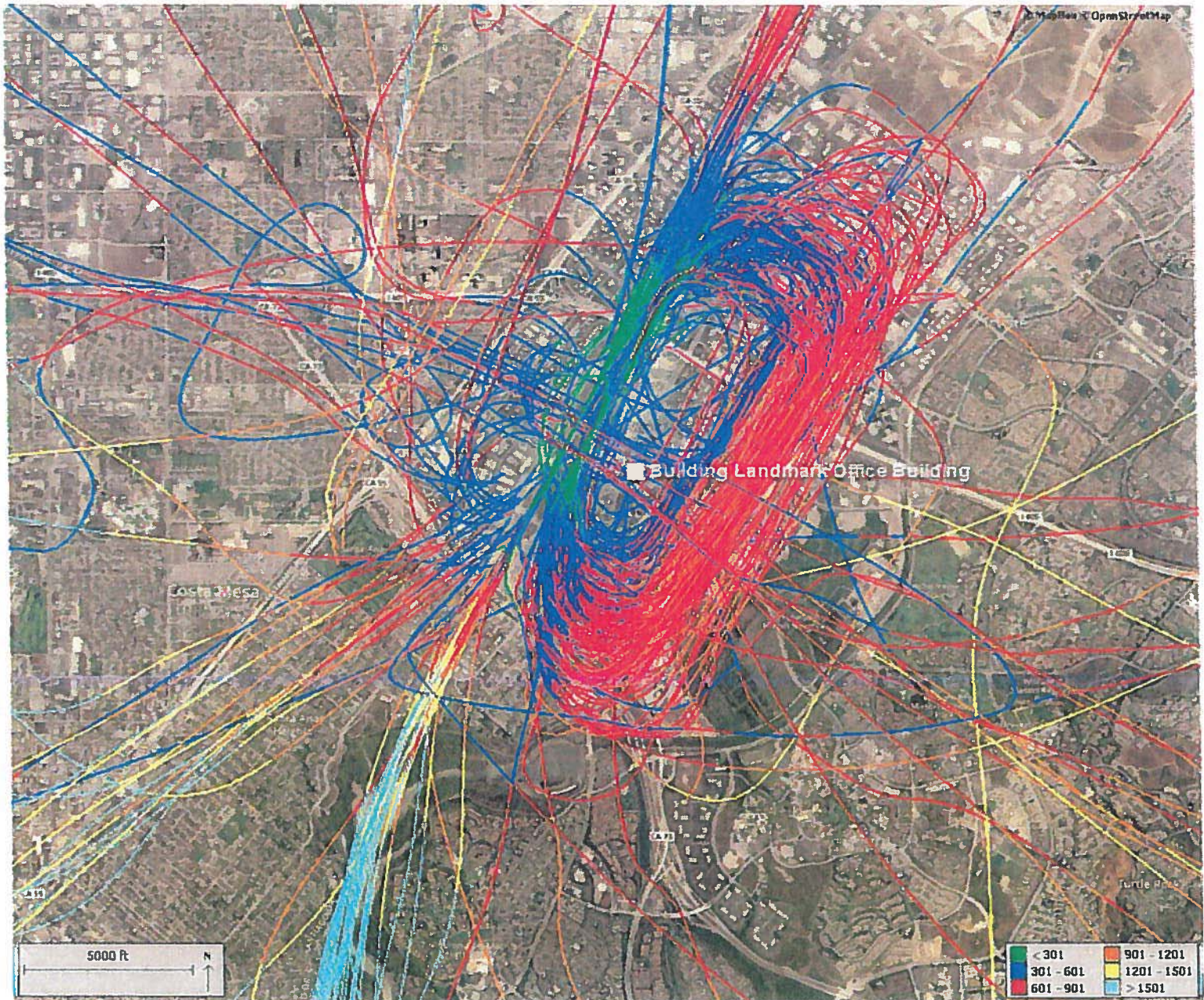
Sincerely,

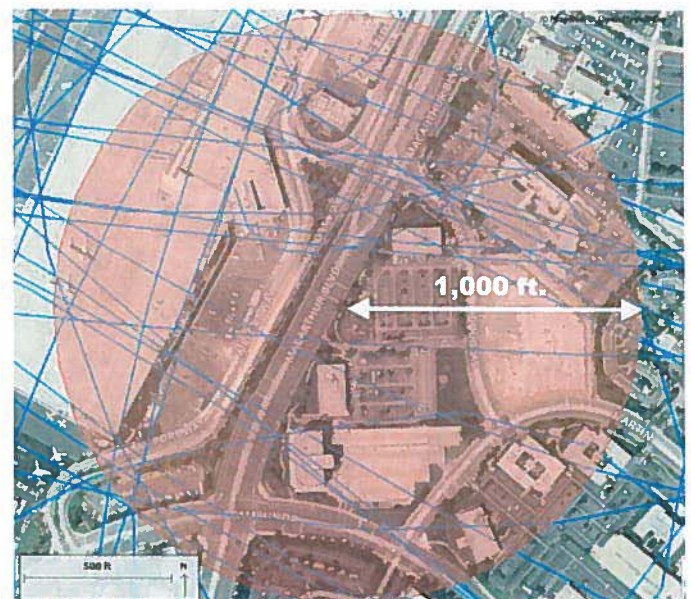
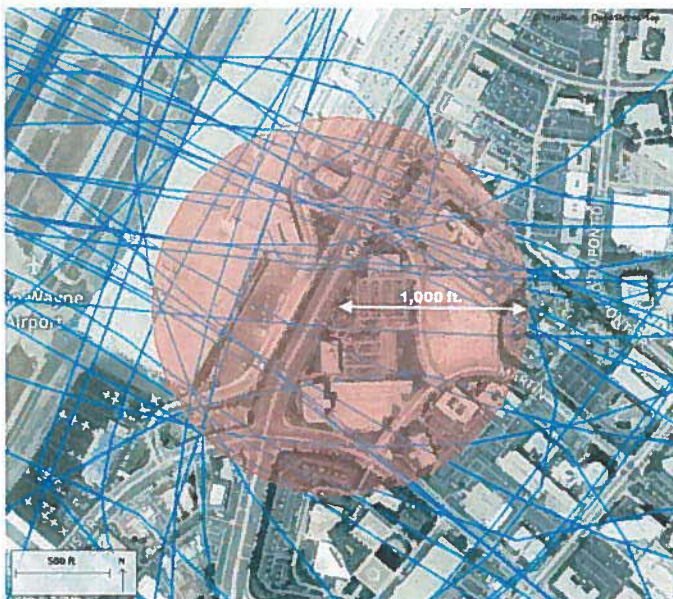


Gerald A. Bresnahan
Chairman

Attached: Flight track information above proposed project site

cc: Members of the Airport Land Use Commission for Orange County
City of Irvine, Members of City Council
Barry R. Rondinella, Director, John Wayne Airport
Tony Sordello, Caltrans/Division of Aeronautics



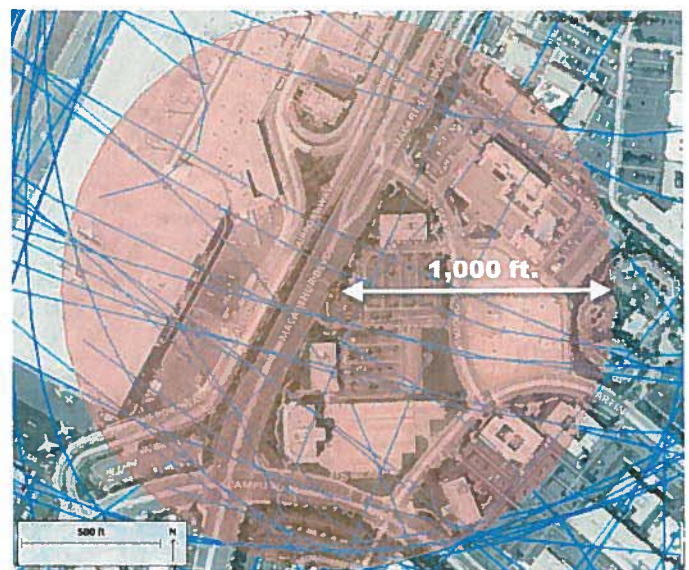


Building Landmark Hotel

Flight Track & Altitude Analysis | March 28, 2017

Coordinates: Latitude: 33-40-25.17N | Longitude: 117-51-45.64W

Actual Date/Time	Flight No	Aircraft Type	Aircraft Category	Altitude (ft) MSL
3/28/2017 07:17	UNKNOWN	UNKN	UNKN	701
3/28/2017 08:32	PV8062H	R22	Heli	604
3/28/2017 09:29	UNKNOWN	UNKN	UNKN	701
3/28/2017 09:32	UNKNOWN	UNKN	UNKN	749
3/28/2017 09:39	UNKNOWN	UNKN	UNKN	463
3/28/2017 10:04	PV25FG	P68	Prop	1,103
3/28/2017 10:10	UNKNOWN	UNKN	UNKN	717
3/28/2017 11:03	PV25FG	P68	Prop	740
3/28/2017 11:28	UNKNOWN	UNKN	UNKN	502
3/28/2017 11:49	PV8062H	R22	Heli	899
3/28/2017 12:39	PV146SB	SR22	Prop	1,985
3/28/2017 13:01	UNKNOWN	C152	Prop	1,292
3/28/2017 13:07	UNKNOWN	UNKN	UNKN	599
3/28/2017 13:55	PV241BM	EVSS	UNKN	1,271
3/28/2017 14:37	UNKNOWN	UNKN	UNKN	667
3/28/2017 14:38	PV5364K	C172	Prop	1,279
3/28/2017 14:51	UNKNOWN	UNKN	UNKN	505
3/28/2017 15:52	UNKNOWN	UNKN	UNKN	628
3/28/2017 15:57	UNKNOWN	UNKN	UNKN	587
3/28/2017 16:09	UNKNOWN	UNKN	UNKN	683
3/28/2017 16:10	UNKNOWN	UNKN	UNKN	638
3/28/2017 16:52	UNKNOWN	UNKN	UNKN	494
3/28/2017 17:13	UNKNOWN	UNKN	UNKN	700
3/28/2017 17:36	PV42GH	HELO	Heli	317
3/28/2017 17:49	PV236MA	DA40	Prop	1,053
3/28/2017 18:12	PV143AL	XL2	UNKN	1,233
3/28/2017 18:21	PV84347	C172	Prop	1,407
3/28/2017 18:29	UNKNOWN	UNKN	UNKN	384
3/28/2017 19:32	UNKNOWN	UNKN	UNKN	631
3/28/2017 22:46	UNKNOWN	UNKN	UNKN	436



Building Landmark Hotel

Flight Track & Altitude Analysis | April 1, 2017

Coordinates: Latitude: 33-40-25.17N | Longitude: 117-51-45.64W

Actual Date/Time	Flight No	Aircraft Type	Aircraft Category	Altitude (ft) MSL
4/1/2017 11:53	PV484HR	C182	Prop	846
4/1/2017 12:56	PV2NS	PA31	Prop	367
4/1/2017 14:28	PV148DW	C206	Prop	949
4/1/2017 15:55	PV7257P	C172	Prop	786
4/1/2017 12:17	PV9282Q	BE55	Prop	1,134
4/1/2017 08:37	PV98UA	P28A	Prop	925
4/1/2017 09:54	PV6832D	C175	Prop	1,096
4/1/2017 11:14	UNKNOWN	UNKN	UNKN	702
4/1/2017 11:32	PV184SD	AS50	Heli	804
4/1/2017 12:28	UNKNOWN	UNKN	UNKN	1,434
4/1/2017 12:09	UNKNOWN	UNKN	UNKN	937
4/1/2017 12:49	UNKNOWN	UNKN	UNKN	377
4/1/2017 13:14	PV4665B	C152	Prop	1,341
4/1/2017 13:30	PV535C	M20P	Prop	1,201
4/1/2017 13:37	PV901Z	PTS1	Prop	987
4/1/2017 13:37	UNKNOWN	UNKN	UNKN	384
4/1/2017 16:09	UNKNOWN	UNKN	UNKN	814
4/1/2017 16:44	PV204LP	BE33	Prop	1,180
4/1/2017 16:53	PV96808	C172	Prop	1,428
4/1/2017 17:00	UNKNOWN	UNKN	UNKN	305
4/1/2017 17:07	UNKNOWN	UNKN	UNKN	693
4/1/2017 17:16	PV313BC	J3	Prop	607
4/1/2017 17:32	UNKNOWN	UNKN	UNKN	462
4/1/2017 17:38	PV558CD	SR22	Prop	1,224
4/2/2017 00:54	PV184SD	AS50	Heli	499



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5171-OE

Issued Date: 03/10/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Office Building
Location:	Irvine, CA
Latitude:	33-40-23.46N NAD 83
Longitude:	117-51-44.00W
Heights:	48 feet site elevation (SE) 253 feet above ground level (AGL) 301 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 253 feet above ground level (301 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 09/10/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 09, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on April 19, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5171-OE.

Signature Control No: 294326385-325067374

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5171-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 253-foot above ground level (agl)/301-foot above mean sea level (amsl) Office Building Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.34 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Office Building Structure 48 feet amsl.

The sponsor has voluntarily lowered the structure height from the originally filed proposal to not exceed 301 feet amsl and provided 1A certified surveys of the structure latitude/longitude corner points and site elevations, in order to mitigate any adverse effect upon instrument procedural operations at SNA.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.17(a)(2) by 45 feet, a height more than 200 feet above the SNA Field Elevation within 3 nautical miles of the airport reference point.

Section 77.19(a) by 95 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an aviation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange agrees to negotiate this aviation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

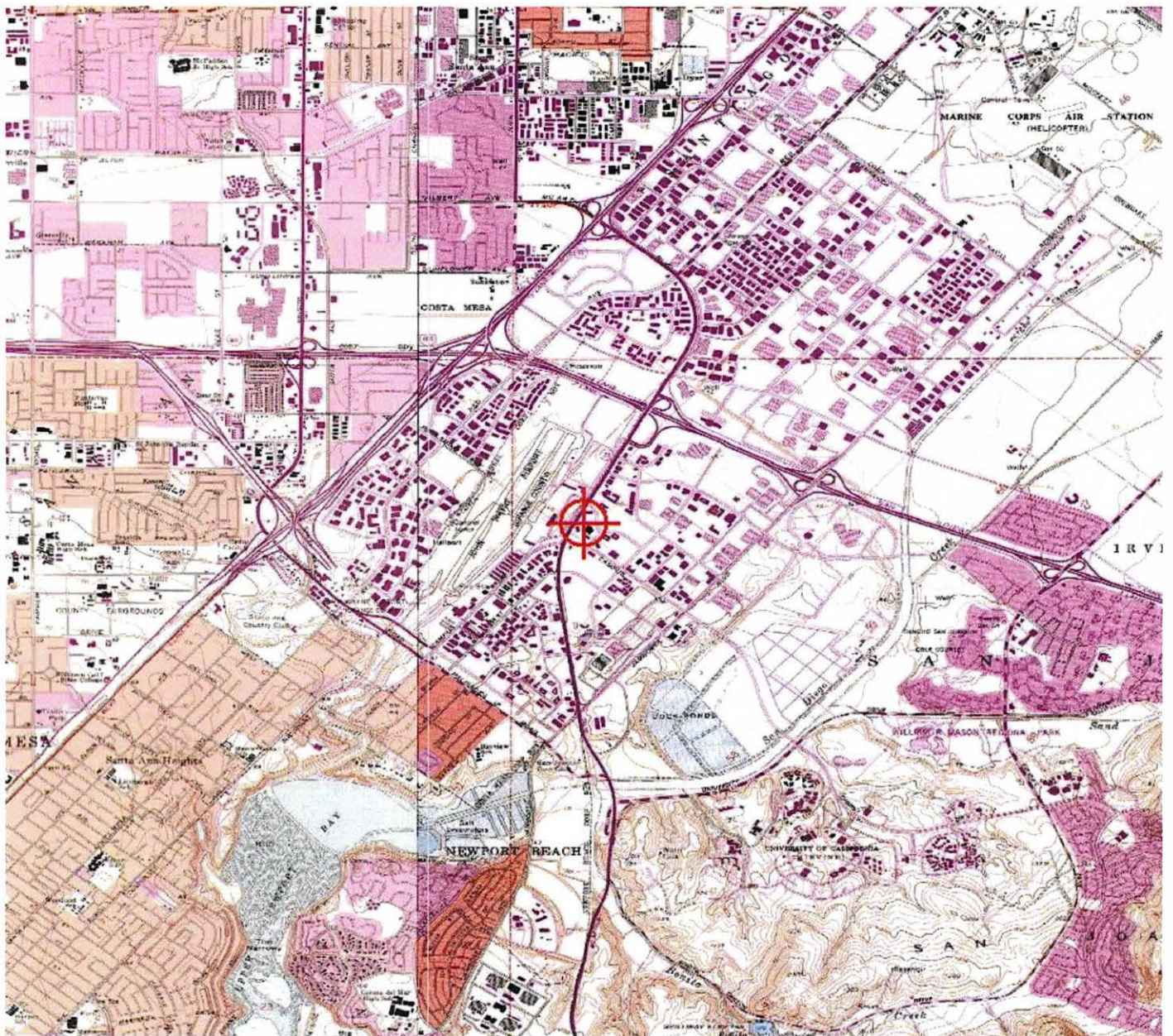
The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.

TOPO Map for ASN 2016-AWP-5171-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5172-OE

Issued Date: 03/10/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Office Building
Location:	Irvine, CA
Latitude:	33-40-23.57N NAD 83
Longitude:	117-51-41.49W
Heights:	48 feet site elevation (SE) 253 feet above ground level (AGL) 301 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 253 feet above ground level (301 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 09/10/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 09, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on April 19, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5172-OE.

Signature Control No: 294326386-325067372

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5172-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 253-foot above ground level (agl)/301-foot above mean sea level (amsl) Office Building Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.34 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Office Building Structure 48 feet amsl.

The sponsor has voluntarily lowered the structure height from the originally filed proposal to not exceed 301 feet amsl and provided 1A certified surveys of the structure latitude/longitude corner points and site elevations, in order to mitigate any adverse effect upon instrument procedural operations at SNA.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.17(a)(2) by 45 feet, a height more than 200 feet above the SNA Field Elevation within 3 nautical miles of the airport reference point.

Section 77.19(a) by 95 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an aviation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange agrees to negotiate this aviation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

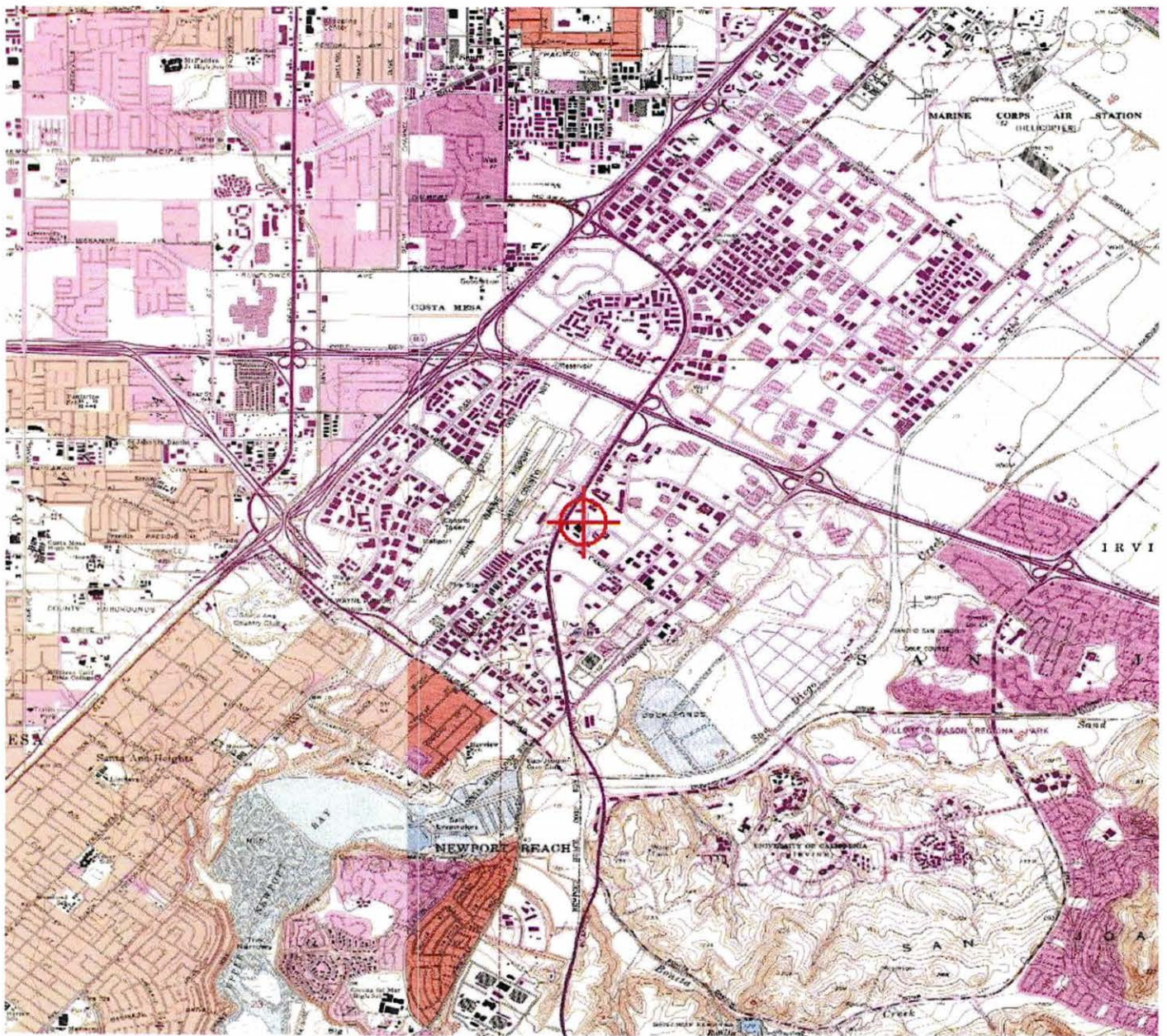
The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.

TOPO Map for ASN 2016-AWP-5172-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5173-OE

Issued Date: 03/10/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Office Building
Location:	Irvine, CA
Latitude:	33-40-22.16N NAD 83
Longitude:	117-51-44.63W
Heights:	48 feet site elevation (SE) 253 feet above ground level (AGL) 301 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 253 feet above ground level (301 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 09/10/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 09, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on April 19, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5173-OE.

Signature Control No: 294326387-325067373

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5173-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 253-foot above ground level (agl)/301-foot above mean sea level (amsl) Office Building Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.34 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Office Building Structure 48 feet amsl.

The sponsor has voluntarily lowered the structure height from the originally filed proposal to not exceed 301 feet amsl and provided 1A certified surveys of the structure latitude/longitude corner points and site elevations, in order to mitigate any adverse effect upon instrument procedural operations at SNA.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.17(a)(2) by 45 feet, a height more than 200 feet above the SNA Field Elevation within 3 nautical miles of the airport reference point.

Section 77.19(a) by 95 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an aviation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange agrees to negotiate this aviation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
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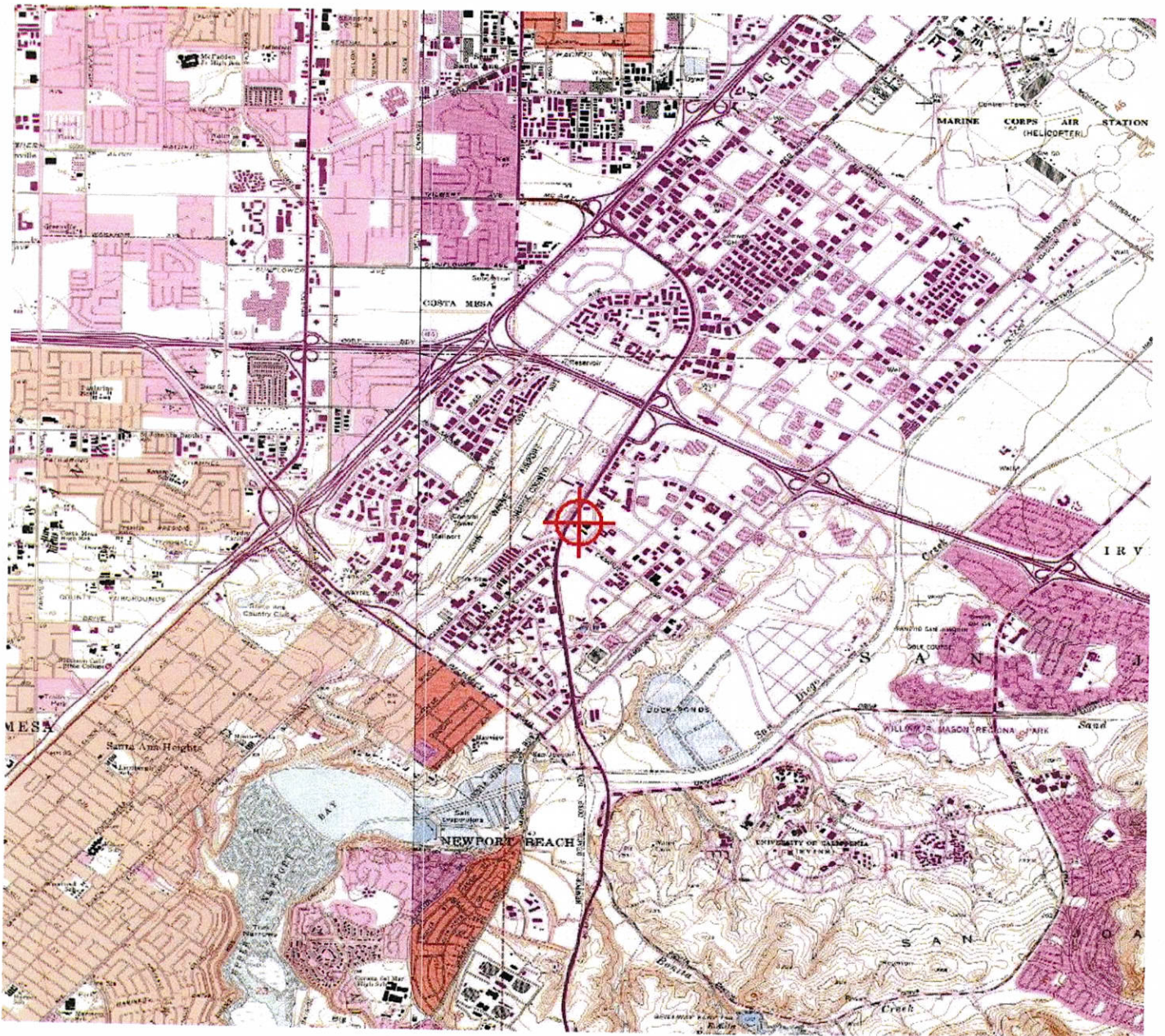
The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

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TOPO Map for ASN 2016-AWP-5173-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5174-OE

Issued Date: 03/10/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Office Building
Location:	Irvine, CA
Latitude:	33-40-22.28N NAD 83
Longitude:	117-51-41.41W
Heights:	48 feet site elevation (SE) 253 feet above ground level (AGL) 301 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

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- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 09, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

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This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5174-OE.

Signature Control No: 294326388-325067371

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5174-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 253-foot above ground level (agl)/301-foot above mean sea level (amsl) Office Building Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.34 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Office Building Structure 48 feet amsl.

The sponsor has voluntarily lowered the structure height from the originally filed proposal to not exceed 301 feet amsl and provided 1A certified surveys of the structure latitude/longitude corner points and site elevations, in order to mitigate any adverse effect upon instrument procedural operations at SNA.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.17(a)(2) by 45 feet, a height more than 200 feet above the SNA Field Elevation within 3 nautical miles of the airport reference point.

Section 77.19(a) by 95 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an aviation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange agrees to negotiate this aviation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

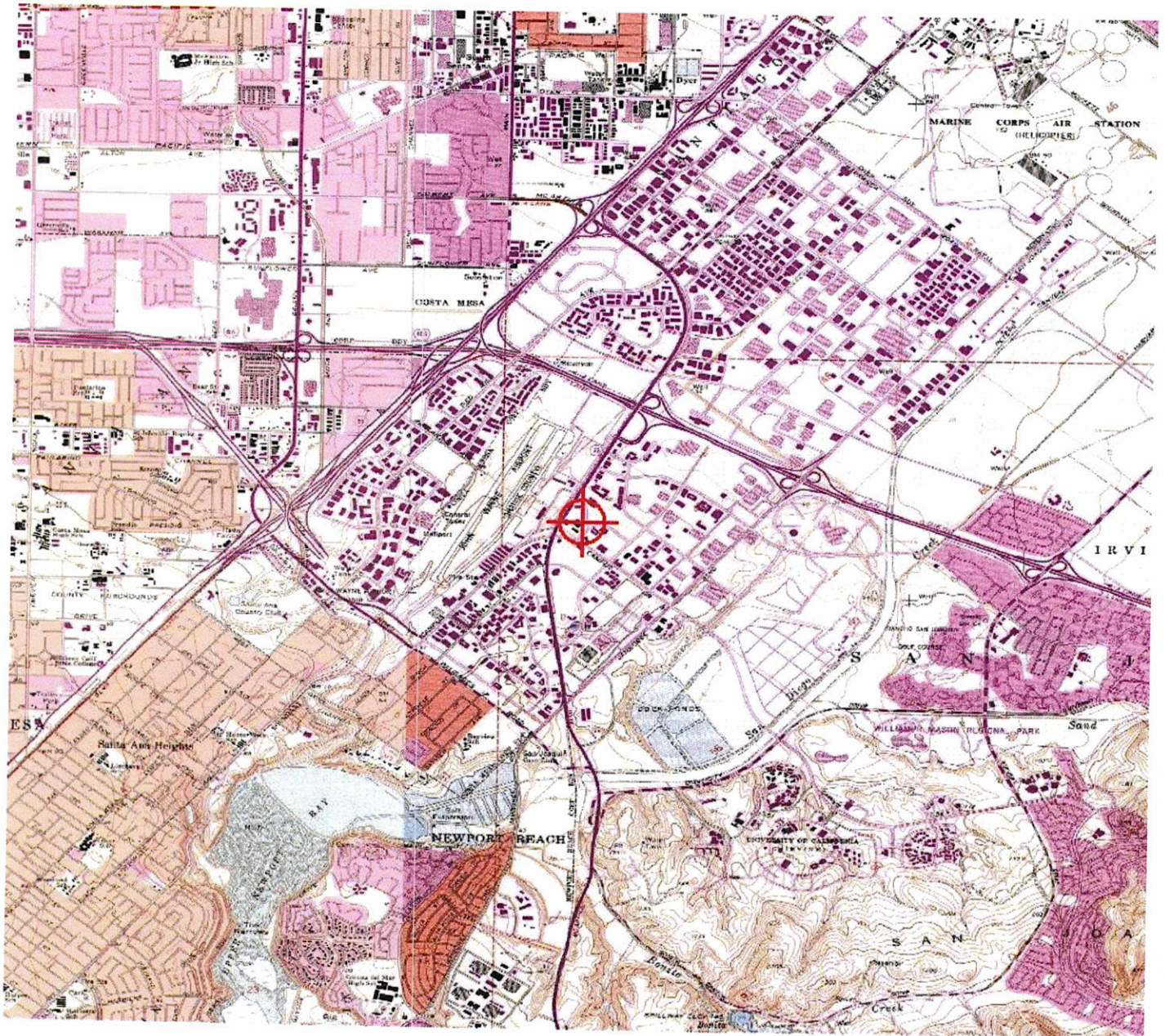
The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.

TOPO Map for ASN 2016-AWP-5174-OE





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Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5166-OE

Issued Date: 01/24/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Hotel
Location:	Irvine, CA
Latitude:	33-40-25.17N NAD 83
Longitude:	117-51-45.64W
Heights:	47 feet site elevation (SE) 206 feet above ground level (AGL) 253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 206 feet above ground level (253 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/24/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 23, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on March 05, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5166-OE.

Signature Control No: 294326361-320079555

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5166-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 15-story 206-foot above ground level (agl)/253-foot above mean sea level (amsl) Hotel Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.30 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Hotel Structure 47 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 47 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an avigation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange negotiates this avigation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

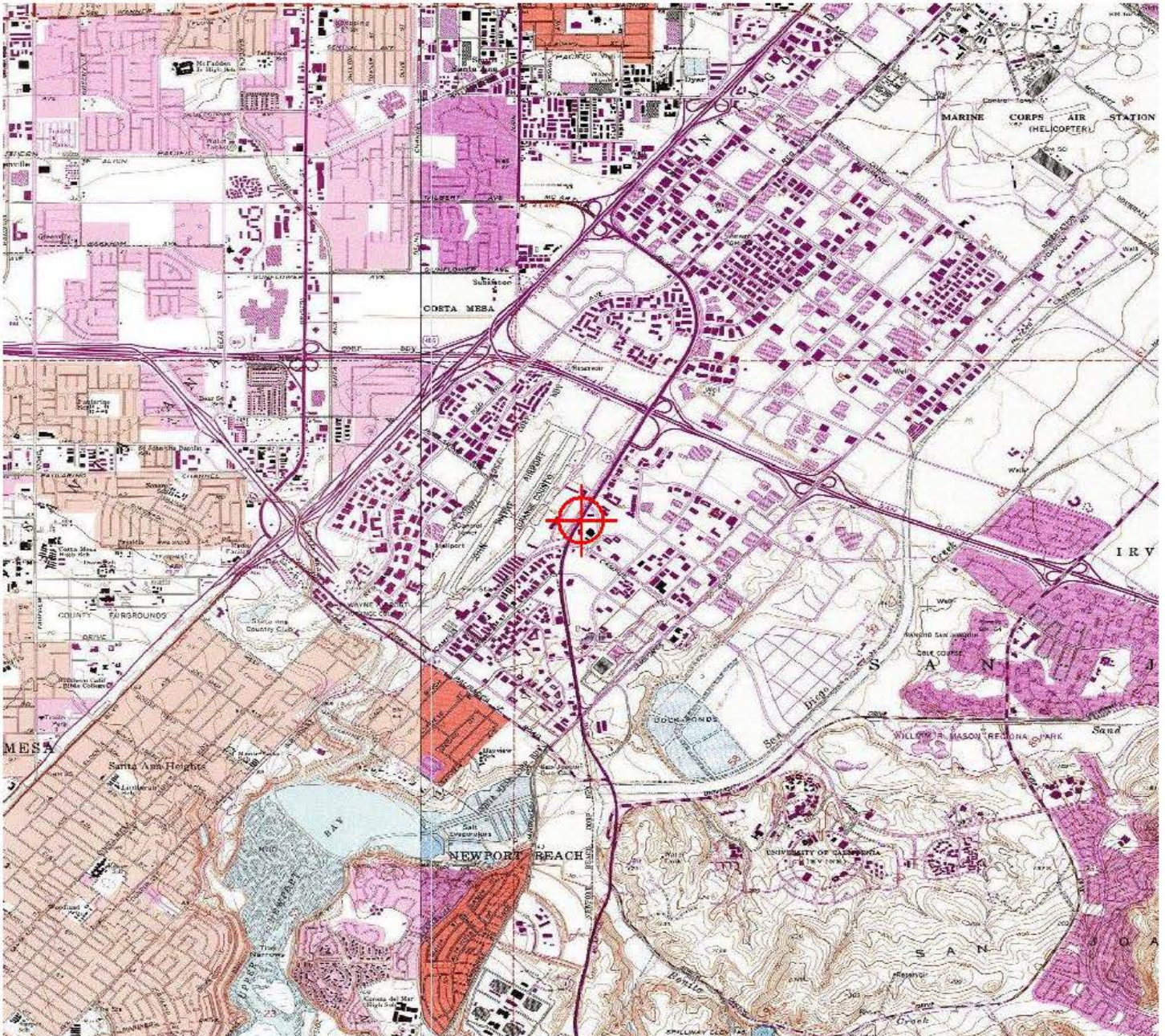
- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5167-OE

Issued Date: 01/24/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Hotel
Location:	Irvine, CA
Latitude:	33-40-26.58N NAD 83
Longitude:	117-51-44.40W
Heights:	47 feet site elevation (SE) 206 feet above ground level (AGL) 253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 206 feet above ground level (253 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/24/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 23, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on March 05, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5167-OE.

Signature Control No: 294326362-320079557

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5167-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 15-story 206-foot above ground level (agl)/253-foot above mean sea level (amsl) Hotel Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.30 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Hotel Structure 47 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 47 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an avigation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange negotiates this avigation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

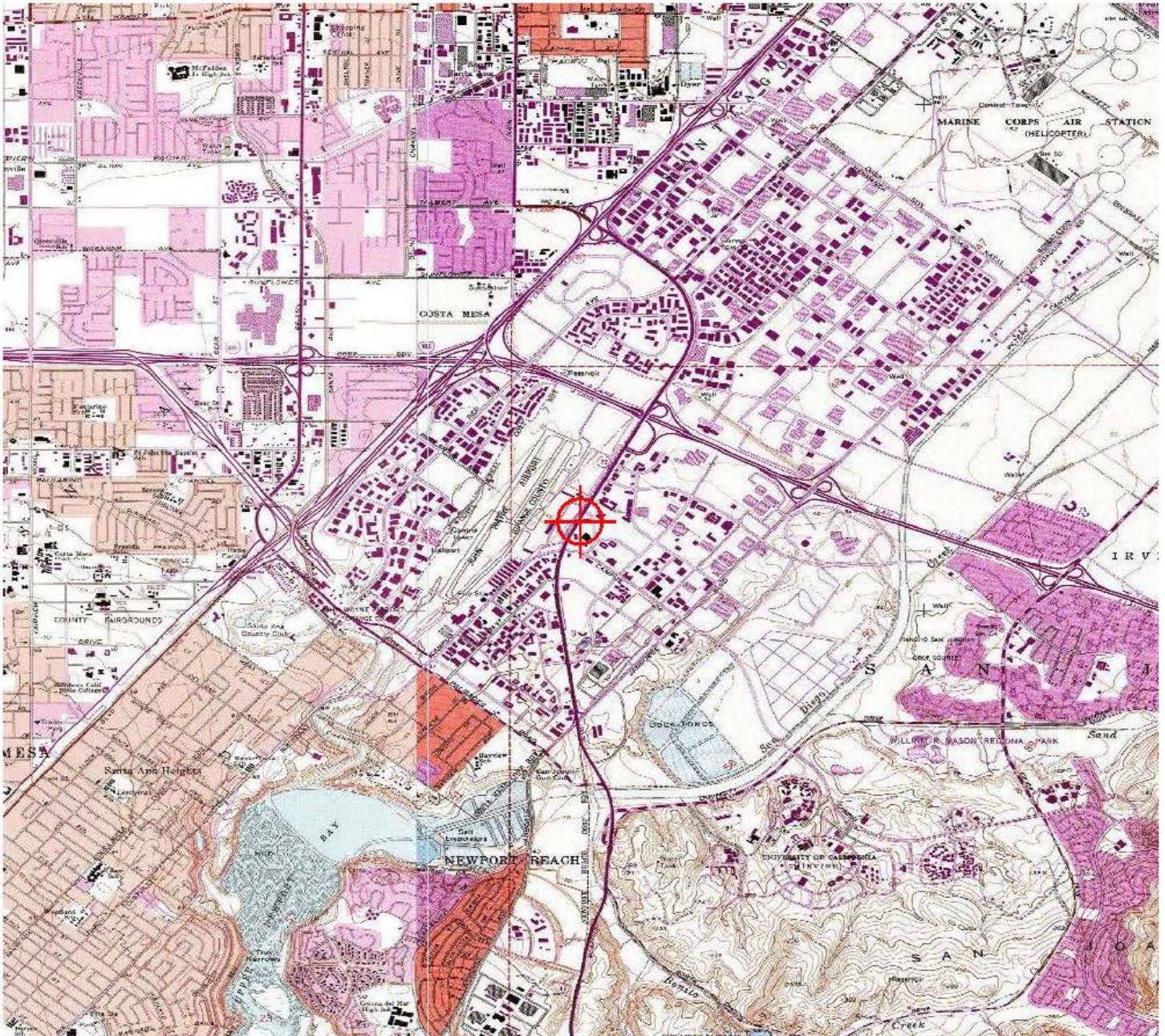
- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5168-OE

Issued Date: 01/24/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Hotel
Location:	Irvine, CA
Latitude:	33-40-26.64N NAD 83
Longitude:	117-51-42.34W
Heights:	47 feet site elevation (SE) 206 feet above ground level (AGL) 253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 206 feet above ground level (253 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/24/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 23, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on March 05, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5168-OE.

Signature Control No: 294326363-320079558

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5168-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 15-story 206-foot above ground level (agl)/253-foot above mean sea level (amsl) Hotel Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.30 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Hotel Structure 47 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 47 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an avigation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange negotiates this avigation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

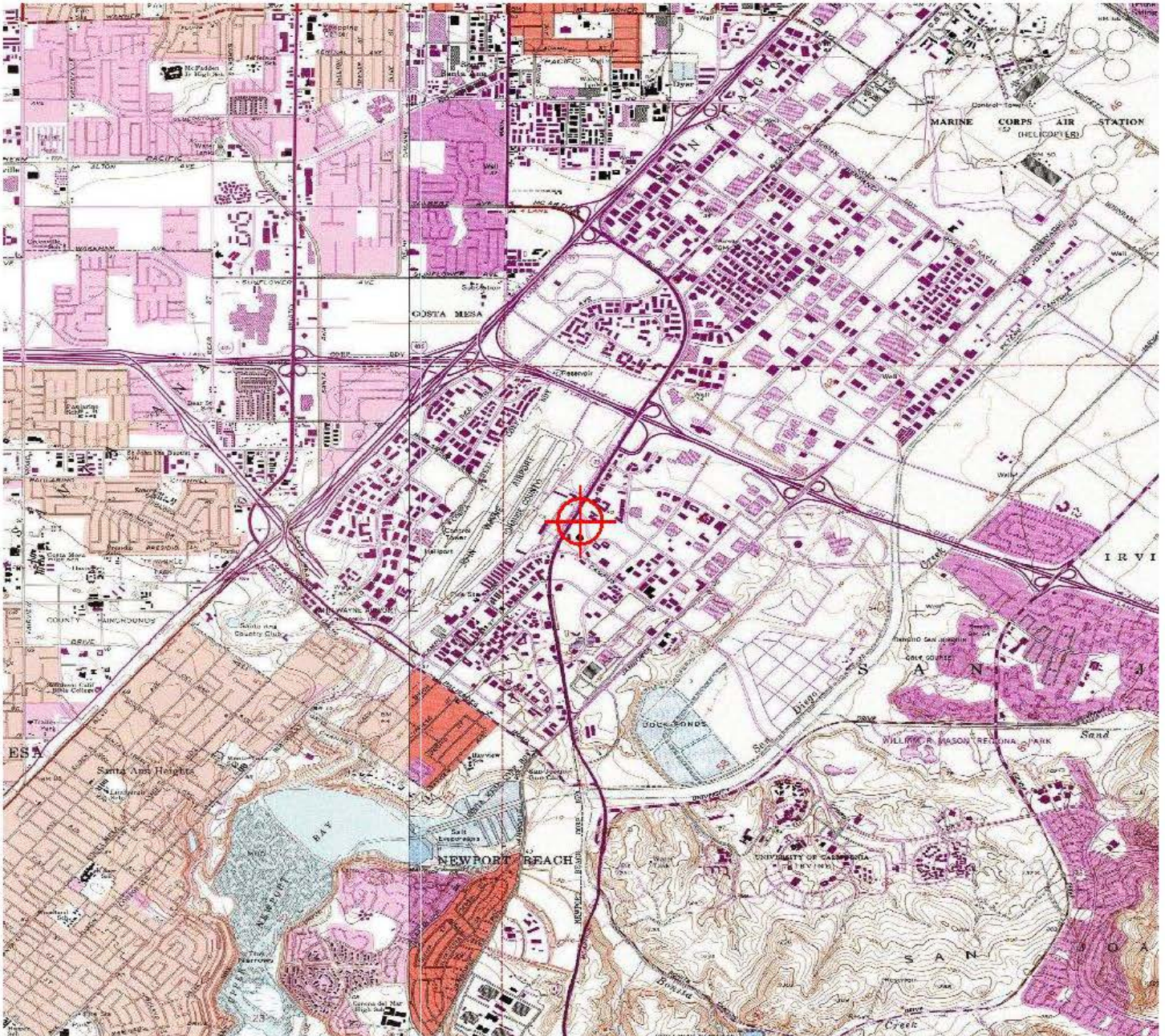
- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5169-OE

Issued Date: 01/24/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Hotel
Location:	Irvine, CA
Latitude:	33-40-26.14N NAD 83
Longitude:	117-51-42.80W
Heights:	47 feet site elevation (SE) 206 feet above ground level (AGL) 253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 206 feet above ground level (253 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/24/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 23, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on March 05, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5169-OE.

Signature Control No: 294326364-320079554

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5169-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 15-story 206-foot above ground level (agl)/253-foot above mean sea level (amsl) Hotel Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.30 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Hotel Structure 47 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 47 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an avigation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange negotiates this avigation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

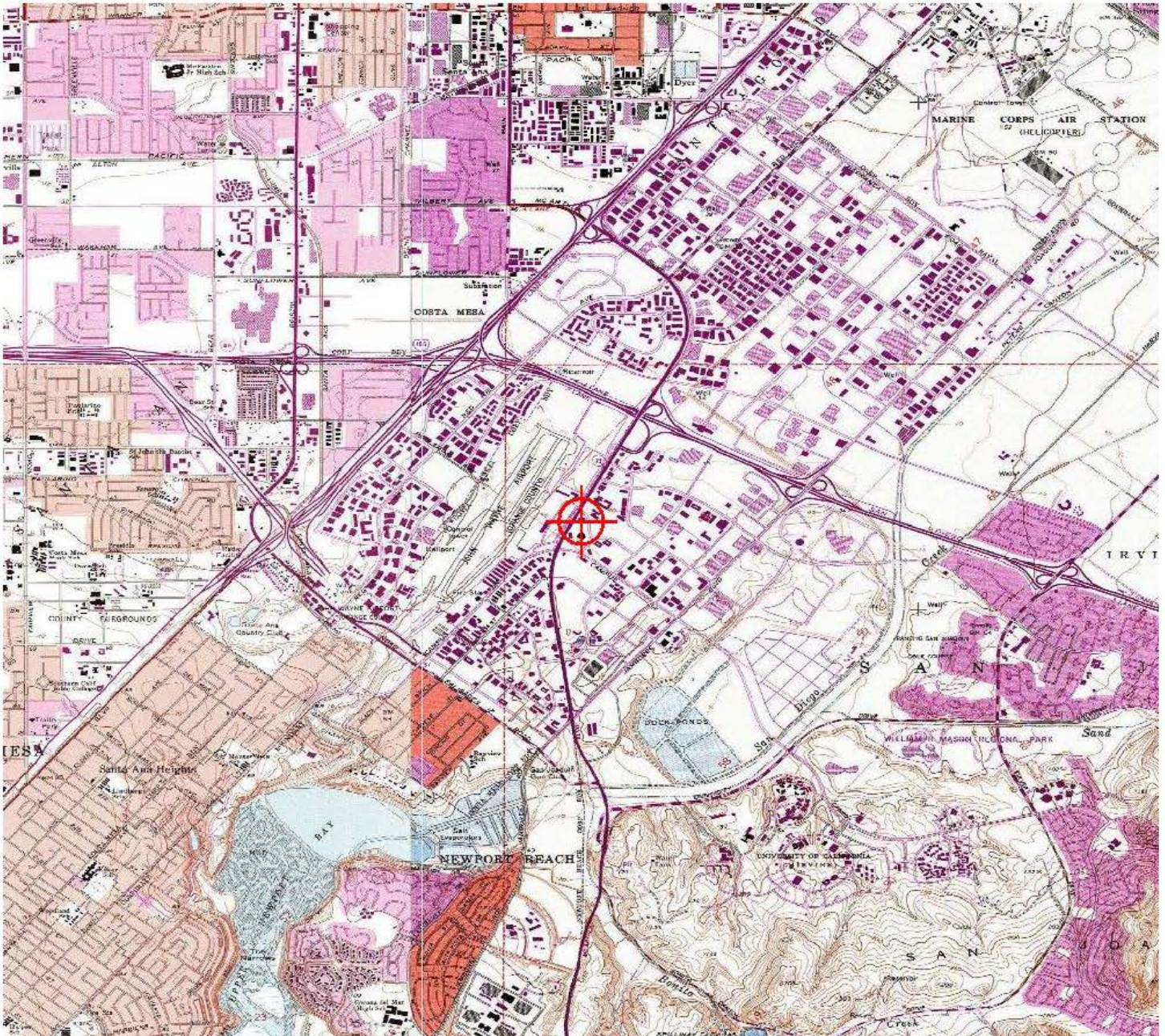
- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2016-AWP-5170-OE

Issued Date: 01/24/2017

Hope Fazio
Great Far East, The Investment & Management Co.
7700 Irvine Center Dr.
Suite #620
Irvine, CA 92618

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Landmark Hotel
Location:	Irvine, CA
Latitude:	33-40-25.25N NAD 83
Longitude:	117-51-44.72W
Heights:	47 feet site elevation (SE) 206 feet above ground level (AGL) 253 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 206 feet above ground level (253 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/24/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 23, 2017. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on March 05, 2017 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-5170-OE.

Signature Control No: 294326365-320079556

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2016-AWP-5170-OE

The proposal, submitted by Great Far East, The Investment & Management Company, will construct a 15-story 206-foot above ground level (agl)/253-foot above mean sea level (amsl) Hotel Structure on a site bound by Macarthur Boulevard, Douglas, Martin, and Campus Drive, in Irvine, California. This site is located approximately 0.30 nautical miles (NM) southeast of the John Wayne Orange County (SNA) airport reference point and abeam the runways 20L/R and 02R/L. SNA is the closest public-use landing area. The SNA Field Elevation (FE) is 56 feet above mean sea level (amsl). The site elevation of this proposed Hotel Structure 47 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 47 feet, a height exceeding the SNA Horizontal Surface.

Details of the proposal were distributed as Public Notice in order to gather aeronautical information from interested aviation users and other members of the public. No objections, regarding the structure, were received from the Public Notice distribution. A comment was received from the John Wayne Airport. The comment noted that the structure height is identified as an obstruction under FAR Part 77 and recommended that the structure be reduced to a height not exceeding 206 feet amsl, which would put it below the SNA Horizontal Surface. However, the comment noted that since the County of Orange owns the airspace above 206 feet amsl, encroachment into this airspace could only be approved by the County of Orange. (This is interpreted by the FAA as the sponsor of this project will have to purchase an avigation easement for the development of the site from the County of Orange). (The FAA has no direct bearing, influence, or connection on whether the County of Orange negotiates this avigation easement.) The comment continued to note that projects surpassing this elevation must also fully comply with the referral requirements of the Airport Land Use Commission (ALUC) for Orange County, and with all conditions of approval imposed or recommended by the FAA and ALUC.

Temporary equipment to erect this structure will be evaluated separately for its potential to have impact on the navigable airspace when construction equipment is filed at a later date.

FAA evaluation finds that the adverse effect of this structure is known. There is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for SNA. Therefore, no further attempt to negotiate the proposed structures to lower heights was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

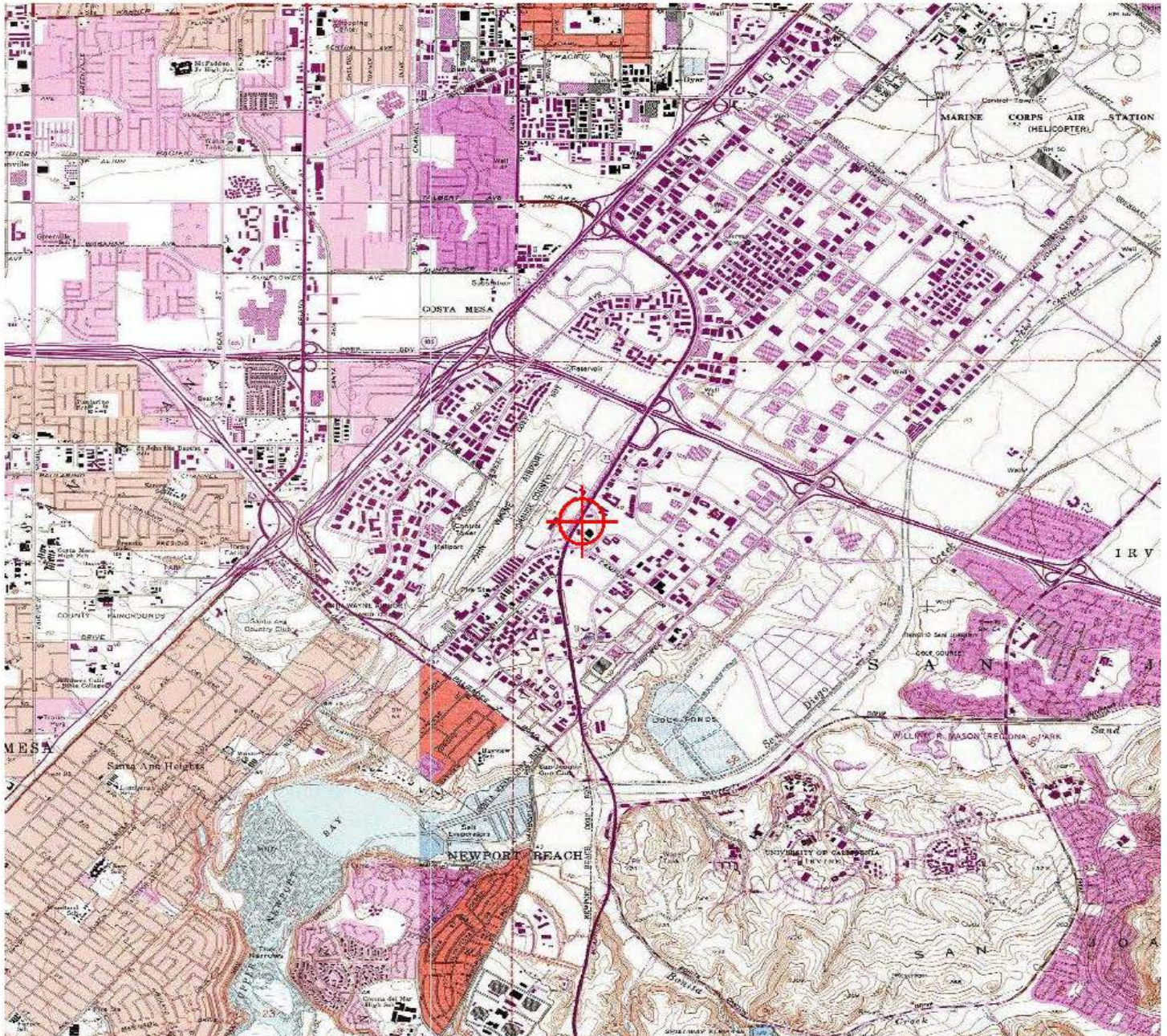
- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including SNA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent, abeam the runways, and thereby not in the climb/descent area, have reasonable clearance above this structure.
- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- The structure shall be appropriately red obstruction lighted to make it more conspicuous to airmen flying in VFR weather conditions between sunset and sunrise.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, aviation easements, or ordinances, or local zoning maximum heights.



California Code, Public Utilities Code - PUC § 21670

(a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors of the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by paragraphs (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all of the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent him or her in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation" means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport.

(f) It is the intent of the Legislature to clarify that, for the purposes of this article, that special districts, school districts, and community college districts are included among the local agencies that are subject to airport land use laws and other requirements of this article.

PUC § 21676

(b) Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the public record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

PUC § 21676.5

(a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require that the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific

plan is revised or the specific findings are made. If, in the determination of the commission, an action, regulation, or permit of the local agency is inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that individual projects shall be reviewed by the commission.

Source: <http://codes.findlaw.com/ca/public-utilities-code>

GREAT FAR EAST
COMPENDIUM OF STATUTES AND REGULATIONS
REGARDING FEDERAL PREEMPTION OF AIRPORT
LAND USE COMMISSION SAFETY CONCERNS

I. FEDERAL LAW PREEMPTS STATE AND LOCAL LAW, WHERE, AS HERE, CONGRESS HAS EXPRESSLY PREEMPTED BY STATUTE; WHERE THERE ARE CONFLICTING STATE OR LOCAL LAWS; OR A LOCAL LAW FALLS WITHIN A FIELD FULLY OCCUPIED BY FEDERAL LAW

A. Supremacy Clause of U.S. Constitution, Article VI, Clause 2

“This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.”

B. 49 U.S.C. § 40103(a) (1)

“49 U.S.C. § 40103. Sovereignty and use of airspace

(a) Sovereignty and public right of transit.

(1) The United States Government has exclusive sovereignty of airspace of the United States. ...”

C. Burbank v. Lockheed, 411 U.S. 624 (1973)

“[T]he Federal Aviation Act, 49 U. S. C. § 1508 (a) [since recodified], provides in part, ‘The United States of America is declared to possess and exercise complete and exclusive national sovereignty in the airspace of the United States’ By §§ 307 (a), (c) of the Act, 49 U. S. C. §§ 1348 (a), (c), the Administrator of the Federal Aviation Administration (FAA) has been given broad authority to regulate the use of the navigable airspace, ‘in order to insure the safety of aircraft and the efficient utilization of such airspace . . .’ and ‘for the protection of persons and property on the ground’” *Id.* at 626-27.

“We are not at liberty to diffuse the powers given by Congress to FAA . . . by letting the States or municipalities in on the planning. If that change is to be made, Congress alone must do it.” *Id.* at 640.

D. Montalvo v. Spirit Airlines, 508 F.3d 464 (9th Cir. 2007)

“[T]he FAA preempts the entire field of aviation safety through implied field preemption. The FAA [Federal Aviation Act] and regulations promulgated pursuant to it establish complete and thorough safety standards for air travel, which are not subject to supplementation by, or variation among, state laws.” *Id.* at 468.

E. Olympic Pipeline Co. v. City of Seattle, 437 F.3d 872 (9th Cir. 2006).

“The Supremacy Clause of Article VI of the United States Constitution grants Congress the power to preempt state or local law.” *Id.* at 877.

II. STATE LAW AND THE COUNTY’S AELUP CONFIRM THE PREEMPTIVE AUTHORITY OF FEDERAL LAW AND REGULATION

A. Chevron v. National Resources Defense Council, 467 U.S. 837 (1984) – Federal Regulations Get Particular Deference

“We have long recognized that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer, and the principle of deference to administrative interpretations ‘has been consistently followed by this Court whenever decision as to the meaning or reach of a statute has involved reconciling conflicting policies, and a full understanding of the force of the statutory policy in the given situation has depended upon more than ordinary knowledge respecting the matters subjected to agency regulations.’” [Citations omitted].” *Id.* at 844.

B. Pub. Util. Code § 21240

“This state recognizes the authority of the federal government to regulate the operation of aircraft and to control the use of the airways, and nothing in this act shall be construed to give the department the power to so regulate and control safety factors in the operation of aircraft or to control use of the airways. This section does not affect the state's power to regulate the intrastate rates of common carriers by air, and such power is hereby reserved to the state.”

C. **14 C.F.R. 77.9(e) – Sets standards for determining obstructions to air navigation.**

“(e) You do not need to file notice for construction or alteration of:
(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;
...”

D. **AELUP, § 2.1.3 – State Law Adopts Federal Standards with Respect to Analysis of Obstructions Specifically**

“Building Height Restrictions

[1] In adopting criteria for building height restrictions in the vicinities of airports, the Commission considered only one standard and that was Federal Aviation Regulations Part 77 (FAR Part 77) entitled, "Objects Affecting Navigable Airspace." These regulations are the only definitive standard available and the standard most generally used. In order to ensure that buildings which might affect the continued operations of airports are not built in their vicinities, the Commission has incorporated the standards for determining obstructions and FAR Part 77 definitions, of the "imaginary and notification surfaces" for airports, as the guidelines for height limits. To coincide with this regulation, the ALUC also requires notification for such projects regardless of where within Orange County the project would be located. This may or may not result in referral of a project to the ALUC.

The "imaginary surfaces" are defined by means of elevations, heights and slopes in relation to individual airports, the spaces above which are reserved to air navigation. In addition to the "imaginary surfaces," the Commission will use all of the FAR Part 77.23 standards along with the results of FAA aeronautical studies, or other studies deemed necessary by the Commission, in order to determine if a structure is an "obstruction." Building or structural heights are limited to the distance between the ground elevation of the site and an elevation that has been determined will not adversely affect an airport or aeronautical operations, nor navigational-aid siting criteria, including interference with navigational-aids or published flight paths and procedures. The FAA uses the 100:1 notification surface to help identify projects that may interfere with airport operations. A project exceeding the 100:1 notification surface is not necessarily incompatible, but

rather requires that the FAA be notified, so they can conduct an aeronautical study. Projects that penetrate the 100:1 notification surface must file Form 7460-1 with the FAA. See Appendix D to view the FAR Part 77 Notification Area and Obstruction Imaginary Surfaces for JWA.

In the aeronautical studies, the FAA determines if a project is considered an Obstruction and if a project is determined to be a Hazard to Air Navigation. A Determination of No Hazard to Air Navigation does not automatically equate to a Consistency determination by the ALUC. The FAA may also conclude in their aeronautical study that a project is an Obstruction but not a Hazard to Air Navigation. The Commission may find a project Inconsistent based on an Obstruction determination. The Commission may utilize criteria for protecting aircraft traffic patterns at individual airports which may differ from those contained in FAR Part 77, should evidence of health, welfare, or air safety surface sufficient to justify such an action.¹

[2] Commission review of individual cases will be guided by FAR Part 77, and by FAA Advisory Circular No. 150/5190-4A, as published on December 14, 1987 and entitled "A Model Zoning Ordinance to Limit Height of Objects Around Airports" (Appendix E). This document has been promulgated by the FAA expressly to guide local agencies in the preparation of specialized zoning regulations, and in the conduct of individual case reviews. The Advisory Circular complements FAR Part 77, and together they provide an overall means to protect the navigable airspace at local airports. In addition, per FAR Part 77, Section 77.13(a), notice to the Federal Aviation Administration (FAA) is required for any proposed structure more than 200 feet Above Ground Level (AGL) of its site. To coincide with this regulation, the ALUC also requires notification for such projects regardless of where within the jurisdiction of the County of Orange the project would be located. This may or may not result in referral of a project to the ALUC.

[3] The results of an aeronautical study conducted by the FAA pursuant to FAR Part 77.13 will be utilized to help determine if a structure will have an adverse effect on the airport or on aeronautical operations. If the proposed object is concluded to be a potential hazard to air navigation, the FAA may object to its construction, examine possible revisions of the proposal to eliminate the problem, require that the object be appropriately marked and lighted as an airspace obstruction, and/or initiate changes to the aircraft flight procedures for the airport so as to

¹ See conflicting determination in the same section of the AELUP, set forth in [4] below.

account for the object. The ALUC considers projects that are a hazard to air navigation to be Inconsistent with the *AELUP for JWA*.

[4] The Commission considers and recognizes the FAA as the single "Authority" for analyzing project impact on airport or aeronautical operations, or navigational-aid siting, including interference with navigational-aids or published flight paths and procedures. The Commission also considers the FAA as the "Authority" for reporting the results of such studies and project analyses. The Commission will not consider the findings of reports or studies conducted by parties other than the FAA unless the FAA certifies and adopts such findings as true and correct.

In those portions of the height restriction planning areas that lie outside of the Safety Zones and 60 dB CNEL Contours, or other areas of special concern as delineated by the FAA and adopted by the Commission, local agencies are required to submit only those matters which contemplate structures that would penetrate the imaginary surfaces as defined in FAR Part 77.13, 77.25, or 77.28 which have been designated for each individual airport for height restriction referral.” [Emphasis added].

E. AELUP, § 3.2.6 – The Airport Land Use Commission Also Accepts the Lighting and Marking of Obstructions as Sufficient Mitigation

“Height Restriction Zone

... The standards, criteria, and procedures promulgated by the FAA for the thorough evaluation of development projects are designed to ensure the safe and efficient use of the navigable airspace. The application of these principles by the Commission will ensure the stability of local air transportation, as well as promote land uses that are compatible with the airport environs. However, any object which rises above the height of surrounding development, or which is located in close proximity to any of the various flight paths, must be clearly visible during hours of twilight or darkness and must not threaten, endanger, or interfere with aeronautical operations. Such objects, even if within the above height restrictions, are not acceptable to the Commission unless they are clearly marked or lighted according to FAA standards.” [Emphasis added].

F. Pub. Util. Code § 21674(a); Pub. Util. Code § 21674(b) – Based on the Above, the Role of the ALUC is Not to Make Determinations About Safety of Air Navigation but to “Assist” and “Coordinate” Those of Local Jurisdictions Concerning Land Use Around Airports

“The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.”

CITY COUNCIL RESOLUTION NO. 17-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING FINDINGS TO OVERRIDE THE AIRPORT LAND USE COMMISSION FOR ORANGE COUNTY INCONSISTENCY DETERMINATION FOR THE LANDMARK PROJECT LOCATED AT 18872, 18912 AND 18952 MACARTHUR BOULEVARD IN PLANNING AREA 36 (IRVINE BUSINESS COMPLEX); FILED BY GREAT FAR EAST, LLC

WHEREAS, an application has been filed by Great Far East, LLC, for The Landmark Project (Commercial Master Plan 00659728-PMPC) to allow development of a 15-story, 386-room hotel, a 15-story office building and ground level restaurant/retail space located at 18872, 18912 and 18952 MacArthur Boulevard in Planning Area 36 [Irvine Business Complex (IBC)]; and

WHEREAS, the maximum building height allowed for the project site, which is within the 5.1 IBC Multi-Use zoning district, is as follows:

Irvine Zoning Ordinance Section 3-37-29(G), Maximum building height. Federal Aviation Administration (FAA) height limits as determined in accordance with Part 77 of the FAA regulations; and

WHEREAS, in accordance with the Irvine Zoning Ordinance requirement for FAA review of project height, on January 24 and March 10, 2017, FAA *Determinations of No Hazard to Air Navigation* were issued for the 204-foot tall above ground level (AGL) hotel and 253-foot AGL tall office building proposed at the project site, in compliance with Section 3-37-29(G) of the Irvine Zoning Ordinance; and

WHEREAS, at a duly noticed public hearing on April 20, 2017, the Airport Land Use Commission (ALUC) of Orange County reviewed the project and made a determination that the proposed project is:

- A. Inconsistent with the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (JWA) per ALEUP Sections 1.2 and 2.1.4 and PUC Section 21674; and
- B. Inconsistent with the AELUP for Heliports per Section 1.2; and

WHEREAS, pursuant to Public Utilities Code Sections 21670 and 21676, the City of Irvine may, after a public hearing, propose to overrule the decision of the ALUC by a two-thirds vote of the City Council, if the City of Irvine makes specific findings that the proposed project is consistent with the purposes of Section 21670; and

WHEREAS, on May 25, 2017, the City provided a 45-day notice to the ALUC and the California Department of Transportation Division of Aeronautics, via certified post, of

the City Council's intent to consider an override of the ALUC determination of inconsistency with the AELUPs for JWA and for Heliports for The Landmark Project; and

WHEREAS, on June 15, 2017, the Irvine Planning Commission considered evidence presented by City staff, the applicant and other interested parties at a duly noticed public hearing and approved the Commercial Master Plan for The Landmark Project by a vote of 4-0-1 (Commissioner Bartlett absent); and

WHEREAS, on June 20, 2017, the Irvine Transportation Commission considered the project Access Study along with evidence presented by City staff, the applicant and other interested parties at a public hearing and unanimously voted to accept the Access Study without revision; and

WHEREAS, on June 22, 2017 a City Council public hearing notice was published in the *Irvine World News*, was mailed to all property owners and occupants within a 500-foot radius of the subject site, and was posted on the site and at designated locations throughout the City; and

WHEREAS, on July 11, 2017, the City Council of the City of Irvine considered evidence presented by City staff, the applicant and other interested parties at a public hearing and continued the item to the July 25, 2017 hearing date; and

WHEREAS, the City Council of the City of Irvine considered evidence presented by City staff, the applicant and other interested parties at a public hearing on July 25, 2017.

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

SECTION 1. The Recitals above are true and correct and incorporated herein by this reference.

SECTION 2. The findings required by Sections 21670 and 21676 of the Public Utilities Code to override the ALUC determination that The Landmark Project is inconsistent with the AELUP for JWA are hereby made as follows:

- A. It is in the public interest to (1) provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to (2) promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to (3) prevent the creation of new noise and safety problems.

(1) To provide for the orderly development of JWA and the area surrounding the airport, the ALUC adopted the 2008 AELUP on April 17, 2008. AELUP Section 2.1 sets forth specific standards and criteria for new development, which is based on the continuing operation of JWA as a commercial and general aviation

airport. The AELUP standards/criteria guide development proposals to best provide for orderly development within the area surrounding JWA. Specific criteria for consideration include: Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions. These AELUP standards are technically met allowing the project to be consistent with the JWA AELUP. Specific compliance with Section 2.1 is described as follows:

- a. Aircraft Noise – The Landmark Project is located within the 60 CNEL Contour. However, noise measures set forth in the 2008 IBC Vision Plan Environmental Impact Report (EIR) will apply to The Landmark project. The measures are as follows:

- I. Plans, Programs and Policies (PPP) 9-1 Control of Construction Hours: Construction activities occurring as part of the project shall be subject to the limitations and requirements of Section 6-8-205(a) of the Irvine Municipal Code which states that construction activities may occur between 7 a.m. and 7 p.m. Mondays through Fridays, and 9 a.m. and 6 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles and equipment that are making, or are involved with, material deliveries, loading or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.
- II. PPP 9-2 Acoustical Report: Prior to the issuance of building permits for each structure or tenant improvement other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development. The report shall show that the development will be sound attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. The final acoustical report shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). To demonstrate that all mitigation measures have been incorporated into the project, the report shall be accompanied by a list identifying the sheet(s) of the building plans that include the approved mitigation measures.

- III. Project Design Feature (PDF) 9-2: Prior to issuance of grading permits, the project applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved.
- i. Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturer's standards.
 - ii. Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development.
 - iii. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, whenever feasible.
 - iv. Construction of sound walls that have been incorporated into the project design prior to construction of the building foundation; or installation of temporary sound blankets (fences typically composed of poly-vinyl-chloride-coated outer shells with adsorbent inner insulation) placed along the boundary of the project site during construction activities.
- IV. PDF 9-3: As described in the proposed zoning for the project, prior to issuance of certificate of occupancy, the project applicant shall submit evidence to the satisfaction of the Director of Community Development that occupancy disclosure notices for units with patios and/or balconies that do not meet the 65 dBA CNEL are provided to all future tenants pursuant to the City's Noise Ordinance.
- V. PDF 9-4: As described in the proposed zoning for the project, residential and active recreational areas shall be prohibited in the 65 dBA CNEL noise contour of JWA. In addition, as described in the proposed zoning for the project, prior to issuance of building permits, the project applicant for any project within the 60 dBA CNEL contour of JWA shall retain an acoustical engineer to prepare an acoustic analysis that identifies required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to achieve the 45 dBA CNEL interior noise standard of Title 21 and Title 24 of the California Building Code. In addition to the 24-hour interior noise standard, the acoustic report shall detail compliance with the City's interior noise standard of 55 dBA Lmax for single-event noise generated by the loudest 10 percent of aircraft overflights at JWA. Parks within the 60 dBA CNEL noise contour shall include signage

indicating their proximity to JWA and related airport noise. The acoustic analysis shall be submitted to the Director of Community Development to ensure compliance.

Finally, as is required per Section 11010 of the California Business & Professions Code, the following statement will be included on sale/lease disclosure documents for this project:

Notice of Airport in Vicinity

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

- b. Safety Compatibility Zones – The Landmark Project is located outside of the JWA Runway Protection Zone as depicted in Appendix D of the AELUP. The ALUC has not adopted an Accident Potential Zone for this airport because none could be justified with available data.
- c. Building Height Restrictions – The height of the hotel and office buildings proposed as part of The Landmark Project do not exceed the airport building height restriction as evidenced by the issuance of FAA *Determinations of No Hazard to Air Navigation* for the project. In its Determinations dated January 24 and March 10, 2017, the FAA asserts that the hotel and office buildings would have no significant adverse effect on air navigation. Pursuant to federal law, the FAA has sole review authority to determine whether proposed developments will result in hazards or impediments to air navigation safety.

The hotel building, at a height of 206 feet AGL / 253 feet above mean sea level (AMSL), and the office building, at a height of 253 feet AGL / 301 feet AMSL, were found to cause no hazard by the FAA. Specifically, the Determinations state that the Aeronautical Studies prepared for the proposed project by the FAA:

“considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the

studied structure[s] when combined with the impact of other existing or proposed structures. Th[ese] stud[ies] disclosed that the described structure[s] would have no substantial adverse effect on air navigation.”

As required by the FAA Determination because the buildings are considered to be obstructions (i.e., they exceed 200 feet AGL), a condition of approval was added to Planning Commission Resolution 17-3615, approving the Commercial Master Plan for The Landmark Project, which requires the hotel and office building to be marked and lighted in accordance with FAA Advisory Circular 70-7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5 (Red) & 12.

In addition to the proposed buildings on the project site, there are several other large buildings within the immediate vicinity. Within the JWA Safety Zone surrounding the airport, there are buildings up to 315 AMSL in height. The proposed Landmark Project would be consistent and compatible with other tall development in the vicinity. Surrounding multi-story buildings include:

- I. 2600 Michelson – 16 stories (constructed in 1986)
- II. Tower 17, 18881 Von Karman – 17 stories (1987)
- III. Jamboree Center, 1-5 Park Plaza – 19 stories (1989-90)
- IV. 2030 Main Street – 16 stories (1990)
- V. Lakeshore Tower, 18007 Von Karman – 18 stories (1990)
- VI. MacArthur Court, 4675 MacArthur Ct, Newport Beach (two towers located closest to the project site) – 15 stories (1985)
- VII. 3161 Michelson – 19 stories (2007)

Because the FAA has preemptive authority over the determination of air safety, pursuant to federal law (see e.g. 49 U.S.C. 40103(a)(1)), and regulation, 14 C.F.R. Part 77, as well as State law (see Public Utilities Code Section 21240), the provisions of FAR Part 77 govern in this case.

The AELUP, Section 2.1.3, confirms these federal standards by saying “[i]n adopting criteria for building height restrictions in the vicinities of airports, the commission considered only one standard and that was Federal Aviation Regulations Part 77...These regulations are the only definitive standard available and the standard most generally used.” Thus, even though the applicant went beyond typical requirements in achieving compliance with the requirements of Part 77, the Irvine City Council relies on Part 77.9(e)(1) which expressly exempts a structure from the analysis requirements of Part 77 if it is “shielded by existing structures of a permanent or substantial nature...and will be located in the congested area of a city...”. As demonstrated above, there are existing structures in the immediate vicinity which serve to shield the project site.

Furthermore, Section 2.1.3 allows the ALUC to “utilize the results of an Aeronautical Study, conducted by the FAA pursuant to FAR Part 77.13, to determine if a structure will have an adverse effect on the airport or on aeronautical operations.” As stated above, the Aeronautical Studies completed by the FAA for the proposed project found that the project would not have adverse impacts on air navigation. Specifically, the Determinations asserted “there is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure Terminal Instrument Procedures for JWA.”

Finally, the April 20 ALUC Agenda Report states that the hotel penetrates the 206 foot AMSL horizontal surface for JWA by 47 feet and the office building by 95 feet. There is a provision to allow such penetration, via a purchase of air rights from the County of Orange pursuant to an Easement granted to Orange County by the City of Irvine in 1964 for overflights from John Wayne Airport.

14 C.F.R. Part 77 has been amended numerous times since the 1964 Easement referenced by the County was granted by the City of Irvine, and most recently under Docket No. FAA 2006-25002, 75 Fed. Reg. 42303, July 1, 2010. Moreover, under revised Part 77, the FAA has found no hazard posed by the project in the use of the airspace over which the easement is granted.

(2) The City of Irvine requires that all development proposals meet the City’s noise standards of 45 dB CNEL for the interior of buildings classified as belonging to Noise Zone 1 in the Irvine Municipal Code (Section 6-8-204(A)(2)), which is consistent with the standards established to promote the overall goals and objectives of the California airport noise standards.

As discussed above, several measures related to noise impacts are identified for the proposed project. The project proponent will be tasked with demonstrating compliance with each measure prior to the issuance of building permits. Through implementation of the City’s Noise Ordinance standards, the project will meet AELUP standards for California airport noise.

(3) The standards set forth in Section 2.1 of the AELUP were adopted to prevent the creation of new noise and safety problems within the vicinity of JWA. The Landmark Project complies with the standards/criteria established in Section 2.1 (Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions), as discussed previously.

The Irvine City Council and Planning Commission have reviewed the general aviation flight tracks that were provided in a letter from ALUC dated June 26, 2017. These diagrams show a limited number of general aviation aircraft (helicopters and propeller planes) that fly over the site based on a daily survey performed. The daily tracks show that aircraft flew at elevations ranging from 305

to 1,428 feet AMSL, with an average height of 860 feet AMSL for the day surveyed. The office building measures 301 feet AMSL, so it is evident that the average flight path is at a substantially higher elevation than the project site. The flight tracks clearly show that the flight path for general aviation aircraft using Runway 2 at JWA is located to the east, nowhere near the project site. The Landmark Project is not located within established flight paths associated with approach or departure from JWA.

By requiring project adherence to the established standards in the AELUP, the City has taken measures to assure that risks to people and property on the ground, as well as to the occupants of aircraft, are held to a minimum.

- B. It is the purpose of Chapter 3.5 of the State Aeronautics Act to protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

The proposed project meets the purposes set forth in the State Aeronautics Act, Cal. Pub. Util. Code § 21670 and the AELUP Section 2.1 related to Aircraft Noise, Safety Compatibility Zones, and Building Height Restrictions, as discussed previously, in that it:

1. Provides for the orderly development of John Wayne Airport by ensuring that building heights and structures do not violate any federal statutory requirements or FAA regulations and standards, or incur upon any flight paths regularly used by aircraft arriving, departing or circling JWA.
2. Promotes the overall goals and objectives of the California airport noise standards, and prevents the creation of new noise and safety problems by: (a) implementing noise measures set forth in the 2008 IBC Vision Plan EIR, including limits on construction hours; (b) requiring an acoustical report before the grant of building permits for each structure; (c) complying with project design features 9-2, 9-3 and 9-4; (d) complying with Irvine Municipal Code § 6-8-204(A)(2), requiring that the interior of buildings classified as belonging to Noise Zone 1 meet the City's noise standards of 45 dB CNEL for the interior of buildings.
3. In addition the following additional conditions are imposed:
 - a. Sound attenuation of noise impacts to meet City and California airport minimum standards;
 - b. "Notice of Airport in Vicinity" to future hotel guests and office tenants;
 - c. Obstruction lighting and marking consistent with FAA Advisory Circular 70-7460-1; and

- d. Outdoor signage depicting the presence of operating aircraft in public spaces on the project site.
- C. Based upon these findings, the City Council does hereby override ALUC's decision finding that the Landmark Project is incompatible with the AELUP for JWA.

SECTION 3. The ALUC determined that The Landmark Project is also inconsistent with the AELUP for Heliports. The Irvine City Council finds as follows:

The ALUC found the proposed Landmark Project to be inconsistent with Section 1.2 of the AELUP for Heliports. Sections 1.2 and 2.1.4 of the AELUP relate to the siting of heliports, not the operation of helicopters around existing airports. Section 1.2 states, in pertinent part, "[t]his land use compatibility plan for heliports intends to safeguard the general welfare of the inhabitants within the vicinities of heliports by reviewing proposed heliport sites to determine if the proposed site is compatible with adjacent existing or proposed uses.". Other sections are equally limiting. In Section 2.1.4, for example, the AELUP for Heliports states: "The Commission is charged with reviewing the expansion of existing public/private use heliports/helistops and the development of new heliports/helistops." Neither one of those sections is relevant to the issue, as both apply to the siting of heliports, not with new development projects surrounding heliports.

Furthermore, in the April 20, 2017 ALUC agenda report, it is stated that helicopter operations are part of JWA general aviation operations of the proposed project site. While it may be accurate that helicopters currently fly over the project site, there was no evidence provided to show that this is a specific flight path set for helicopters; they may pursue other routes should the project be constructed.

As there are no heliports proposed as part of The Landmark Project, the City Council hereby finds that the AELUP for Heliports does not apply and, therefore, overrides this specific finding of inconsistency.

SECTION 4. That the City Clerk shall certify to the passage and adoption of this Resolution and enter it into the book of original Resolutions.

NOW, THEREFORE, based on the above findings, the City Council of the City of Irvine DOES HEREBY OVERRIDE the decision of the Airport Land Use Commission for Orange County, which found that The Landmark Project is inconsistent with the Airport Environs Land Use Plans for John Wayne Airport and for Heliports.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the 25th day of July 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 25th day of July 2017.

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

ABSTAIN: COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

July 20, 2017

City Council
City of Irvine
1 Civic Center Plaza
Irvine, CA 92606-5208

SUBJECT: Additional Information Regarding Intent to Overrule ALUC Inconsistency Determination for Landmark Project

Honorable Mayor and City Council Members:

At your recent meeting on July 11, 2017, the City Council voted to continue its public hearing on the proposed overrule of the Airport Land Use Commission (ALUC) for Orange County's determination of "Inconsistency" on the Landmark Project. The ALUC appreciates your thorough review of information, especially related to air safety concerns. There were a number of questions brought up by Council Members and others at the July 11th meeting, which are addressed as follows:

1. What is the significance of John Wayne Airport (JWA) references to "206 feet above mean sea level (AMSL)?"

Federal Aviation Regulation (FAR) Part 77, Section 77.19 defines various civil airport imaginary surfaces. Specifically, Section 77.19 (a) addresses the calculation for an airport's Horizontal Surface as a "horizontal plane 150 feet above the established airport elevation." In the case of John Wayne Airport, the established airport elevation is 56 feet above mean sea level (AMSL). Therefore, 150 feet above 56 feet equals 206 feet AMSL, the calculated Horizontal Obstruction Surface for JWA. This surface extends out in an approximate 10,000 feet radius above the JWA main runway. The airspace above this horizontal plane is reserved for air navigation.

As noted at the July 11, 2017 Council meeting, there are also other imaginary surfaces defined by FAR Part 77, Section 77.19, including a Conical Surface, Primary Surface, Approach Surface and Transitional Surface.

2. Why is an elevation of 203.68 feet sometime used in older documents?

References to 203.68 feet are using older vertical datum, specifically NGVD29. For example, an "avigation easement" above JWA, which was deeded to the County of

Orange in 1964, uses the former NGVD29 datum reference of 203.68 feet. To convert the former NGVD29 to currently used NAVD88 vertical datum, simply add 2.4 feet to the NGVD29 elevation. Therefore, 203.68 feet NGVD29 plus 2.4 feet, equals 206.08 feet NAVD88 (which is rounded to 206 feet).

3. Why are there other tall buildings that have been approved near John Wayne Airport?

The majority of existing tall buildings near JWA exceeding the 206 feet horizontal obstruction surface have been found “Inconsistent” by the ALUC; however, surrounding cities have overruled the ALUC “Inconsistency” findings, and the buildings were ultimately constructed based upon city approvals.

4. When does FAA consider shielding in its evaluations?

FAA Order JO 7400.2H - Procedures for Handling Airspace Matters, considers a structure shielded when the following parameters are met: a) physical protection is provided by terrain or permanent structures of equal or greater height than the structure under study; b) the existing permanent structures are not more than 500 feet horizontal distance from the proposed structure; c) The shielded structure is not located closer to the airport than the shielding structure; and d) at least one such shielding structure is situated on at least three sides of the shielded structure. The proposed project buildings do not appear to meet these criteria for being shielded.

5. Why was a recent City of Santa Ana project found Inconsistent?

A recent project in the City of Santa Ana, that did not exceed height restrictions, was referenced at the last Irvine City Council meeting. The ALUC found this project “Inconsistent” not because of building heights, but rather due to the Commission’s concern that rezoning from a Commercial/Industrial use to Residential use in an area that was directly under the centerline of the JWA primary aircraft approach corridor, would cause undue exposure of future residents to aircraft overflight. The majority of flights over this Santa Ana property are in the range of 500 to 700 feet above ground level and arrive in very close intervals in the morning and evening hours. In considering this project, the ALUC noted that low approaching aircraft and residential uses would not coexist well together.

6. What is FAA’s authority compared to ALUC’s mandate?

The FAA has authority over navigable airspace, however, FAA also acknowledges in its determination for the proposed Landmark project that, "This determination is issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft, and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body," and continues, "Determinations, which are issued in accordance with

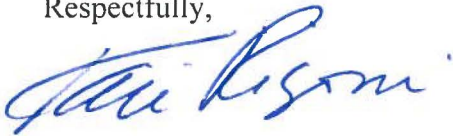
Part 77, do not supersede or override any state, county, or local laws, aviation easement or ordinances, or local zoning maximum heights."

Regarding the authority for Airport Land Use Commissions, the State of California Public Utilities Code (PUC) State Aeronautics Act, which establishes Airport Land Use Commissions, states that an ALUC is charged by PUC Section 21674(a) "to assist local agencies in ensuring compatible land uses in the vicinity of ...existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses," and, per PUC Section 21674(b), "to coordinate planning at the state, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety and welfare."

In closing, it should be noted that the ALUC also has the responsibility to consider a broader perspective in matters affecting the public's well-being and the viability of public aviation facilities. The ALUC for Orange County does not maintain or promote a "no development around airports" viewpoint (e.g., "only agricultural uses," as stated by the project applicant). In fact, the land uses proposed for the Landmark project are appropriate uses for the airport area. The "Inconsistency" finding was made based upon the heights of the buildings above the JWA Horizontal Obstruction Surface.

The Airport Land Use Commission urges the Irvine City Council to take all of these comments into consideration in its deliberations before deciding whether to overrule the ALUC. Thank you for the opportunity to provide these comments.

Respectfully,



Kari Rigoni
Executive Officer

cc: Members of the Airport Land Use Commission for Orange County
Barry A. Rondinella, Director, John Wayne Airport
Tony Sordello, Caltrans/Division of Aeronautics
Stephanie Frady, City of Irvine

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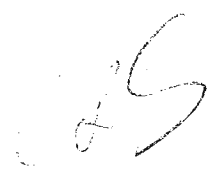
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JUL 17 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Sean Joyce, City Manager
From: Councilmember Christina Shea 
Date: July 17, 2017
Re: **Animal Care Center Redesign Update**

Among the many essential services provided by our City, are those directed towards taking care of animals at our Irvine Animal Care Center (IACC).

Apart from adopting new operational policies and procedures, and hiring a new manager for that facility, several years ago, I requested that we explore redesigning and expanding the current IACC, and a subcommittee was formed.

The Council agreed with my request and emphasized this desire in both the FY 2016-17 and the FY 2017-18 budgets. Last year's budget called for a new preliminary design and conceptual plan for the IACC. This year's budget includes a capital improvement project to finalize that design.

So that we might better understand what progress is being made on these tasks, I ask that at our next Council meeting, staff provide us with an update.

cc: City Council
City Attorney
City Clerk